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## Elephant / Proboscidea Bibliography: 1987-2000

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**ELEPHANT / PROBOSCIDEA BIBLIOGRAPHY: 1987 — 2000**

by the Bibliography Committee of the Elephant Research Foundation

The work of the Bibliography Committee of the Elephant Research Foundation (ERF) over the past 13 years is condensed in these pithy pages. We are proud of the results and share them with our readers. Following is a summary of the main points covered in this Bibliography.

- As in previous issues of Elephant, we provide what we have been told is “the most important service ERF provides” — the ELEPHANT / PROBOSCIDEA BIBLIOGRAPHY. Field workers and readers who have limited or no access to computerized facilities are particularly appreciative of the annotated references; we are pleased that they make use of this service. Many of our references are cross-referenced.
- With the publication of this issue of Elephant, we have added numerous references from various sources [some are listed in Elephant, 2(3):123]; others were provided by M. Philip Kahl, Iain Douglas-Hamilton, and their co-workers (details below). A total of 3,409 annotated and/or coded references on living and extinct elephants/proboscideans has been added since the last issue (Vol. 2, No. 3; 1987) was published. Included are references in the Addenda that were added after numbering had been set in final proof for this issue. The current Bibliography is divided into two main sections: “ELEPHANT / PROBOSCIDEA BIBLIOGRAPHY” (3,346 references) and “JUNIOR ELEPHANT BIBLIOGRAPHY” (63 references). With these additions, the current total of entries in Elephant is 5,855 references<sup>1</sup>. Many of the references included in our Bibliography are found in the ERF Library. Special efforts were made to stress references for young readers for they are the future sentinels of our heritage.
- This issue’s Bibliography differs from previous bibliographies published in Elephant in that it includes not only our four-letter codes in the left margin, after the reference number, and our annotations [annotations by staff of ERF, designated simply as “Annotation”, with initials of the person(s) who annotated], but also annotations by M. Philip Kahl (designated as “MPK”) and Iain Douglas-Hamilton (designated as “ID-H”). The annotations for ID-H were meticulously compiled by Mary and Doug Rigby, thus the symbols “ID-H/M&DR” are used. Each annotation is followed by the initials of the person(s) who wrote the annotation. Many annotations were edited for brevity by our Final Copy Editor Estelle R. Davidson. Since there are many annotators, it is probable that each annotator will interpret the subject matter differently, thus there may be inconsistencies in the codes, particularly if the originals were not consulted. We suggest that you check the originals to verify their contents.
- We tried our utmost to be as accurate as possible in obtaining original references. Since many of the citations were taken from different sources, we did not always see the originals and were unable to verify the accuracy of the citations. In many cases four-letter codes for citations were given based on the title only, thus some errors may exist. To reduce/avoid confusion, names of sources (e.g., journals, magazines) are written without abbreviations.
- With such voluminous data that are constantly changing, there are bound to be errata (see ERRATA in ENN). We ask our readers to please help us correct and update our files by sending complete references or copies of articles. We will continue to share our sources with everyone — man and beast will benefit.
- We take pride in our efforts and send heartfelt thanks to all our volunteers (see list of annotators below). We are deeply grateful for the contributions by Phil Kahl and Mary Rigby. Their annotations make this ELEPHANT / PROBOSCIDEA BIBLIOGRAPHY that much more important and practical for elephant researchers worldwide. The preparation of this bibliography for printing in Elephant would be impossible without the continuous and invaluable contribution of volunteer Eleanor C. Marsac.

**Other Notes**

Sequence of appearance of citations in this Bibliography is as follows:

- One author, year of publication, within the same year, listed chronologically, then alphabetically by title, [excluding articles, such as “the”, “an”, and “a”], and then by subsequent years;
- Same author with only one co-author, in the same chronological sequence as above;
- Same author with two co-authors, arranged alphabetically by the first co-author, not by year;
- Same author with three co-authors, arranged alphabetically by co-authors, not by year, and so forth.
- Whenever possible, we are including the last names of authors in small capital letters, followed by the first names written in full. This system reduces confusion; see for example MARCHANT, Garry and MARCHANT, Gary (it would be impossible to differentiate if only first initials were used). When an author’s name has more than one initial, either revealed in the literature or based on our personal knowledge, we have added the initial to some references when they were not present (e.g., Dublin, Holly T. — the “T.” was added to references, sometimes in square brackets); see also Barnes, Richard [F. W.] (1989).
- In Eritrea, first names, rather than second/last names, are used for citation of authorship. Family names as commonly employed by some nationalities are not used; instead, patronymics (fathers’ first names) are employed as second names for sons and daughters; cf. HAGOS, Yohannes (2000).

<sup>1</sup>Previous references in Elephant appeared in this sequence:

Elephant, 1(1):15-17, Reference numbers 1-57 [unnumbered]  
Elephant, 1(2):57-61, Reference numbers 58-387  
Elephant, 1(3):69-90, Reference numbers 388-835  
Elephant, 1(4):262-295, Reference numbers 836-1346

Elephant, 2(1):198-229, Reference numbers 1347-1804  
Elephant, 2(2):223-264, Reference numbers 1805-2229  
Elephant, 2(3):124-143, Reference numbers 2230-2446  
Elephant, 2(4):116-272, Reference numbers 2447-5855

- Omitted from this roster of references, with very few exceptions, are unpublished reports, manuscripts, and drafts, many of which are found in the libraries of the Elephant Research Foundation and of Iain Douglas-Hamilton. Some of those reports and manuscripts may have been published in house organs or newsletters.

On page 119 we provide a key for the four-letter codes preceding references which have been useful to many of our readers. Please note the following:

- As a matter of standard, all extinct proboscideans (those with \* in the first column) are assigned a "U" in the fourth column. Explanation: proboscideans that lived millions of years ago most likely were not captive, but since it is not always possible to determine the geological date and whether or not they were associated with humans during the Pleistocene epoch, we have adopted a policy to simplify the coding system and code them all as "U".
- In many places, annotations were excerpted and/or edited (e.g., changed from British to American spelling), and specifically shortened.
- Annotated references in this issue of *Elephant* include only references on living and extinct elephants/proboscideans published from January 1, 1987 through December 31, 1999, which include citations for the year 2000.

For easy reference we provide below range states for the African and Asian elephants.

**African elephant range states** [37 countries which have free-roaming elephants, *Loxodonta africana* and *L. cyclotis*, as of March 1998; see Douglas-Hamilton and Michelmore, 1996 (Reference number 3325 in this issue), page 322]: Angola, Benin (formerly Dahomey), Botswana, Burkina Faso (formerly Upper Volta), Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Ghana, Guinea, Guinea Bissau, Ivory Coast, Kenya, Liberia, Mali, Malawi, ~~Mauritania~~, Mozambique, Namibia, Niger, Nigeria, Democratic Republic of the Congo (formerly Zaire), Rwanda, Senegal, Sierra Leone, Somalia, Republic of South Africa, Sudan, Tanzania, Togo, Uganda, Zambia, and Zimbabwe. *Swaziland*

**Asian elephant range states** [13 countries which have free-roaming elephants, *Elephas maximus*, as of March 1998; see Sukumar and Santiapillai, 1996 (Reference no. 5314 in this issue), page 331]: Bangladesh, Bhutan, China, India, Indonesia (Sumatra), Cambodia (also known as Kampuchea), Laos, Malaysia (Peninsular and Borneo), Myanmar (formerly Burma), Nepal, Sri Lanka, Thailand, and Vietnam.

#### Annotators

AML = Adrian M. Lister  
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**Abbreviations for technical terms and organizations that were used in annotations:**

- AbNP = Aberdare National Park, Kenya  
 AED = The African Elephant Database  
 AENP = Addo Elephant National Park, Republic of South Africa  
 AERSG = African Elephant and Rhino Specialist Group  
 AESG = Asian Elephant Specialist Group  
 AfESG = African Elephant Specialist Group  
 AMNH = American Museum of Natural History, New York, New York, USA  
 ANP = Amboseli National Park, Kenya  
 ArNP = Arusha National Park, Tanzania  
 AWF = African Wildlife Foundation  
 BID = Bad Ivory Database  
 CAMPFIRE (Communal Areas Management Program for Indigenous Resources)  
 cf. = *confer* (Latin for "compare to")  
 CITES = Convention on International Trade in Endangered Species of Wild Fauna and Flora  
 CNP = Chobe National Park, Botswana  
 DNPWLM = Department of National Parks and Wild Life Management Library, Harare, Zimbabwe  
 DROTC = Democratic Republic of the Congo (capital Kinshasa); formerly Zaire  
 DSR = Dzanga-Sangha Reserve, Central African Republic  
 EIA = Environmental Investigation Agency  
 ENP = Etosha National Park, Namibia  
 EPA = Environmental Protection Agency  
 EU = European Community  
 FAO = Food and Agriculture Organization  
 FFI = Fauna and Flora International  
 GaNP = Garamba National Park, Democratic Republic of the Congo (formerly Zaire)  
 GEMS = Global Environmental Monitoring System, at UNEP  
 GIS = Geographic information system at GRID  
 GNP = Gonarezhou National Park, Zimbabwe  
 GPS = Global Position System  
 GRID = Global Resource Information Database  
 HGR = Hluhluwe Game Reserve, South Africa  
 HNP = Hwange National Park, Zimbabwe  
 HSUS = Humane Society of the United States  
 IIED = International Institute for Environment and Development  
 ISC = International Society of Cryptozoology  
 IUCN = International Union for Conservation of Nature and Natural Resources  
 JEB = Junior Elephant Bibliography  
 JEMA = Journal of the Elephant Managers Association  
 KalNP = Kalamaloue National Park, Cameroon  
 KaNP = Kasungu National Park, Malawi  
 KBNP = Kahuzi-Biega National Park, Democratic Republic of the Congo (formerly Zaire)  
 KFNP = Kabalega Falls National Park, Uganda  
 KNP = Kruger National Park, Republic of South Africa  
 KNPFR = Kilimanjaro National Park and Forest Reserve, Tanzania  
 KVNP = Kidepo Valley National Park, Uganda  
 LGR = Lopé Game Reserve, Gabon  
 LIFE = Living in a Finite Environment  
 LMNP = Lake Manyara National Park, Tanzania  
 LNP = Luangwa National Park, Zambia  
 MaiNP = Maiko National Park, Democratic Republic of the Congo (formerly Zaire)  
 MaNP = Matusadona National Park, Zimbabwe  
 MENP = Mount Elgon National Park, Kenya  
 MFNP = Murchison Falls National Park, Uganda  
 MGR = Majete Game Reserve, Malawi  
 MKNP = Mount Kenya National Park, Kenya  
 MMGR = Masai Mara Game Reserve, Kenya  
 MNP = Mikumi National Park, Tanzania  
 MPNP = Mana Pools National Park, Zimbabwe  
 NGO = Non-governmental organization  
 NGR = Nazinga Game Ranch, Burkina Faso  
 NNP = Nairobi National Park, Kenya  
 PNP = Pilanesberg National Park, Republic of South Africa  
 OENP = Queen Elizabeth National Park, Uganda  
 RCNP = Royal Chitwan National Park, Nepal  
 REF = Rhino and Elephant Foundation  
 RNP = Ruaha National Park, Tanzania  
 SACIM = Southern African Centre for Ivory Marketing [on June 20, 1991, countries include: Botswana, Namibia, South Africa, Zambia, and Zimbabwe; proposed that the utilization of products other than ivory gleaned from culled populations could be sold]  
 SAVA = South African Veterinary Association  
 SGR = Selous Game Reserve, Tanzania  
 SNP = Serengeti National Park, Tanzania  
 SSC = Species Survival Commission  
 SWRA = Sengwa Wildlife Research Area, Zimbabwe  
 TaiNP = Tai National Park, Democratic Republic of the Congo (formerly Zaire)  
 TaNP = Tarangire National Park, Tanzania  
 TGR = Tuli Game Reserve, Botswana  
 TNP = Tsavo National Park (includes East and/or West sections), Kenya  
 TRAFFIC = Trade Records Analysis of Flora and Fauna in Commerce [publication names: TRAFFIC, TRAFFIC (U.S.A.), Traffic Bulletin, and TRAFFIC Bulletin]  
 UGR = Umfolozi Game Reserve, Republic of South Africa  
 UN = United Nations  
 UNEP = United Nations Environmental Program  
 UNESCO = United Nations Environmental, Scientific and Cultural Organization  
 USAID = The United States Agency for International Development  
 VHF = Very high frequency  
 VMGR = Vwaza Marsh Game Reserve, Malawi  
 VNP = Virunga National Park, Democratic Republic of the Congo (formerly Zaire)  
 WCI = Wildlife Conservation International  
 WNP = Waza National Park, Cameroon  
 WPZ = Washington Park Zoo, Portland, Oregon, USA [now Oregon Zoo]  
 WSU = Wayne State University, Detroit, Michigan, USA  
 WWF = World Wildlife Fund  
 YGR = Yankari Game Reserve, Nigeria

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### Four-letter codes as used in ELEPHANT / PROBOSCIDEA BIBLIOGRAPHY (edited)

Categories listed in the first column:

E = *Elephas*  
L = *Loxodonta*  
B = *Elephas* and *Loxodonta*

\* = extinct/fossil proboscideans  
+ = extinct and living taxa  
U = unknown or not given

Categories listed in the second and third columns:

a = anatomy (including histology, cytology)  
b = behavior  
c = conservation and management  
d = diseases and injuries  
e = ecology (including biodiversity, taphonomy)  
f = folklore  
g = general  
h = history (including archaeology)  
i = ivory and tusks  
j = ecology and behavior  
k = culling, controlling, cropping,  
and capturing methods  
l = longevity (including mortality)  
m = measurements (physical and censusing)  
n = nutrition and/or growth

o = biochemistry (including  
hematology and immunology)  
p = physiology and/or function  
q = management in captivity  
r = reproduction (including musth, parenting)  
s = symbiosis (including  
commensalism, mutualism, parasitism)  
t = training and taming  
u = hunting, poaching, scavenging  
v = evolution (including classification,  
phylogeny, systematics,  
taxonomy, dating methods, extinction)  
w = distribution and habitat  
x = genetics  
y = art  
z = miscellaneous (including fiction)

Categories listed in the fourth column:

C = captive and domestic  
W = wild

B = Both statuses  
U = Unknown (with reference as to  
whether captive or wild)

#### PART I. ELEPHANT / PROBOSCIDEA BIBLIOGRAPHY

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- 2448 LkcW ABE, Eve Lawino. (1992). The status of elephants in Uganda: Queen Elizabeth National Park. *Pachyderm*, 15:49-52. **Annotation:** Overview trend from early sixties when population was so high, culling was deemed necessary, through the 1970's when military operations and rampant poaching brought population down to under 300 animals. Northern sector population of about 250 animals is study focus, but data will also be amassed for Kazinga group of about 60 and the Ishasha population of about 200 that move between QENP and Parc National Albert in Zaire [ID-H/M&DR].
- 2449 LucW ABE, Eve Lawino. (1993). Group size and ranging patterns of Queen Elizabeth National Park elephants. *Pachyderm*, 16:81.
- 2450 LcjW ABE, Eve Lawino. (1995). The behavioral ecology of elephant survivors in Queen Elizabeth National Park Uganda. D. Phil. thesis, Cambridge University, 179 pp.
- 2451 LuxW ABE, Eve Lawino. (1996). Tusklessness amongst the Queen Elizabeth National Park elephants, Uganda. *Pachyderm*, 22:46-47. **Annotation:** Genetics, poaching, population, behavior, reproduction; cf. annotation to Reference no. 5125 [MPK].
- 2452 \*gwU ABRACZINSKAS, Laura Marie. (1993). Pleistocene proboscidean sites in Michigan: new records and an update on published sites. *Michigan Academician*, 25(4):443-490.
- 2453 \*wvU ABRACZINSKAS, Laura Marie. (1994). The distribution of Pleistocene proboscidean sites in Michigan: a co-occurrence analysis of their relation to surface saline water. *Michigan Academician*, 27:65-80. **Annotation:** All Michigan proboscidean sites are located in southern half of Lower Peninsula. Distribution based on availability and distribution of environmental sodium, North American fossil sites from salt springs or salt deposits provide evidence of extinct proboscideans [E/ECM; p. 65].
- 2454 LuiW ACHIRON, Marilyn. (1988). Making wildlife pay its way. *International Wildlife*, 18(5):46-51. **Annotation:** Zimbabwe's pragmatic philosophy of wildlife management may not warm animal lovers hearts, but it is working [E/SLS].
- 2455 \*vwU ADAM, K. D. (1988). Über Pleistozäne Elefanten-Funde im Umland von Erzurum in Ostanatolien. Ein Beitrag zur Namengebung von *Elephas armeniacus* und *Elephas trogontherii*. *Stuttgarter Beiträge zur Naturkunde B (Geologie und Paläontologie)*, 146:1-89.

- 2456 BihB ADAMS, McG. Robert. (1989). Smithsonian horizons. Smithsonian [March], 19(12):14. **Annotation:** "In the African interior, the ivory trade and the slave trade helped each other become paying propositions" [E/ECM].
- 2457 LcwW ADAMS, Jonathan S. and MCSHANE, Thomas O. (1992). The myth of wild Africa: conservation without illusion. W. W. Norton, New York, 266 pp.
- 2458 LciW ADAMS, Jonathan S. and MCSHANE, Thomas O. (1992). Save the elephants. In The myth of wild Africa: conservation without illusion (ed. J. S. Adams and T. O. McShane), pp. 59-84. W. W. Norton, New York, 266 pp. **Annotation:** Conservation of elephants circa late 1980s. Concern for elephants in CITES that led to ivory ban. Most of data deals with East Africa, and research and continuing conservation efforts of Iain Douglas-Hamilton, Cynthia Moss and Joyce Poole [ID-H/M&DR].
- 2459 LicW ADAMS, Nathan M. (1990). The elephant's last chance. Reader's Digest, (July):46-52.
- 2460 EgqC ADAMS, N. M. (1993). All God's creatures. Reader's Digest, (April):137-144. **Annotation:** *Elephas maximus*, captivity, mistreatment, "Aziza", female Asian elephant in Kuwait Zoo. Inhumane treatment by Iraqis 1990-1991. See Reference no. 5839 in JEB [MPK].
- 2461 BhqC ADDIS, Mabel H. (1989). Somers history closely intertwines with circus show world. In Somers, its people and places, 1788-1900, a two hundred year history (ed. Richard Farmer Hess), pp. 119-138. Somers Historical Society, Somers, New York, 292 pp. **Annotation:** Includes histories and illustrations of the first and second elephants to reach North America "Old Bet" and "Little Bett" (both were known by other names), and the "Elephant Hotel" (completed in 1825, served as hotel) now serves as the Somers Town Hall [a picture of the Elephant Hotel appears in Elephant, 2(1):154; see also "Old Bet" under Individual Elephants, in Elephant Notes and News in this issue of Elephant]; cf Reference nos. 3445, 3940 [TA].
- 2462 +vaB ADOUTTE, André. (1999). Phylogénie des éléphants. Quelques surprises de taille. Compte rendus de l'Académie des Sciences, Paris, 322:445-446.
- 2463 \*vhU AGENBROAD, Larry D. (1988). The human factor in the Pleistocene megafauna extinction equation. In Americans before Columbus: Ice-age origins (ed. R. Carlisle), pp. 61-72. University of Pittsburgh Ethnology Monographs, No. 8.
- 2464 \*evU AGENBROAD, Larry D. (1989). Spiral fractured mammoth bone from non-human taphonomic processes at Hot Springs Mammoth Site, South Dakota. In Proceedings of the First International Bone Modification Conference (ed. R. Bonnicksen), pp. 139-147. University of Maine, Orono.
- 2465 \*emU AGENBROAD, Larry D. (1990). The mammoth population of the Hot Springs Site and associated megafauna. In Megafauna and man: discovery of America's heartland (ed. L. D. Agenbroad, J. I. Mead, and L. W. Nelson), pp. 32-39. The Mammoth Site of Hot Springs, South Dakota, Hot Springs, Scientific Papers, Volume 1, 149 pp.
- 2466 \*evU AGENBROAD, Larry D. (1992). The Mammoth Site of Hot Springs, South Dakota, USA. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 54-55. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London.
- 2467 \*vhU AGENBROAD, Larry D. (1994). A brief history of the Hot Springs Mammoth Site. In The Hot Springs Mammoth Site: a decade of field and laboratory research in paleontology, geology, and paleoecology (ed. L. D. Agenbroad and J. I. Mead), pp. 4-14. The Mammoth Site of South Dakota, Hot Springs, 457 pp.
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- 2470 \*vaU AGENBROAD, Larry D. (1994). Taxonomy of North American *Mammuthus* and biometrics of the Hot Springs mammoths. In The Hot Springs Mammoth Site: a decade of field and laboratory research in paleontology, geology, and paleoecology (ed. L. D. Agenbroad and J. I. Mead), pp. 158-207. The Mammoth Site of South Dakota, Hot Springs, 457 pp.
- 2471 \*vhU AGENBROAD, Larry D. (1995). Preliminary report of 1995 field excavation at the Mammoth Site of Hot Springs, South Dakota, Inc. The Mammoth Site of Hot Springs, South Dakota, Inc. Newsletter, October 1995:2 unnumbered pages.
- 2472 \*gvU AGENBROAD, Larry D. and BARTON, B. R. (1991). North American mammoths: an annotated bibliography 1940-1990. The Mammoth Site of Hot Springs, South Dakota, Inc., Hot Springs, Scientific Papers, Volume 2, 118 pp. **Annotation:** "Under one cover, references to the majority of published literature of the past fifty years for North American mammoths. More than 450 published references to the New World mammoths for the period 1942-1990" [E/JS].
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- 2483 \*vwU AGENBROAD, Larry D., LISTER, Adrian M., MOL, Dick, and ROTH, V. Louise (1994). *Mammuthus primigenius* remains from the Mammoth site of Hot Springs, South Dakota. In The Hot Springs Mammoth Site: a decade of field and laboratory research in paleontology, geology, and paleoecology (ed. L. D. Agenbroad and J. I. Mead), pp. 269-281. The Mammoth Site of South Dakota, Hot Springs, 457 pp.
- 2484 \*hvU AGENBROAD, Larry D., MEAD, Jim I., MEAD, E. M., and ELDER, D. (1989). Archaeology, alluvium, and cave stratigraphy: the record from Bechan Cave, Utah. Kiva, 54:335-351.
- 2485 \*avU AGUIRRE, Emiliano (1999). Molar inmaduro de mamut en Gran Dolina (Atapuerca, Burgos). [Mammoth milk molar in Gran Dolina (Atapuerca, Burgos)]. Revista Española de Paleontología, no. extr. Homenaje al Prof. J. Truyols, 135-142. **Annotation:** Milk molar (D4) of *Mammuthus*, aff. *M. meridionalis* "...either *M. m. 'tamanesis'*, or *M. m. 'voigstedtensis'*, or '*cromerensis*' or similar — more probably than to a primitive variety of *M. trogontherii*" [E/JS].
- 2486 \*gvU AGUIRRE, Emiliano and MORALES, J. (1990). Villafranchian faunal record of Spain. Quartärpaläontologie, 8:7-11.
- 2487 EqtC AIK, S. S. (1992). Preliminary observations on the training of Burmese elephants using xylazine. New Zealand Veterinary Journal, 40(2):81-84.
- 2488 \*vmU AKKERMAN, H. (1996). De vondst van de maand: de opgraving van de mammoet van borne. Cranium, 13(2):113-120 [summary and captions in English]. **Annotation:** Excavation and reconstruction of 42,000-34,000-year old remains of a woolly mammoth in the Netherlands [SLS].
- 2489 EdaU ALAHAKOON, Jayanthi. (1994). Presence of liver fluke *Fasciola jacksoni* in a Sri Lankan elephant. Gajah, 12:46-47.
- 2490 ErcC ALAHAKOON, Jayanthi. (1998). Breeding Asian elephants in captivity. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), pp. 20-21. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 2491 EwkW ALAHAKOON, Jayanthi and SANTIAPILLAI, Charles. (1997) Elephants: unwitting victims in Sri Lanka's civil war. Gajah, 18:63-65. **Annotation:** The casualties of the Sri Lankan civil war are not only people but wildlife, especially large mammals such as elephant and leopard that get caught in the cross fire [ERD, p. 63].
- 2492 BqtC ALBRIGHT, Richard. (1998). Elephant event. Circus Report, 41(26):13, 16. **Annotation:** On Labor Day weekend, about 50,000 people visit a park in Westmoreland County, Pennsylvania. The Circus, Elephant Encounter, was the feature attraction for 1998, presented by Bill Morris and his family, from Gibsonton, Florida. From March to October, the family travels the east coast and midwest to educate the public on elephants [E/ECM].
- 2493 \*bcW ALCOVER, Josep Antoni and MCMINN, Miquel. (1994). Predators of vertebrates on islands. BioScience, 44(1):12-18.
- 2494 \*vvU ALCOVER, Josep Antoni, CAMPILLO, Xavier, MACIAS, Marta, and SANS, Antònia. (1998). Mammal species of the world: additional data on insular mammals. American Museum Novitates, 3248:1-29. **Annotation:** Lists *Elephas creutzburgi* of Crete (pp. 8, 19); *Elephas cypriotes* of Cyprus (pp. 8, 19); *Mammuthus primigenius* and *M. exilis* of Santa Rosa and San Miguel Islands, California Channel Islands (pp. 9, 19); *Elephas* of Tylos and Cyclades (p. 12). Does not include species from islands that were connected to the mainlands during the last glaciation (e.g., Great Britain, Ireland, Palawan) except for a few continental islands that contain faunas exhibiting a grossly disharmonic, truly oceanic character (e.g., Falkland Islands, Wrangel Island) [ECM].
- 2495 LjwW ALDEN, Peter C., ESTES, Richard D., SCHLITTER, Duane, and MCBRIDE, Bunny. (1998). National Audubon Society field guide to African wildlife. Alfred A. Knopf, New York, 988 pp. **Annotation:** Hailed as "The most comprehensive field guide of Africa..." (from the front inside flap). Includes biogeography of Africa, reserves and national parks, exquisite color photographs, species accounts (with range maps for each species), and five appendices. Elephants are described on pp. 519-520, and depicted in color plate numbers: 7, 16, 47-48, 135-138 in various habitats [JSG].
- 2496 BiuW ALDERTON, David. (1990). Elephants: a history of persecution. Green Magazine, or Green Magazine for our Environment, 1(7):44-51. **Annotation:** "The modern world has meant mega-headaches for mega herbivores. Reviews the plight of the elephant" [E/ECM].
- 2497 LicW ALDHOUS, P. (1991). African rift in Kyoto. Nature, 354:175.
- 2498 LemW ALERS, M. P. T., BARNES, Richard F. W., and BLOM, Allard. (1990). An overview of the status of forest elephants in Central Africa. In Regional perspectives and situation regarding elephant conservation and the ivory trade. IUCN, 113-127.
- 2499 LweW ALERS, M. P. T., BLOM, A., SIKUBWABO KIYENGO, C., MASUNDA, T., and BARNES, R. F. W. (1992). Preliminary assessment of the status of the forest elephant in Zaire. African Journal of Ecology, 30(4):279-291. **Annotation:** First survey of Zaire's forest elephants. Elephants may number only 64,000, having declined by as much as two-thirds. Future lies in small number of well-protected national parks [ID-H/M&DR].
- 2500 LcyW ALEXANDER, F. (1992). The 'whaletail' elephants: a gallery of giants. Swara, 15(1):16-19. **Annotation:** Rationale behind 'whaletail' art display and auction to raise funds for elephant conservation [ID-H/M&DR].
- 2501 LrcW ALEXANDER, Paul. (1997). Elephant test off. Circus Report, No. 15(Vol. 25):3. **Annotation:** South Africa's KNP has dropped the experiment to keep elephants from becoming pregnant after a 7 month run. The hormones put female's sex drive in over-drive [E/ECM].
- 2502 BgzB ALEXANDER, Shana. (2000). The astonishing elephant. Random House, New York, xxii + 298 pp. **Annotation:** Reporter's experiences of

- about forty years incorporating anecdotes and most up-to-date information about elephants [JS].
- 2503 \*hvU ALIMOV, Alexander. (1999). First International Mammoth Conference, St. Petersburg, Russia, October 16-21, 1995: opening remarks. Deinsea, 6:1. **Annotation:** See Reference no. 3720 for details about "Deinsea 6" [ECM/JS].
- 2504 LicW ALLAWAY, James. (1989). The ivory trade in Cameroon. In The ivory trade and the future of the African elephant (coord. Steven Cobb), Vol. 2, Technical Reports, Section 2.3. The Ivory Trade Review Group, Oxford. **Annotation:** Trophy hunting has accounted for about 125 to 150 pairs of tusks per year in the last decade. Records are incomplete; it is apparent that the government earns a significant amount from hunting fees and ivory export, but illegal trade no doubt plays a more significant role in the movement of ivory from neighboring countries to outside buyers. Cameroon has an active carving industry and has internal and external markets for raw and worked ivory [ID-H/M&DR].
- 2505 LicW ALLAWAY, James. (1989). The ivory trade in Gabon. In The ivory trade and the future of the African elephant (coord. Steven Cobb), Vol. 2, Technical Reports, Section 2.4. The Ivory Trade Review Group, Oxford. **Annotation:** Majority of exported tusks, as well as most used in local carving, are illegal, thus few records are available. Gabon has a relatively large population of forest elephants, but increased poaching and range restriction due to agricultural and forestry land use are threats to its stability. Local carving industry is relatively new [ID-H/M&DR].
- 2506 LicW ALLAWAY, James. (1989). The ivory trade in Nigeria. In The ivory trade and the future of the African elephant (coord. Steven Cobb), Vol. 2, Technical Reports, Section 2.2. The Ivory Trade Review Group, Oxford. **Annotation:** Elephant population 3,000. Nigerian ivory trade is fueled with imported ivory, most of which is imported and exported illegally. Imported tusks originate mostly from Congo, Chad, Central African Republic, Cameroon and Zaire with Cameroon being the largest supplier. Probably fewer than 60 tusks of Nigerian origin enter the trade annually from animals shot in crop protection programs in Borno and Gongola, animals poached for meat and ivory in the vicinity of YGR, and minor numbers shot by trophy hunters [ID-H/M&DR].
- 2507 \*vuU ALLEN, H. (1991). Stegodonts and the dating of stone tool assemblages in island Southeast Asia. Asian Perspectives, 30(2):243-265.
- 2508 LiuW ALLEN, J. (1993). Animals at risk: elephant. Bok Books International, Windhoek, Namibia/Durban, South Africa, 26 un-numbered pages.
- 2509 BqzC ALLEN, Jennifer. (1995). How animal protection groups are working for elephants in captivity. Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 6 unnumbered pages.
- 2510 BqbC ALLEN, Karen and LEHNHARDT, John. (1992). Skeletons too big for the closet. The 13th International Elephant Workshop, Atlanta, 1992, pp. 79-85. Zoo Atlanta, Georgia, 151 pp.
- 2511 \*nvU ALLISON, N. (1991). Evidence of mastodont's last meal: bacteria still working after 11,000 years. Mammoth Trumpet, 6(4):1-6.
- 2512 BpbB ALLMAN, William F. (1988). Not just blowing their own horns. U.S. News & World Report, 104(18):68.
- 2513 LcuW ALLMAN, William F. (1989). Elephant man. U.S. News & World Report, 107(13):58-61. **Annotation:** Richard Leakey, scion of famed paleontology family, applies his knowledge of past to Kenya's future [E/JS].
- 2514 LicW ALLMAN, William F. and SCHROF, Joannie M. (1989). Endangered species- can they be saved? U.S. News & World Report, 107(13):52-58. **Annotation:** "Poachers' rifles, ranchers' cattle and farmers' plowshares are threatening thousands of precious animals and plants with extinction. But enlightened conservationists are using economics to build an ark" [E/ECM, p. 52].
- 2515 EtbC ALLSOPP, Nigel. (1997). Behavioral enrichment for Asian elephants at the Auckland Zoo. Journal of the Elephant Managers Association, 8(2):59-60. **Annotation:** 15 techniques to improve the quality of life for elephants [E/JS].
- 2516 LicW ALPERS, Edward A. (1992). The ivory trade in Africa: an historical overview. In Elephant: the animal and its ivory in African culture (ed. Doran H. Ross), pp. 349-363. Fowler Museum of Cultural History, University of California, Los Angeles, xxiv + 424 + ix pp.
- 2517 LabB ALTEN, M. (1994). Calls of the wild. Animals, 127(6):27-30. **Annotation:** Animals published by Massachusetts Society for the Prevention of Cruelty to Animals; Loxodonta africana, vocalization, behavior, techniques, SWRA [MPK].
- 2518 LgcW AMANOR, D. E. (1989). An elephantine task. Africa Events, November:24-33.
- 2519 LdbW AMMANN, Karl. (1992). Snares & Samburu elephants. Swara, 15(3):28. **Annotation:** Several elephants with trunk tips missing in Samburu/Buffalo Springs National Park, the result of having been caught in a snare. 12 elephants lost 3-6 inches off trunks; did not seem less healthy or less capable of handling food, but did more grazing than browsing so they could use their feet in the process [E/ECM].
- 2520 BbqC AMORY, Cleveland. (1997). Ranch of dreams: the heartwarming story of America's most unusual animal sanctuary. Viking, New York, 288 pp. **Annotation:** Author established Black Beauty Ranch in East Texas. Countless animals from elephants to prairie dogs that have been mistreated have been saved from death. Elephants on pages 237-73. On pp. 263-4 is a list of human deaths caused by captive elephants from 1990-96; on pages 265-6 is a list of circus elephant deaths from 1994-97 [E/ECM].
- 2521 \*vaU AMRINE, Heather M. and SPRINGER, Mark S. (1999). Maximum likelihood analysis of the tethythere hypothesis based on a multigene data set and a comparison of different models of sequence evolution. Journal of Mammalian Evolution, 6(2):161-176.
- 2522 \*vwU ANASTASAKIS, G. C. and DERMITZAKIS, M. (1988). Pleistocene evolution of the central Aegean. Cyclades region: paleogeographic reconstruction based on marine geological evidence as compared to Pleistocene mammalian findings. Abstracts of the International Conference "Early man in island environments", Oliena (Sardagna), 25 September-2 October 1988.
- 2523 \*vwU ANASTASAKIS, G. C. and DERMITZAKIS, M. (1990). Post middle Miocene paleogeographic evolution of the central Aegean Sea and detailed Quaternary reconstruction of the region; its possible influence on the distribution of the Quaternary mammals of the Cyclades Islands. Neues Jahrbuch für Geologie und Paläontologie Monatshefte, Stuttgart, 1990, 1-16.
- 2524 EcuW ANDAU, Mahedi and PAYNE, Junaidi. (1992). Managing elephant depredation in plantations in Sabah. Asian Elephant Specialist Group Newsletter, 8:19-24. **Annotation:** Methods of reducing elephant depredations include assessment of electrified fencing and a proposal for new form of physical barrier [SMW].
- 2525 EcgW ANDAU, Mahedi, DAWSON, Shanthini, and SALE, John B. (1997). A review of elephant numbers in Sabah. Gajah, 18:41-45. **Annotation:** In 1992 the Sabah government began a systematic census in the key areas of the species' range [ECM, p. 41].
- 2526 LbcW ANDERSEN, K. F. and ELTRINGHAM, S. Keith. (1997). Some preliminary observations on possible stress in the elephants of Mikumi



- National Park, Tanzania. African Journal of Ecology, 35(3):278-282.
- 2527 LcwW ANDERSON, D. and GROVE, R. (eds). (1987). Conservation in Africa: people, policies and practice. Cambridge University Press, Cambridge, 355 pp.
- 2528 BqgC ANDERSON, Debora. (1995). Protected contact herd management at the Houston Zoo. Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 6 unnumbered pages.
- 2529 EtqC ANDERSON, Debora and GIBSON, Karen. (1995). The training of juvenile Asian elephants in a protected contact management program. Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 6 unnumbered pages.
- 2530 EqcC ANDERSON, Debora and GIBSON, Karen. (1997). Management of Asian elephants at the Houston Zoological Gardens. Journal of the Elephant Managers Association, 8(2):30-32. **Annotation:** Protected contact program in elephants is still in developmental stages; only the future will tell how successful it will be [JS].
- 2531 LckW ANDERSON, Jeremy L. (1993). The introduction of elephant into medium-sized conservation areas. Pachyderm, 17:35-38. **Annotation:** Reintroduction of elephants should only be considered if one of the objectives of the reserve is to re-establish the wildlife community where the species formerly occurred. Secondary factors include the ecological role played by elephants and value of this species for visitors [ID-H/M&DR].
- 2532 LecW ANDERSON, Jeremy L. (reprinted 1994). The introduction of elephant into medium-sized conservation areas. In The African elephant as a game ranch animal, pp. 41-47. SAVA [South African Veterinary Association] Wildlife Group, Onderstepoort, South Africa, 192 pp. **Annotation:** Proceedings of a symposium on the African elephant as a game ranch animal, Kruger National Park, April 29-30, 1991. Translocation, techniques, captivity, habitat alteration, South Africa, HGR, UGR, PNP [MPK].
- 2533 LecW ANDERSON, Jeremy L. (1995). The introduction of elephant into medium-sized conservation areas. In Proceedings of a symposium on the African elephant as a game ranch animal, held at Berg-en-dal, Kruger National Park, 29-30 April 1991 (ed. J. van Heerden and B. L. Penzhorn), pp. 24-28. SAVA Wildlife Group, Onderstepoort.
- 2534 BgjB ANDERSON, Tracey. (1998). Review of "Elephants" by Joyce Poole, published 1997 by Voyageur Press, Stillwater (Minnesota), 72 pp. Animal Keepers' Forum, 25(9):365.
- 2535 EdqC ANDERSON, W. I. and SCOTT, D. W. (1991). Epidermoid cysts in the skin of an Asian elephant (*Elephas maximus*). Veterinary Dermatology, 2:171-172.
- 2536 \*evU ANDREWS, Peter J. (1999). Taphonomy of the Shuwaihat proboscidean: Emirate of Abu Dhabi, western region. In Fossil vertebrates of Arabia (ed. P. J. Whybrow and A. Hill), pp. 338-353. Yale University Press, New Haven and London.
- 2537 LcwW ANDREWS, Y. A. (1990). Review of "Elephants of Africa" by Bosman and Hall-Martin, published 1989 by Safari Press, Long Beach, California, 175 pp. New York Times Book Review, October:40.
- 2538 LicW ANONYMOUS. (1987). The ivory trade threatens Africa's elephants. African Wildlife Foundation, Nairobi, 10 pp.
- 2539 LiuW ANONYMOUS. (1987). Setting CITES to work. BBC Wildlife, 5(10):511.
- 2540 LnwW ANONYMOUS. (1988). The browning of Africa. New Scientist, 118(1618):42. **Annotation:** Seed dispersal. See quotes in Reference nos. 5718, Index; also: 4145, 4156. According to Williams, 1989 (Reference no. 5718), the author is "Simons, P." [MPK].
- 2541 LieW ANONYMOUS. (1988). Intervention du Burundi a l'intention de la session du groupe de travail sur l'elephant d'Afrique: 31 Octobre-3 Novembre 1988, African Elephant Working Group (IUCN), 3 pp. **Annotation:** It was hoped the intervention would result in better future compliance with CITES and allow for liquidation of ivory stock presently held in the country [ID-H/M&DR].
- 2542 LmcW ANONYMOUS. (1988). Society highlights: Tsavo animal count. Swara, 11(2):23.
- 2543 LcwW ANONYMOUS. (1988). What's going on in Gonarezhou? Zimbabwe Wildlife, 53:8-9, 10, 13.
- 2544 BicW ANONYMOUS. (1988/89). Alternatives to ivory. The Animal Welfare Institute Quarterly, 37(3/4):11.
- 2545 LucW ANONYMOUS. (1988/89). Kenya's elephants are in danger of vanishing into history. The Animal Welfare Institute Quarterly, 37(3/4):10-11.
- 2546 BicW ANONYMOUS. (1988/89). Piano technicians oppose ivory keys. The Animal Welfare Institute Quarterly, 37(3/4):11.
- 2547 LgjW ANONYMOUS. (1988/89). Review of "Elephant memories: thirteen years in the life of an elephant family" by Cynthia Moss, published 1988 by William Morrow, New York, 336 pp. The Animal Welfare Institute Quarterly, 37(3/4):12-13.
- 2548 EewW ANONYMOUS. (1989). Acid rain threatens China's rare wildlife. International Wildlife, 19(2):32. **Annotation:** Asian elephants' home damaged by acid rain [E/PFH].
- 2549 LiuW ANONYMOUS. (1989). The African elephant must be declared endangered. The Animal Welfare Institute Quarterly, 38(1):1, 8.
- 2550 LicW ANONYMOUS. (1989). The biggest ivory smugglers are highest government officials. The Animal Welfare Institute Quarterly, 38(1):8.
- 2551 LiuW ANONYMOUS. (1989). Botswana bust yields tusks, and more. TRAFFIC (U.S.A.), 9(1):4.
- 2552 LicW ANONYMOUS. (1989). Briefly: Ambassador's ivory. Oryx, 23:165.
- 2553 LciW ANONYMOUS. (1989). Briefly: Conservation potential in CAR [Central African Republic]. Oryx, 23:165.
- 2554 LciW ANONYMOUS. (1989). Briefly: Ivory Coast elephant plan. Oryx, 23:165.
- 2555 LcwW ANONYMOUS. (1989). Carrying the torch for elephants. Los Angeles Times, [19 July 89].
- 2556 LicW ANONYMOUS. (1989). CITES: the Ivory Question. IUCN Bulletin, 20(10-12):8. **Annotation:** 1989 meeting in Lausanne, Switzerland; elephants in particular [SLS].
- 2557 LocW ANONYMOUS. (1989). Conservation Hotline: Africa: gene profiles to uncover sources of poached ivory. Animal Kingdom, January/February 1989:8.
- 2558 LciW ANONYMOUS. (1989). The elephants' funeral pyre. The Animal Welfare Institute Quarterly, 38(2):3.
- 2559 LciW ANONYMOUS. (1989). Exposing the international ivory syndicates. Animal Welfare Institute Thirty-Eighth Annual Report, 4-6.
- 2560 LciW ANONYMOUS. (1989). How much ivory is in Burundi? TRAFFIC (U.S.A.), 9(1):4-5.
- 2561 LicW ANONYMOUS. (1989). Ivory quota update. Traffic Bulletin, 11(1):2.
- 2562 LciW ANONYMOUS. (1989). Ivory trade update: CITES African elephant working group meets. TRAFFIC (U.S.A.), 9(1):3-4.

- 2563 LciW ANONYMOUS. (1989). More changes to 1988 ivory export quotas. TRAFFIC (U.S.A.), 9(1):5.
- 2564 LciW ANONYMOUS. (1989). A program to save the African elephant. World Wildlife Fund Letter, 1989, no. 2:1-12. **Annotation:** Global action plan has support of African governments, will guide world conservation efforts [E/ECM].
- 2565 LciW ANONYMOUS. (1989). Putting an end to ivory sales. The Animal Welfare Institute Quarterly, 38(1):20.
- 2566 LciW ANONYMOUS. (1989). Report from Gabon: WWF protects elephant stronghold. Focus, 11(6):1, 6.
- 2567 ByzB ANONYMOUS. (1989). Rostropovich: the concert for elephants. The Animal Welfare Institute Quarterly, 38(2):5.
- 2568 BicW ANONYMOUS. (1989). Save the elephants: now or never. Better Homes and Gardens, 67(6):pages not provided.
- 2569 BicB ANONYMOUS. (1989). Saving the elephant: nature's great masterpiece. The Economist, 312(7609):15-17. **Annotation:** Probably also published as: 1989. "How long has the elephant got?" Weekend Australian, 29-30 Jul 89 [MPK]. Review of proposed ivory ban suggesting population loss will be higher once ban goes into effect because price of ivory will be higher and illegal trade will increase [ID-H/M&DR].
- 2570 LixW ANONYMOUS. (1989). Swazis ban ivory imports, denounce Zambian official. The Animal Welfare Institute Quarterly, 38(2):4.
- 2571 LicW ANONYMOUS. (1989). U.S. bans ivory imports from Somalia. Focus, 11(3):1, 7.
- 2572 LicW ANONYMOUS. (1989). U.S., the E.C., and Japan halt ivory imports. WWF Focus, 11(4):1-2. **Annotation:** June 1, 1989, World Wildlife Fund and Wildlife Conservation International ask ivory importing countries to ban imports [E/SLS].
- 2573 LicW ANONYMOUS. (1989). You can help stop ivory profiteers. The Animal Welfare Institute Quarterly, 38(2):5.
- 2574 BicB ANONYMOUS. (1989/90). Elephants win at CITES. The Animal Welfare Institute Quarterly, 38(3&4):1, 15.
- 2575 LicW ANONYMOUS. (1989/90). Slaughter in southern Africa. The Animal Welfare Institute Quarterly, 38(3&4):1, 14-15.
- 2576 EcwW ANONYMOUS. (1990). Ban on Burmese elephants. EIA News, 3:5.
- 2577 BciB ANONYMOUS. (1990). Briefly: UK takes reservation on elephant. Oryx, 24(2):63.
- 2578 LiuW ANONYMOUS. (1990). Can ivory be fingerprinted? Wildlife Conservation, 93(3):27.
- 2579 LieW ANONYMOUS. (1990). Dossier "elephant d'Afrique": etude regionales. Nature et Faune, 6(4):7-23. **Annotation:** English translation (pp. 40-48) refers to maps accompanying French text. Extracted from 'Ressources et Espaces Naturels' no 5, 1990. Donors conference on protection of African elephant and its habitat; Paris, April 1990 [ID-H/M&DR].
- 2580 LczB ANONYMOUS. (1990). Fort friend. BBC Wildlife, 8(7):484. **Annotation:** Amid the civil war in Liberia, international animal welfare charity opened a wildlife orphanage and rehabilitation center 15 km east of Monrovia. Photograph shows "Dr Clark and evacuated elephant. They zig-zagged from cloud to cloud" [JS].
- 2581 \*gvU ANONYMOUS. (1990). The fossil elephants of Manitoba. Canadian Cataloguing in Publication Data, Winnipeg, Manitoba, 1-24.
- 2582 BiuW ANONYMOUS. (1990). Horizons: missing ivory. Swara, 13(5):19. **Annotation:** Hong Kong ivory without CITES documentation [PFH/JMH].
- 2583 BicW ANONYMOUS. (1990). Ivory ban in effect. Hasti Newsletter, Number 12:1. Editorial Comments.
- 2584 LicW ANONYMOUS. (1990). Ivory sales boom in southern Africa. Jewelers' Circular-Keystone, September:52.
- 2585 BicW ANONYMOUS. (1990). The ivory trade. EIA News, 3:4-5.
- 2586 BicW ANONYMOUS. (1990). Ivory trade continues in Hong Kong. Focus, 12(2):1-2.
- 2587 LicW ANONYMOUS. (1990). Life after CITES: the African elephant has not yet been saved. WCI Members' Bulletin, January/February:W1-W2.
- 2588 +icB ANONYMOUS. (1990). Mammoth threat to elephants. Green Magazine, April:6-7. **Annotation:** Siberian mammoth ivory poses threat to future of African elephants. Elephant ivory could be exported with mammoth ivory, eluding restrictions [E/ECM].
- 2589 BicW ANONYMOUS. (1990). More elephants are wearing ivory. Jewelers' Circular-Keystone, September:38-39. **Annotation:** World ivory trade collapsing as consumers shun ivory products; Far Eastern buyers join nearly worldwide ban on merchandise made from elephant tusks [E/ECM].
- 2590 LvmW ANONYMOUS. (1990). New evidence supports existence of pygmy elephant. The ISC [International Society of Cryptozoology] Newsletter, 9(1):1-6.
- 2591 EcbW ANONYMOUS. (1990). Proceedings of the Symposium on ecology, behavior and management of elephants in Kerala, 23-24 February, 1990. Special publication no. 1. Thiruvananthapuram, Kerala: Chief Conservator of Forests, Kerala.
- 2592 LgiW ANONYMOUS. (1990). Richard Leakey talks to "Swara." Swara, 13(2):15-18. **Annotation:** As new Director of the new Kenya Wildlife Service, Leakey spoke of the plan he had for managing Kenya's wildlife [SLS].
- 2593 LuiW ANONYMOUS. (1990). Seizures and prosecutions: Namibia. Traffic Bulletin, 11(2/3):31.
- 2594 LcyW ANONYMOUS. (1990). Society highlights: monument to the ivory burning. Swara, 13(2):21-22. **Annotation:** In January 1990 a monument to commemorate burning of 12 tons of ivory on July 18, 1989 was erected in NNP [SLS].
- 2595 LicW ANONYMOUS. (1990). Traffic alert: buyer beware! Focus, 12(6):5.
- 2596 LucW ANONYMOUS. (1990). Zambia forms new anti-poaching unit. Focus, 12(4):1, 5.
- 2597 LkcW ANONYMOUS. (1990/91). Zimbabwe & Botswana plan mass elephant kill. The Animal Welfare Institute Quarterly, 39(4):4.
- 2598 LwcW ANONYMOUS. (1991). AERSG splits up. IUCN Bulletin, 22(4):6. **Annotation:** SSC African Elephant and Rhino Specialist Group (AERSG) will now be two groups: one for African elephants, one for African rhinos [ECM].
- 2599 LcwW ANONYMOUS. (1991). Botswana—the elephant problem. African Connection, 6(1):4-5.
- 2600 LciW ANONYMOUS. (1991). CITES Appendix I for elephants. The Animal Welfare Institute Quarterly, 40(1):2-3.
- 2601 \*vaU ANONYMOUS. (1991). Construction workers dig up mastodon. The Times Herald Record, February 7, 1991:31.
- 2602 LigW ANONYMOUS. (1991). Elephant day 1991. Swara, 14(4):24. **Annotation:** July 18 is Kenya's elephant day, coinciding with anniversary of ivory burning in 1989 [PFH/JMH].
- 2603 LcwW ANONYMOUS. (1991). "Endangered" status sought for all African elephants. The Animal Welfare Institute Quarterly, 40(2):1-3. **Annotation:** Excerpted from Ronald Nowak's public comments on ruling proposed by US Fish and Wildlife Service on classification of African elephant under consideration in 1991. "...by keeping the elephant improperly classified, unnecessarily, for the purpose of

- facilitating sport hunting, the Fish and Wildlife Service would be making a mockery of the Endangered Species Act" [E/SLS].
- 2604 \*ivU ANONYMOUS. (1991). Ice Age tusk [from Augusta, Maine]. Circus Report (January 7, 1991), No. 1:10.
- 2605 BicW ANONYMOUS. (1991). Ivory market collapse. Oryx, 25(1):5. **Annotation:** 6-month reservation against CITES ivory trade ban filed by UK on behalf of Hong Kong last January expired with virtually all ivory stockpile still in Hong Kong warehouses [E/ECM].
- 2606 LecW ANONYMOUS. (1991). The ivory paradox. The Economist, 318(7696):18.
- 2607 BgjW ANONYMOUS. (1991). Keep elephants out of conflict areas — corridors not the road to survival. The Trumpet, December 1991: pages not provided.
- 2608 LucW ANONYMOUS. (1991). New aid for war against poaching. The Animal Welfare Institute Quarterly, 40(1):7.
- 2609 BygB ANONYMOUS. (1991). The protection of the African elephant: the Rostropovich recording of Saint-Saëns elephant music. Animal Welfare Institute, Thirty-Ninth Annual Report. 1 July 1989 to 30 June 1990, pp. 2-3.
- 2610 LciW ANONYMOUS. (1991). US refuses to list elephants in southern Africa as endangered. The Animal Welfare Institute Quarterly, 40(1):11.
- 2611 LicW ANONYMOUS. (1992). 8th meeting of the conference of the Parties to CITES, Kyoto, Japan, 2-13 March 1992. Oryx, 26:126-127.
- 2612 LcwW ANONYMOUS. (1992). Africa's elephants given a second chance. Wildlife News, 27(1):1, 7.
- 2613 BcgB ANONYMOUS. (1992). Africa's forgotten elephants. Trunkline, issue 7:6-7. **Annotation:** ELEFRIENDS has been funding projects in west Africa since 1990, in association with EleDrive, notably in Nigeria and Ghana [E/JLP].
- 2614 EcgB ANONYMOUS. (1992). Asian elephant group. IUCN Bulletin, 23(3):10.
- 2615 LbcW ANONYMOUS. (1992). Books and films: elephants calling. The Animal Welfare Institute Quarterly, 42(1):21.
- 2616 BqzC ANONYMOUS. (1992). Circuses banned. Circus Report, No. 35:6. **Annotation:** Australia's 13 traditional circuses banned in Canberra. Circus owners brought show trucks and elephants to steps of Canberra ACT legislature in Australia to protest bill which would ban use of exotic circuses [E/ECM].
- 2617 BmcW ANONYMOUS. (1992). Elephant computer. Trunkline, Issue 6:5. **Annotation:** Iain Douglas-Hamilton compiling population analysis of elephants in Africa, working on population maps to be presented at CITES conference in Japan.
- 2618 LrcC ANONYMOUS. (1992). Elephantine contraception. Lancet, 340(8819):583-584. **Annotation:** *Loxodonta africana*, reproduction. See Reference nos. 2711, 2713, 2963, 2995, 4131, 4777, 4786, 5098, 5527 [ECM].
- 2619 EcbW ANONYMOUS. (1992). An elephantine problem. Daily News (Sri Lanka), 30th November, p. 13.
- 2620 LciW ANONYMOUS. (1992). Ivory trade advocates lose as Zambia calls for Appendix I for African elephants. The Animal Welfare Institute Quarterly, 41(1):1-2.
- 2621 LcwW ANONYMOUS. (1992). Jabs from the air protect desert elephants. New Scientist, 136(1842):5.
- 2622 BicW ANONYMOUS. (1992). Japan wants ivory. The Animal Welfare Institute Quarterly, 41(3):3.
- 2623 LixW ANONYMOUS. (1992). Political concerns thwart discussion at CITES meeting. Focus, 14(3):1, 6.
- 2624 EcwW ANONYMOUS. (1992). Proceedings of Asian Elephant Specialist Group Meeting, Bogor, Indonesia, 20-22 May, 1992. Compiled by Asian Elephant Conservation Centre of IUCN/SSC Asian Elephant Specialist Group, Bangalore, India.
- 2625 LicW ANONYMOUS. (1992). Smuggler of carved ivory convicted. The Animal Welfare Institute Quarterly, 41(4):15.
- 2626 LmkW ANONYMOUS. (1992). Southern African drought. Trunkline, Issue 7:3. **Annotation:** Plans for culling and transporting nearly half the elephants in GNP, in Fall, 1992, because of devastating drought in the area [SLS].
- 2627 LmwW ANONYMOUS. (1992). TWCM survey results: Serengeti buffalo & elephant. Conservation Monitoring News, no. 5, August:1. **Annotation:** Count of elephant and buffalo carried out in SNP ecosystem, May, 1992 [E/ECM].
- 2628 LcwW ANONYMOUS. (1993). African elephants: appointment at the end of the world. Wildlife Conservation, 96(2):12-76.
- 2629 EmaB ANONYMOUS. (1993). The Asian elephant. Wildlife Times, 2(1):7.
- 2630 BjpB ANONYMOUS. (1993). Biting flies flee elephants' swatters. Science News, 144(5):70. **Annotation:** Elephants make their own fly swatters [E/ECM].
- 2631 ByzB ANONYMOUS. (1993). Circus stamps. Circus Report, No. 15:14.
- 2632 LgjW ANONYMOUS. (1993). Review of "Echo of the elephants" by Cynthia J. Moss and Martyn Colbeck, published 1992 by William Morrow and Company, Inc., New York, 192 pp. Also published by BBC Books, London. The Animal Welfare Institute Quarterly, 42(1):21.
- 2633 LdaW ANONYMOUS. (1993). Trunk disease is killing some Kariba elephants. Zimbabwe Wildlife, 70:7.
- 2634 EecW ANONYMOUS. (1993). Elephant problems in Laos. Oryx, 27(3):139. **Annotation:** Between 1990 and 1992, poachers killed about 50 elephants [E/ECM].
- 2635 BciB ANONYMOUS. (1993). Endangered species bills announced. The Animal Welfare Quarterly, 42(2):14. **Annotation:** On May 6, 1993, US Senate and House leaders of the Endangered Species Act reauthorization spoke on endangered species and controversies.
- 2636 BgjB ANONYMOUS. (1993). Everything you should know about elephants. The Performing Animal Welfare Society, Galt (California), 32 pp.
- 2637 LcwW ANONYMOUS. (1993). Fighting for life in Gonarezhou. Zimbabwe Wildlife, 70:14-15.
- 2638 EcjW ANONYMOUS. (1993). Insurance for villagers affected by elephants. Oryx, 27(3):139. **Annotation:** Department of Wildlife Conservation in Sri Lanka to pay for insurance coverage for families at risk from elephant depredations [E/ECM].
- 2639 EcjW ANONYMOUS. (1993). Insuring against elephant depredations in Sri Lanka. Gajah, 10:33. (from The Daily News 27 August 1992. Sri Lanka.). **Annotation:** Insurance coverage for families at risk from elephant depredations [E/SLS].
- 2640 LicW ANONYMOUS. (1993). Ivory cartel agrees on method to mark tusks: renewed trade is ultimate goal. Elephant Managers Association Newsletter, 4(1):30. **Annotation:** Members of southern African ivory trading cartel, SACIM, have concluded marking legal ivory with hologram, bar code and serial number will distinguish it from illegal ivory and make resumption of commercial trade possible [E/ECM].
- 2641 LmiW ANONYMOUS. (1993). Mandlevé at Sabi Sabi. Africa - Environment & Wildlife, 1(1):13. **Annotation:** Age and range of one of well known large tusked elephants in KNP, "Mandlevé", which died of natural causes in 1993. Tusks weighed 73.5 and 69.0 kg [ID-H/M&DR]. See Reference no. 3671.

- 2642 \*lvU ANONYMOUS. (1993). "Mini-mammoths" survived longer. National Geographic Magazine, 184(4):first unnumbered page under "Geographica". **Annotation:** Dwarf proboscideans, islands, mortality, extinction, food, size, Wrangel Island [SLS].
- 2643 \*hvU ANONYMOUS. (1993). A new find. Circus Report, No. 13:20. **Annotation:** Russian scientists have discovered "dwarf" mammoths lived on Wrangel Island [JLP].
- 2644 EcwW ANONYMOUS. (1993). Project elephant: Gajatme. Ministry of Environment & forest, Government of India. February 1993, 46 pp.
- 2645 LcwW ANONYMOUS. (1993). Regional report summaries. Pachyderm, 16:41-43.
- 2646 EcwW ANONYMOUS. (1993). Saving the Asian elephant. IUCN Bulletin, 24(2):29.
- 2647 \*hvU ANONYMOUS. (1993). Scientists are trumpeting mini-mammoth discovery. The Oakland Press, March 25:A-1. **Annotation:** Dwarf mammoths survived some 6,000 years after thought to be extinct, roaming an island near Alaska [E/ECM].
- 2648 LdpW ANONYMOUS. (1993). Trunk paralysis update. Care for the Wild News, 6:13. **Annotation:** Initial notice of paralysis of trunk in elephants in two areas of northern Zimbabwe (MaNP and Lake Kariba), work undertaken to analyze soil and vegetation for lack of trace minerals [ID-H/M&DR].
- 2649 EicW ANONYMOUS. (1993). Tusks seized in Thailand. Oryx, 27(3):139.
- 2650 \*awU ANONYMOUS. (1993). Visiting scientist donates fossil mammal remains from the North Sea. The Mammoth Site of Hot Springs, South Dakota, Inc. Newsletter, July, 1993, pp. 4-5. **Annotation:** Scientist from Hoofddorp, Netherlands donated rare North Sea fossils to the site for display, including woolly mammoth molars [SLS].
- 2651 LcwW ANONYMOUS. (1993). Working group discussion one: elephant-habitat working group (African Elephant Specialist Group meeting, 17-22 November 1992, Victoria Falls, Zimbabwe). Pachyderm, 16:21-23.
- 2652 BqdC ANONYMOUS. (1993). Zoos may be driving the animals crazy. The Detroit News, April 11:4A. **Annotation:** Born Free Foundation, a British charity monitoring captive animals, didn't do scientific study or calculate number affected, but researchers said examples represent global problem. The same species displayed same abnormal behavior in zoos worldwide [E/ECM].
- 2653 LcwW ANONYMOUS. (1994). African elephants: a step towards their future. Oryx, 28(2):77-80. **Annotation:** Summarized from Zimbabwe's great elephant debate, supplement to Zimbabwe Wildlife, October-December 1993. Against ivory trade ban effective January 1990 were representatives from Zimbabwe and South Africa arguing for culling and revenue from sale of meat, skins and ivory [ID-H/M&DR].
- 2654 LciW ANONYMOUS. (1994). African elephants — the success of the CITES Appendix I ban. The Animal Welfare Institute Quarterly, 43(3):6-7.
- 2655 \*avU ANONYMOUS. (1994). Channel Islands National Park. The Mammoth Site of Hot Springs, South Dakota, Inc. Newsletter, September, 1994:2. **Annotation:** Dwarf mammoth skeleton found on Santa Rosa Island off California coast [E/ERD].
- 2656 LtzC ANONYMOUS. (1994). The domestication of the African elephant in the early 20th century: a compilation of agricultural reports originally published for the Minister of Colonies of the Belgian Congo. Marine World Foundation, Vallejo, California, 44 pp. **Annotation:** Insight into elephant domestication program centered at Api in Belgium Congo during early part of century. Elephant training program at Marine World Africa in California [ID-H/M&DR]. See Reference nos. 1675, 3253, 3539, 3800, 3801, 3951, 5209, 5631, 5632 [ECM].
- 2657 LcwW ANONYMOUS. (1994). Elephant management in Zimbabwe — turning a liability into an asset, Oryx, 28(3):145-146.
- 2658 LejW ANONYMOUS. (1994). Elephants kill rhinos in park. Rhino & Elephant Foundation Newsletter [=REF News], 12:6. **Annotation:** Reprinted from Keeping Track. Interspecific-relations, translocation, social-relations, musth, PNP [MPK].
- 2659 LkcW ANONYMOUS. (1994). Elephants: the way forward. BBC Wildlife, 12(8):63. **Annotation:** "Care for the Wild is saving elephants from cruel slaughter. In southern Africa they are being culled - a barbaric form of population control" [from advertisement for Care for the Wild; E/ECM].
- 2660 LtqC ANONYMOUS. (1994). Randall Jay Moore. Africa - Environment & Wildlife, 2(3):11. **Annotation:** *Loxodonta africana*, captivity, working, elephant riding safaris in Okavango, Botswana [MPK].
- 2661 LweW ANONYMOUS. (1994). Satellite collaring of elephants. The Rhino & Elephant Journal, 9:34-35. **Annotation:** Many of 5,000 elephants inhabiting Caprivi Region, Namibia, believed to stay from May to December. Part of population known to move into Angola, Zambia, and Botswana during January to April rainy season [ID-H/M&DR].
- 2662 \*avU ANONYMOUS. (1994). Skeleton of rare mammoth found virtually intact. The Chronicle of Higher Education, 41(3): no page number.
- 2663 LcwW ANONYMOUS. (1994). Tracking elephant by satellite. Southern African Economist, 7:3.
- 2664 LjcW ANONYMOUS. (1995). African crop study finds an unlikely culprit. Focus, 17(3):3. **Annotation:** World Wildlife Fund project studying crop damage caused by elephants in Gabon turned up unlikely culprit: the cane rat [E/ECM].
- 2665 LckW ANONYMOUS. (1995). African Elephant Specialist Group meeting, May 27th to June 1st, 1994: working group recommendations. Pachyderm, 19:64-72.
- 2666 \*vaU ANONYMOUS. (1995). Channel Islands National Park: pygmy mammoth. The Mammoth Site of Hot Springs, South Dakota, Inc. Newsletter, October, 1995:unnumbered page. **Annotation:** Dwarf mammoth skeleton found on Santa Rosa Island off California coast.
- 2667 EucW ANONYMOUS. (1995). Chinese elephant poachers arrested. Oryx, 29(4):234. Source: Swara, January-February 1995:12. **Annotation:** In China, 51 people were arrested for killing 16 elephants, injuring four others [SLS].
- 2668 BqzC ANONYMOUS. (1995). Elephant alert! Time, 145(16):19. **Annotation:** When a dozen circus elephants trundled around the U.S. Capitol Building, one nervous legislator sounded the alarm [E/ECM].
- 2669 LciW ANONYMOUS. (1995). Elephants - four years after the ivory trade ban. Oryx, 29(2):74-76. **Annotation:** Excerpt from Dublin Holly T., MILLIKEN, Tom, and BARNES, Richard F. W., 1995 report "Four years after the CITES ban: illegal killing of elephants, ivory trade and stockpile". TRAFFIC International, Cambridge, UK. Review of situation four years after ivory ban focused on Cameroon, Gabon, Ivory Coast, Kenya, Malawi, Nigeria, Tanzania, Zambia and Zimbabwe. Law enforcement budgets have decreased and poaching, though lower than pre-ban levels, has increased during last two years. Ivory trade is continuing and new Asian markets may be opening. Majority of range states seem to be experiencing increased human-elephant conflict [ID-H/M&DR].
- 2670 LuiW ANONYMOUS. (1995). Famed bulls dead or missing. National Geographic, 188(1):140. **Annotation:** *Loxodonta africana*, hunting, poach-

- ing in ANP, and Tanzania. See Reference nos. 2951, 5745 [ECM].
- 2671 BciW ANONYMOUS. (1995). House protects funding for elephants, rhinos, tigers. *Focus*, 17(5):1. **Annotation:** "Programs to protect the elephant, rhino, and tiger got support in the House of Representatives from a seemingly unlikely source on July 13 when Speaker of the House Newt Gingrich defended Interior Department's \$600,000 appropriation for the African Elephant Conservation Fund and the \$200,000 appropriation for the Rhinoceros and Tiger Conservation Fund" [E/ECM].
- 2672 LuiW ANONYMOUS. (1995). Hunting moratorium set. *African Wildlife News*, 30(4):1. **Annotation:** *Loxodonta africana*, conservation, ANP, Longido, Tanzania. See Reference nos. 2951, 5745 [MPK].
- 2673 LbcW ANONYMOUS. (1995). Kruger character. *On Track* (South Africa), May/June 1995:60. **Annotation:** *Loxodonta africana*, behavior, attacking-human, South Africa [ECM].
- 2674 BioB ANONYMOUS. (1995). Looking backwards: ivory reveals vital clues. *BBC Wildlife*, 13(5):10. **Annotation:** Attempt to 'fingerprint' geochemically elephant ivory has revealed promising way to discover changing patterns of elephant behavior [E/ECM].
- 2675 \*evU ANONYMOUS. (1995). Rare dwarf mammoth unearthed. *National Geographic*, 187(1):xii. **Annotation:** *Mammuthus exilis*, islands, mortality, swimming, evolution, size, food in California Channel Islands, USA, USSR, and Wrangel Island in Arctic Ocean [MPK].
- 2676 LicW ANONYMOUS. (1995). Species of special concern: elephants. *Focus*, 17(6):5. **Annotation:** Study funded by World Wildlife Fund and U.S. Fish and Wildlife Service to evaluate ivory trade ban effectiveness indicates decline of many African wildlife departments [E/ECM].
- 2677 \*uvU ANONYMOUS. (1995). Streit ums Mammutsterben. *Abenteuer Natur*, 2:138. **Annotation:** *Mammuthus* extinction, hunting, human relations [ECM].
- 2678 LucW ANONYMOUS. (1995). A strong anti-poaching stance in Kenya. *The Animal Welfare Institute Quarterly*, 44(3):14. **Annotation:** Kenya burned its entire ivory stockpile to reaffirm its commitment to save elephants. Comments excerpted from a statement by the Honorable Noah Katana Ngula, Minister for Tourism and Wildlife [E/ECM].
- 2679 LucW ANONYMOUS. (1995). Tanzania bans elephant hunt. *Oryx*, 29(4):231-232. Source: *African Wildlife Update*, July-August 1995:4. **Annotation:** Tanzania has placed temporary ban on sport hunting of elephants along border with Kenya and in Longido Game Controlled Area where controversial killings of three old bulls took place in 1994 [E/ECM].
- 2680 LbeW ANONYMOUS. (1995). What killed the rhinos? Elephants suspected. *National Geographic*, 187(5):144. **Annotation:** *Loxodonta africana*, white rhino, interspecific-relations, behavior, translocation, musth, in KNP. See Reference no. 5206 [MPK].
- 2681 LuiW ANONYMOUS. (1995). Wildlife watch: bull elephants killed. *African Wildlife News*, 30(2):1, 3. **Annotation:** Three bulls from ANP that wandered into Tanzania shot by legal hunters; cf. Reference nos. 2951, 5745 [MPK].
- 2682 LcmW ANONYMOUS. (1996). The African elephant database. *The Rhino & Elephant Journal*, 10(9):7-9. **Annotation:** Summary article on hard copy of computerized geographical information system from collaborative effort between IUCN/SSC AfESG and United Nations Environment Programme [E/SLS].
- 2683 EdaC ANONYMOUS. (1996). Dental surgery. *Circus Report*, No. 31:2. **Annotation:** British and Ukrainian veterinarians perform dental surgery on Europe's largest elephant, "Boy", at Kiev Zoo. Boy, 26 years old, had broken tusk which became infected [E/ECM].
- 2684 BiuW ANONYMOUS. (1996). Domestic ivory sale control in Japan. *Oryx*, 30(1):15. Source: *TRAFFIC Bulletin*, 15(3):104. **Annotation:** 28 June 1995, Japan amended its legislation in attempt to control domestic trade in ivory and other products of CITES Appendix I listed species that are clearly recognizable as such [SLS].
- 2685 BqtB ANONYMOUS. (1996). *The elephant, as he exists in a wild state, and as he has been made subservient, in peace and war, to the purposes of man*. Harper & Brothers, Publishers, New York, 300 pp. Reprint of 1839 book published by the British Society for the diffusion of Useful Knowledge. **Annotation:** Primarily a compendium of matters elephantine from physiology and warfare to training methods and religion, draws from wide range of historical sources from Greek and Roman classics to contemporary writings [E/ECM].
- 2686 LboW ANONYMOUS. (1996). Elephant deterrent tested. *Oryx*, 30(1):12. Source: *Pachyderm*, 20, 1995:55-64. **Annotation:** A capsicum-based aerosol combined with aversive conditioning of problem elephants could be cost-effective supplement or alternative to electric fencing and shooting of elephants [ECM].
- 2687 LmcW ANONYMOUS. (1996). Elephants up in the Selous. *Oryx*, 30(1):12. Source: *African Wildlife Update*, September/October 1995:8. **Annotation:** For the first time since aerial surveying started in SGR in 1976, the elephant population is no longer declining [E/ECM].
- 2688 EcuW ANONYMOUS. (1996). FFI in Vietnam. *Fauna & Flora News*, Issue no. 5:1. **Annotation:** The FFI has started two major projects in Vietnam, one tackling critical status of country's remaining Asian elephants, the other developing conservation awareness strategy for villages around Cuc Phuong National Park. Thirty years war in Vietnam reduced the elephant population substantially but greater losses have occurred since, due to large-scale poaching and habitat destruction. Today 250-400 elephants remain, less than 25 percent of estimated total in late 1970s [E/ECM].
- 2689 LecW ANONYMOUS. (1996). Good and bad at game. *Economist*, 6 July 96:69-70. **Annotation:** *Loxodonta africana*, KNP [MPK].
- 2690 EicW ANONYMOUS. (1996). India's biggest ivory bust. *Oryx*, 30(2):97. Source: *BBC Wildlife*, February 1996:57. **Annotation:** Wildlife authorities in Varanasi, Uttar Pradesh, have seized 35 kg ivory, probably India's largest ever confiscation [SLS].
- 2691 LckW ANONYMOUS. (1996). Kruger elephants at heart of conservation quandary. *African Wildlife News*, 31(5):3.
- 2692 LiuW ANONYMOUS. (1996). Leakey lashes out at "grossly inaccurate" report on ivory poaching. *The Animal Welfare Institute Quarterly*, 44(3):13. **Annotation:** Controversial report [by Holly Dublin, Tom Milliken, Richard Barnes; Reference nos. 3350, 3351] on elephant poaching published by World Conservation Union sparked fractious debate whether 1989 CITES ban on cross-border ivory trade is effective [E/ECM].
- 2693 LcjW ANONYMOUS. (1996). Loss of a population of elephants confirmed in Malawi. *Oryx*, 30(2):88-90. **Annotation:** Excerpt from Sherry's 1995 report "The demise of the elephants of the Middle Shire Valley, Southern Malawi" to Fauna & Flora International Cambridge, UK. Commissioned subsequent to 1994 report noting elephants no longer present in MGR, study suggests population loss largely related to wars in nearby countries, refugee populations, general civil insecurity in Malawi. Remaining elephant populations occupy discontinuous range isolated by agriculture development and human settlement [ID-H/M&DR].

- 2694 LbcW ANONYMOUS. (1996). Migration study may aid elephant conservation. *Focus*, 18(4):3. **Annotation:** Elephant populations seeking diminishing food sources stray into farmland and inhabited areas, becoming unwelcome throughout many African (and Asian) countries because of danger posed to crops and human life. WWF is participating in study of elephant migration patterns that may help reduce man-elephant conflicts in Cameroon and Chad [E/ECM].
- 2695 LcwW ANONYMOUS. (1996). New elephant sanctuary. *Oryx*, 30(1):12. Source: *African Wildlife News*, 30(5):1. **Annotation:** Mwaluganje Elephant Sanctuary, at the foot of Kenya's Shimba hills open to visitors [E/ECM].
- 2696 EcwW ANONYMOUS. (1996). Of elephants and satellites. *U.S. News & World Report*, 121(16):77-77. **Annotation:** "Abang Ramadan", a 3 1/2 ton rogue Malaysian elephant devastating crops saved by park rangers who took him to remote location and attached radio collar to neck that allows movements to be tracked by satellite and plotted on Web [E/ECM].
- 2697 LcwW ANONYMOUS. (1996). Okavango: Africa's last Eden. *Rotunda*, 24(7):1, 4. **Annotation:** Describes traveling exhibit which features photos from Frans Lanting's book ("Okavango: Africa's last Eden") published in 1993 [E/ECM].
- 2698 BboB ANONYMOUS. (1996). One scent woos elephants and insects. *Science News*, 149(10):159. **Annotation:** Some female insects and elephants release same airborne compound to attract attention of males [E/ECM].
- 2699 LucW ANONYMOUS. (1996). Poaching escalates in Garamba National Park, Zaire. *REF News* (Rhino & Elephant Foundation), 14:6. **Annotation:** Threat of poaching in GaNP - a 4,864 sq-km UNESCO World Heritage Site, home to last known northern white rhinos in the wild, 11,000 elephants, only Zairian population of giraffes - increased significantly following capture of Maridi by Sudan People's Liberation Army in 1991, and subsequent influx of refugees to Zaire [E/ECM].
- 2700 LgwW ANONYMOUS. (1996). Profile: Anthony Hall-Martin. *The Rhino & Elephant Journal*, 10:2, 4. **Annotation:** *Loxodonta africana*, KNP, AENP [MPK].
- 2701 LauW ANONYMOUS. (1996). Species and ecosystems: Amboseli Elephant Research Project. *African Wildlife News*, 31(1):1, 3. **Annotation:** Sexual-dimorphism, population, hunting, ANP, and Tanzania [MPK].
- 2702 LuiW ANONYMOUS. (1996). Valuable breeding bull killed in Tanzania. *African Wildlife News*, 31(3):1. **Annotation:** Poaching, hunting, ANP [MPK].
- 2703 LmbW ANONYMOUS. (1996). Watering hole study charts social life of forest elephants. *International Wildlife*, 26(2):9. **Annotation:** Observing elephant groups from platform at edge of clearing yield important information on elephant social life [E/ECM].
- 2704 LucW ANONYMOUS. (1996). Wildlife watch: two bull elephants killed. *African Wildlife News*, 31(5):1. **Annotation:** *Loxodonta africana*, conservation, poaching, ANP, and Tanzania [MPK].
- 2705 LcwW ANONYMOUS. (1997). Africa and Madagascar. *Focus*, 19(1):4. **Annotation:** Since 1993, WWF project LIFE (Living in a Finite Environment), funded by U.S. Agency for International Development, worked with Ministry of Environment and tourism to establish special conservancies allowing rural people to manage wildlife and natural resources [E/ECM].
- 2706 EcwW ANONYMOUS. (1997). Asian elephant project update. *Fauna & Flora News*, 7:7. **Annotation:** Fauna & Flora International program: Vietnam's first Elephant Protection Units (EPU's) began in October 1996 in southern province of Dak lak [ECM].
- 2707 BqzC ANONYMOUS. (1997). Ban elephants? *Circus Report*, No. 15(Vol. 25):6. **Annotation:** California Representative Sam Farr has joined forces with actress, Kim Basinger, to prohibit use of elephants in traveling shows [E/ECM].
- 2708 ErqC ANONYMOUS. (1997). Birth announcement: third successful elephant birth at Burnet Park Zoo. *Journal of the Elephant Managers Association*, 8(1):42-43. **Annotation:** "Targa", a 14-year-old Asian cow, gave birth to her first offspring, "Mali", a 293-pound female is sixth calf of Indy, a 24-year-old bull [E/ECM].
- 2709 LuiW ANONYMOUS. (1997). Bushmeat threat for elephants. *Oryx*, 31(3):167. **Annotation:** Evidence from East and Central Africa suggests commercial trade in wild elephant meat becoming increasingly profitable. Conservationists predict increase in poaching from proposals to allow limited trade in ivory, submitted to CITES [E/ECM].
- 2710 LecW ANONYMOUS. (1997). Congo/Zaire Basin forests. *Focus*, 19(2):5. **Annotation:** Rank among most important major tropical forest wildernesses left on Earth. Species found: pygmy chimp, Congo peacock, forest elephant, okapi [E/ECM].
- 2711 LrkW ANONYMOUS. (1997). Contraception for elephants. *Oryx*, 31(2):99-100. **Annotation:** Elephants in South Africa's KNP are undergoing advanced field tests of contraceptive in attempt to find alternative to culling. See Reference nos. 2618, 2713, 2963, 2995, 4131, 4777, 4786, 5098, 5527 [ECM].
- 2712 EbpB ANONYMOUS. (1997). Do animals think? *Best Friends*, November:2-4.
- 2713 LrcW ANONYMOUS. (1997). Elephant contraception experiment in Kruger causes controversy. *Zimbabwe Wildlife*, 86:19, 23.
- 2714 BbcW ANONYMOUS. (1997). Elephant deterrent. *New Scientist*, 19 April, 1997:25. **Annotation:** Zoologist from University of Cambridge is working with Pennsylvania inventor to develop a pepper spray to deter problem elephants [ECM, from "Briefly" notes in *Oryx*, 31(4):234].
- 2715 EwbW ANONYMOUS. (1997). Elephant increase in Bardia. *Oryx*, 31(3):171. **Annotation:** Source - *Gajah*, January, 1997:41-44. Royal Bardia National Park, Nepal has Asian elephant increase in recent years, possibly migration from India for better habitat [E/ECM].
- 2716 LmwW ANONYMOUS. (1997). Elephant numbers...and how to get them. *African Wildlife News*, 32(3):5. **Annotation:** *Loxodonta africana*, extinction, Kenya, Botswana [SLS].
- 2717 LuiW ANONYMOUS. (1997). Elephant poaching in Kenya. *Oryx*, 31(1):17-18. **Annotation:** Poaching, illegal hunting of semi-tame elephants in ANP is on the increase [E/ECM].
- 2718 LcwW ANONYMOUS. (1997). Elephants translocated. *Oryx*, 31(2):99. **Annotation:** Kenya has translocated elephants from Mwea National Game Reserve to Tsavo East National Park [E/ECM].
- 2719 LmwW ANONYMOUS. (1997). Elephant survey. *Oryx*, 31(1):17. **Annotation:** Aerial survey of elephants in North Luangwa National Park, Zambia, shows no population increase in over 5 years [E/ECM].
- 2720 LucW ANONYMOUS. (1997). Ely, son of Echo, attacked in Amboseli. *African Wildlife News*, 32(3):5.
- 2721 BqzC ANONYMOUS. (1997). Farr joins Kim Basinger to help elephants. *The Monterey County Herald*, April 25:page not provided. **Annotation:**

- Representative Sam Farr, actress Kim Basinger join forces to stop abuse of circus and traveling elephants [ECM].
- 2722 **EmnW** ANONYMOUS. (1997). Giant elephants. *Oryx*, 31(1):21. **Annotation:** Expedition to northern Nepal forests confirms giant elephants' existence, possibly subspecies of *Elephas maximus* [E/ECM].
- 2723 **EmbW** ANONYMOUS. (1997). How elephants and trees coexist: twenty years of the Tuli Elephant Project. *REF News*, 17:3. **Annotation:** Bruce Page, Department of Biology at University of Natal Durban Campus, received sponsorship from Rhino & Elephant Foundation for visit to Northern TGR to re-sample vegetation monitoring plots. He has been recording impact of elephants and other environmental factors on trees over the past twenty years [E/ECM].
- 2724 **\*hgU** ANONYMOUS. (1997). Ice age Beringia the focus of new museum in Whitehorse. *Mammoth Trumpet*, October 1997:19.
- 2725 **EqtW** ANONYMOUS. (1997). International workshop reveals suffering of captive Asian elephants. *REF News*, 17:2. **Annotation:** In Myanmar, captive elephants are taken from their mothers at age four. Cruel breaking in procedure takes place in which future mahout tortures the elephant until its spirit is broken [E/ECM].
- 2726 **LiwW** ANONYMOUS. (1997). Ivory stocks pile up. *African Wildlife News*, 32(3):6. **Annotation:** *Loxodonta africana*, poaching, legislation, Burundi, Mozambique, South Africa, Tanzania, Zimbabwe, Namibia, Kenya [MPK].
- 2727 **LmwW** ANONYMOUS. (1997). Knysna elephants extirpated. *Oryx*, 31(2):100. **Annotation:** In February 1996, three female elephants remained in 150 sk kms of indigenous forest at Knysna in Southern Cape area of South Africa [MPK].
- 2728 **LrbW** ANONYMOUS. (1997). Over-excited elephants. *New Scientist*, 31 May, 1997, 5. **Annotation:** Field trials of elephant contraceptive implant in South Africa's KNP suspended by behavioral problems. Oestrogen-only implants, tested on 10 elephant cows, made them appear continually in estrus, soliciting unwanted attention from bulls. See Reference nos. 2618, 2711, 2713, 2963, 2995, 4131, 4777, 4786, 5098, 5527 [ECM].
- 2729 **LzyB** ANONYMOUS. (1997). Paper from poop: taking a sheet in Kenya. *Utne Reader*, May-June:11. **Annotation:** Artist, conservationist has developed process for making paper from elephant dung [MPK].
- 2730 **LcwW** ANONYMOUS. (1997). Proceedings of the African elephant conference sponsored by the Environmental Investigation Agency Charitable Trust, 5-7 May, 1997 Johannesburg, Republic of South Africa. EIA, London, 61 pp.
- 2731 **+gvB** ANONYMOUS. (1997). Review of "The Proboscidea: evolution and palaeoecology of elephants and their relatives" edited by Jeheskel Shoshani and Pascal Tassy, published 1996 by Oxford University Press, 472 pp. *Journal of Mammalian Evolution*, 4(2):145-146. **Annotation:** Dedicated to Henry Fairfield Osborn and Heinz Tobien, two outstanding students of proboscidean evolution; provides valuable updating and overview of this fascinating mammalian order [E/ECM].
- 2732 **LicW** ANONYMOUS. (1997). SA to maintain status quo on elephant trade. *REF News*, 17:3. **Annotation:** At meeting of wildlife ministers of Southern African Development Community (SADC), agreement that South Africa will keep status quo of no international trade in ivory and elephant products of South African origin. Namibia, Botswana, Zimbabwe to ask for elephant population downlisting to allow trade [E/ECM].
- 2733 **LcwW** ANONYMOUS. (1997). Shamwari provides new home for Knysna elephants. *REF News*, 18:3. **Annotation:** Two cow elephants, relocated to Knysna forests from KNP in 1994, to be settled within Shamwari Game Reserve [E/ECM].
- 2734 **LkcW** ANONYMOUS. (1997). South Africa holds off on culling elephants. *South African Star newspaper*, 22 September.
- 2735 **LxvB** ANONYMOUS. (1997). Two species of African elephants? *Oryx*, 31(2):98-99. **Annotation:** Genetic research on African elephants by Dr. Nicholas Georgiadis, Washington University, concludes forest elephants comprise a divergent and genealogically separate lineage from savannah elephants [JS].
- 2736 **LuiW** ANONYMOUS. (1997). What does CITES do? *African Wildlife News*, 32(3):3. **Annotation:** *Loxodonta africana*, legislation, poaching, ivory [MPK].
- 2737 **LbwW** ANONYMOUS. (1997). Zaire elephants take refuge in Uganda. *REF News*, 17:3. **Annotation:** Over 400 elephants cross border to take refuge in QENP due to fighting between Tutsis and government forces in eastern Zaire [BDA].
- 2738 **BcwW** ANONYMOUS (1998). Endangered Species Act update. *Animal Keepers' Forum*, 25(6):232.
- 2739 **EazC** ANONYMOUS (1998). If only humans had the memories of elephants. *Animal Keepers' Forum*, 25(6):233. **Annotation:** An elephant ("Pennie") was euthanized in 1995 and her head buried to preserve skull. Staff members and volunteers at the San Francisco Zoological Gardens have been digging holes since Spring 1998 attempting to find it. Suggestion that zoo place silver dollar with bones it buries so they can be found with metal detector [E/ECM].
- 2740 **EqrC** ANONYMOUS (1998). Jubilee's romantic holiday! *Chester Zoo Life*, Autumn:10-11. **Annotation:** Due to work on new bull elephant accommodation, "Jubilee", the bull, moved to Belfast Zoo, with chance to meet new girlfriends [E/ECM].
- 2741 **EbdC** ANONYMOUS (1998). A love story. *The Detroit Free Press*, February 18, 1998, and *Macomb Daily*, February 18, 1998, p. 8A. **Annotation:** A month after "Mako", a male Asian elephant, died of heart problems at Tete d'Or Zoo in France, his female Asian friend of 34 years, "Pankov", was found in the same ditch where Mako collapsed. She had rejected food after Mako's death. She died that night [ECM].
- 2742 **BqcC** ANONYMOUS. (1998). More experts. *Circus Report*, 47(26):9. **Annotation:** Students at two private schools accused Los Angeles Zoo of mistreating elephants and demanded they be turned loose in private sanctuaries [E/ECM].
- 2743 **BqrC** ANONYMOUS. (1998). New Bull house and pen is a 'musth'! *Chester Zoo Life*, Autumn:8-9. **Annotation:** Work has begun on a new bull elephant house and external pen, to provide adequate space for bulls in musth [E/ECM].
- 2744 **LrjW** ANONYMOUS. (1998). Twin elephants born in Addo. *Pachyderm*, 26:125. **Annotation:** Source: Anna Woodd, AENP. Among 29 calves born in Addo in 1998 were two females, "Duet" and "Duo", born October 7, 1998; Duo died in December. Duet, the surviving twin, is the great-great granddaughter of the park's oldest elephant, sixty year old "Buttercup". The population in Addo as of February, 1999, is 286 [JS].
- 2745 **UqtC** ANONYMOUS. (1999). Circus "trainer" and zoo inspector guilty of cruelty. *The Animal Welfare Institute Quarterly*, Spring:5. **Annotation:** After viewing a videotape showing Mary Chipperfield, prominent "animal trainer" brutally beating a chimpanzee, a camel, and an ele-

- phant ("Flora"), a British court convicted her of twelve counts of cruelty toward animals. Charges were brought against Mrs. Chipperfield, her husband, Roger Cawley, and employee, Stephen Gills, after members of Animal Defenders filmed conditions at Chipperfield farm [E/ECM]. According to Ian Redmond, "Flora" is a female African elephant, imported from Zimbabwe (a cull orphan presumably) in 1988 as a small calf, thus at the time this incident took place, she would have been about 10 or 11 years old. She has now been bought by Dudley Zoo in the Midlands of England [JS].
- 2746 EztC ANONYMOUS. (1999). Illegal CDs trampled to cut piracy. Detroit Free Press, April 29:20A. **Annotation:** Elephant crushed hundreds of compact discs in New Delhi where computer stores stock pirated software [E/ECM].
- 2747 LgjW ANONYMOUS. (1999). Safari: return to our roots. Lufthansa Magazin, 11/99:cover page, 6-14, 16, 18. **Annotation:** "Watching wild animals in their natural habitat is one of the most exciting ways to spend a vacation. Lions, elephants, tapirs or polar bears — it has never been easier to get close up to any one of these creatures". On the cover an African elephant stretches its trunk straight up towards acacia foliage [E/JS].
- 2748 EcwB ANONYMOUS. (1999). Thai elephants thriving in the wild. Focus, 21(2):3. **Annotation:** World Wildlife Funds' field office in Thailand is helping officials reintroduce captive elephants into the wild. Five adult female elephants between ages of 40 and 60 were fitted with radio and satellite transmitters and released in March 1998. Project will be considered a success if the elephants form natural herds, remain in their forest habitat, and begin reproducing [E/ECM].
- 2749 LcwW ANSTEY, Simon. (1993). Angola: Elephants, people and conservation: a preliminary assessment of the status and conservation of elephants in Angola. IUCN, Harare, 26 pp.
- 2750 \*vjU ANTOINE, P. O., DURANTHON, F., and TASSY, P. (1997). L'apport des grands mammifères (rhinocerotidés, suoidés, proboscidiens) à la connaissance des gisements du Miocène d'Aquitaine (France). In Actes du Congrès Biochrom'97, Mémoires et Travaux de l'Ecole Pratique des hautes Etudes, Montpellier (ed. J.-P. Aguilar, S. Legendre, and J. Michaux), 21:581-590.
- 2751 \*hvU ANTUNES, M. T. (1990). The proboscideans data, age and paleogeography: evidence from the Miocene of Lisbon. In European Neogene Mammal Chronology (ed. E. H. Lindsay, V. Fahlbusch, and P. Mein), pp. 253-262, Plenum, New York [copyright date, 1989], 658 pp.
- 2752 EwmW APPAYYA, M. K. (1995). Elephants in Karnataka (India): a status report. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 88-93. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 2753 LcwW ARMBRUSTER, Peter and LANDE, Russell. (1993). A population viability analysis for African elephant (*Loxodonta africana*): how big should reserves be? Conservation Biology, 7(3):602-610. **Annotation:** Age-structured, density dependent model of elephant population dynamics in fluctuating environment drawing primarily on life history parameters obtained from TNP, semi-arid condition studies. Density regulation occurs by changes in age of first reproduction and calving interval. Environmental stochasticity was modeled with drought events affecting sex and age specific survivorship. Results indicate maximum population growth of 3% per year and equilibrium elephant density of 3.1 per square mile. Minimum reserve size of 1,000 square miles necessary to attain a 99% probability of population persistence for 1,000 years [ID-H/M&DR].
- 2754 LciW ARMSTRONG, Sue and BRIDGLAND, Fred. (1989). Elephants and the ivory tower. New Scientist, 123(1679):37-41. **Annotation:** A split between eastern and southern African countries is a dominant theme associated with possibility of banning the ivory trade during the forthcoming October 1989 CITES meeting [ID-H/M&DR].
- 2755 LbwW ARPAILLANGE, Josephine. (1993). Le volontariat au service de la protection des elephants au Botswana. Le Courrier de la Nature, 142:38-40. **Annotation:** Three year Earthwatch program in CNP focused on relationships between elephant and vegetation and possible habitat destruction [ID-H/M&DR].
- 2756 \*hvU ASTIBIA, H. and MAZO, Ana Victoria. (1988). Los Mastodontes (Proboscidea, Mammalia) del Mioceno medio de Tarazona de Aragon (Zaragoza, España). Estudios Geológicos, 44:329-338.
- 2757 EiaB ATAPATTU, Nandana. (1998). Do we have tuskers among *Elephas maximus maximus*. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), p. 26. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 2758 EcwW ATAPATTU, Nandana. (1998). Translocation of wild elephants in Sri Lanka. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), pp. 17-18. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 2759 EwcW AUNG, Myint. (1997). On the distribution, status and conservation of wild elephants in Myanmar. Gajah, 18:47-55. **Annotation:** Table listing townships where elephants occur and tables estimating population and mortality of elephants. Estimate of over 4,000 elephants surviving in Myanmar habitats [ECM].
- 2760 LepW AUSTMYR, Anne Mette. (1994). Elephant (*Loxodonta africana*) seed dispersal in Namibia. MSc, Oxford University, 215 pp.
- 2761 LicW AVELING, Conrad, VIVES, Muriel, and CHRISTY Patrice. (1997). Ivoire: et pour quelques kilos de plus... Canopee. Bulletin sur l'Environnement en Afrique Centrale, 9:3-5.
- 2762 \*avU AVERIANOV, Alexander O. (1996). Sexual dimorphism in the mammoth skull, teeth, and long bones. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 260-267. Oxford University Press, 472 pp.
- 2763 \*avU AVERIANOV, A. O., VARTANYAN, S. L., and GARUTT, V. E. (1995). Small woolly mammoth (*Mammuthus primigenius vrangeliensis* Garutt, Averianov et Vartanyan, 1993) from the Wrangel Island (north-eastern Siberia). Proceedings of the Zoological Institute, St. Petersburg, 263:184-199 [in Russian with English summary]. **Annotation:** Lower M3 of *M. p. vrangeliensis* are different from corresponding teeth of populations of *M. primigenius* from eastern Europe, Russia, Siberia, Dolni Vestonitse, Kostenki, Berelekh [E/ECM].
- 2764 BaoW AYLIFFE, Linda K., LISTER, Adrian M., and CHIVAS, Alan R. (1992). The preservation of glacial-interglacial climatic signatures in the oxygen isotopes of elephant skeletal phosphate. Palaeogeography, Palaeoclimatology, Palaeoecology, 99:179-191.
- 2765 UaoB AYLIFFE, L. K., LISTER, A. M., and LEAKEY, M. G. (1994). The retention of primary oxygen isotope compositions of fossil elephant skeletal phosphate. Geochemica et Cosmochemica Acta, 58(2):5291-5298.
- 2766 \*vhU AZIZ, F. (1990). Pleistocene mammal faunas of Sulawesi and their bearings to paleozoogeography. Unpublished D. Phil. thesis. Kyoto



- University, Japan.
- 2767 \*wvU AZZAROLI, A. (1989). The Upper Valdarno Basin. *Cranium*, 6(3):73-81.
- 2768 \*wxU AZZAROLI, A., de GIULI, C., FICCARELLI, G., and TORRE, D. (1988). Late Pliocene to early mid-Pleistocene mammals in Eurasia: faunal succession and dispersal events. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 66:77-100.
- 2769 LicW BAGLA, Pallava. (1997). Ivory trade seen as threat. *Science*, 276:1972. **Annotation:** Decision by international body to permit trade with Japan in ivory from elephants in three African nations expected to put added pressure on dwindling Asian elephants. Though only stockpiled ivory from Botswana, Namibia, and Zimbabwe can be sold, difficulty identifying ivory source put all animals at greater risk [E/ECM].
- 2770 EisW BAGLA, Pallava. (1997). Longer tusks are healthy sign. *Science*, 276:1972. **Annotation:** Findings at Mudumalai Wildlife Sanctuary in southern India by Milind G. Watve and Raman Sukumar show that male elephants with longer tusks have fewer parasites (article in *Current Science*, 72(11):885-888). Sukumar calls the findings the first demonstration of its kind in mammals. Poachers may be weakening elephant gene pool by removing parasite resistant genes from the population. See Reference no. 5635 [E/ECM].
- 2771 \*hvU BAHN, Paul G. (1999). Some new depictions of mammoths in ice age art. *Deinsea*, 6:39-42. **Annotation:** See Reference no. 3720 for details about "Deinsea 6" [ECM/JS].
- 2772 \*yzU BAHN, P. and VERTUT, J. (1988). *Images of the ice age*. Windward, Leicester.
- 2773 \*avU BAIGUSHEVA, V. S. and GARUTT, V. E. (1987). A skeleton of the steppe elephant *Archidiskodon trogontherii* (Pohlig, 1885) from the north-east Azov Sea region. *Academy of Sciences of the USSR. Proceedings of the Zoological Institute, Leningrad*, 168:21-36 [in Russian].
- 2774 BcwW BAILLIE, Jonathan and GROOMBRIDGE, Brian. (eds). (1996). *1996 IUCN Red List of threatened animals*. The IUCN Species Survival Commission, Gland, Switzerland, 368 pp. + 10 annexes.
- 2775 \*vwU BAJPAI, S., SRIVASTATA, S., and JOLLY, A. (1989). Sirenian-moeritherid dichotomy: some evidence from the middle Eocene of Kachchh, western India. *Current Science*, 58(6):304-306.
- 2776 BdqC BAKER, Barbara and LANGBAUER, Jr., W. R. (1994). Subcutaneous edema in elephants: results of two surveys. *The Elephant Managers Association Newsletter*, 5(2):19-22.
- 2777 BbwW BAKER, R. Robin (consultant ed.). (1991). *Fantastic journeys: the marvels of animal migration*. Merehurst, London (produced by Weldon Owen, Australia), 240 pp. **Annotation:** See Reference no. 5112 [ECM].
- 2778 LmwW BAKKER-COLE, Mary. (1995). Jumbo count pins down roving elephants. *New Scientist*, 148(2004):7. **Annotation:** Summarized in *Oryx* 1996, (2)30:95. Largest single population, up to 120,000 animals, roams over area of 100,000 sq km covering parts of Botswana, Zimbabwe and Namibia. Early results suggest Zimbabwe's past counts accurate. Estimates for GNP are 4,600 while Wild Life Department's July estimate was 4,100 and counts for HNP confirmed population of 22,000 elephants in area experts consider cannot support more than 17,000 [ID-H/M&DR].
- 2779 EbcW BALASUBRAMANIAN, M., BASKARAN, N., SWAMINATHAN, S., and DESAI, A. A. (1995). Crop raiding by Asian elephant (*Elephas maximus*) in the Nilgiri Biosphere Reserve, south India. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 350-367. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 2780 LgjW BALDUS, Rolf D. and STRONACH, Neil. (1994). *Bibliography on Selous Game Reserve*. GTZ, Dar es Salaam, 29 pp. (SCP Discussion Paper; 17).
- 2781 LbzW BALFOUR, D. (1993). A brush with death. *Africa - Environment & Wildlife*, 1(2):16-17. **Annotation:** *Loxodonta africana*, attacking-humans, behavior, ethology, KNP [MPK].
- 2782 LgkW BALFOUR, Daryl and BALFOUR, Sharna. (1997). *African elephants: a celebration of majesty*. Struik Publisher (Pty) Ltd., Cape Town, 168 pp. **Annotation:** Forewords by Iain Douglas Hamilton, John Hanks, Daphne Sheldrick. Over 200 photos of African elephants, history of ivory trade, culling issues; see also review by J. P. Dudley in this issue of *Elephant* [JS].
- 2783 EraC BALKE, J. M. E., BARKER, I. K., HACKENBERGER, M. K., MCMANAMON, R., and BOEVER, W. J. (1988). Reproductive anatomy of three nulliparous female Asian elephants: the development of artificial breeding techniques. *Zoo Biology*, 7(2):99-113.
- 2784 LraB BALKE, J. M. E., BOEVER, W. J., ELLERSIECK, M. R., SEAL, Ulysses S., and SMITH, D. A. (1988). Anatomy of the reproductive tract of the female African elephant (*Loxodonta africana*) with reference to development of techniques for artificial breeding. *Journal of Reproduction & Fertility*, 84(2):485-492.
- 2785 BrqC BALKE, J. M. E., READ, B. W., BOEVER, W. J., GIBSON, D., MILLER, R. E., JUNGE, R. E., SEAL, U. S., and PLOTKA, E. D. (1987). Artificial insemination in elephants. *American Association of Zoological Parks and Aquaria Regional Conference Proceedings*, 1987:652-658.
- 2786 EevB BÄNZIGER, H. (1988). The heaviest tear drinkers: ecology and systematics of new and unusual notodontid moths. *Natural History Bulletin of the Siam Society*, 36:17-53. **Annotation:** *Elephas maximus*, interspecific relations, eyes [MPK].
- 2787 LicW BARBIER, Edward B. (1995). Elephant ivory and tropical timber: the role of trade interventions in sustainable management. *The Journal of Environment and Development*, 4(2):1-32. **Annotation:** African elephant ivory trade ban imposed by CITES. Ineffective over time suggests trade for sustainable yield providing economic returns to countries [ID-H/M&DR].
- 2788 BicW BARBIER, Edward B. and BURGESS, Joanne C. (1989). Analysis of the demand for raw ivory: case studies of Japan and Hong Kong: London, IIED (International Institute for Environment and Development). LEEC Paper 89-05. **Annotation:** Examines trends in total and net demand for unworked ivory of Japan and Hong Kong during periods of 1950-87 and 1962-87, respectively [ID-H/M&DR].
- 2789 LicW BARBIER, Ed[ward B.] and BURGESS, Joanne [C.]. (1989). Analyzing the demand for raw ivory. In *The ivory trade and the future of the African elephant* (coord. S. Cobb), Vol. 2, Technical Reports, Section 4.4. The Ivory Trade Review Group, Oxford.
- 2790 LicW BARBIER, E. B. and BURGESS, J. C. (1990). *Economics of the ivory trade: issues and options*. LEEC, London, 6 pp. (Aften Technical Notes).
- 2791 LicW BARBIER, Edward [B.] and SWANSON, T. [M.]. (1990). Ivory, the case against the ban. *New Scientist*, 128(1743):52-54. N S Issue of 17 November. **Annotation:** Southern African countries maintain ivory ban, suggest sustainable management of elephant populations more positive approach to survival and conservation than ivory ban [ID-H/M&DR].

- 2792 LicW BARBIER, Edward B., BURGESS, Joanne C., SWANSON, T. M., and PEARCE, D. W. (1990). Elephants, economics and ivory. Earthscan Publications Ltd, London, 154 pp. **Annotation:** Statistics on African ivory exports, intra Africa trade, trade flows and final demand in Hong Kong, Japan, China, Europe and USA. Explores policies for regulating ivory trade including current CITES regulations [ID-H/M&DR]. Reviewed by Ridley, 1991, Reference no. 4896; cf. Reference no. 3301 [ECM].
- 2793 BicW BARFOD, A. (1989). The rise and fall of vegetable ivory. Principes, 33(4):181-190.
- 2794 EecW BARI, A. (1992). Saving the Asian elephant. Gajah, 9:34-35.
- 2795 LgcC BARITT, David and ROGERS, Dusty. (1988). Elephant safari. Sunday Times Magazine (Johannesburg, South Africa), (September 25):20-22. **Annotation:** "Randall Moore's unique game-spotting operation" from elephant-back in Botswana; cf. Reference no. 4506 [E/JS].
- 2796 EqjC BARNABY, David. (1988). The elephant who walked to Manchester. Basset Publications, Plymouth (England), 66 pp.
- 2797 LdoW BARNARD, B. J. H., BENGIS, Roy G., KEET, D. F., and DEKKER, E. H. (1995). Epidemiology of African horsesickness: Antibodies in free-living elephants (*Loxodonta africana*) and their response to experimental infection. Onderstepoort Journal of Veterinary Research, 62(4):271-275.
- 2798 EtzC BARNARD, Charles N. (1995). Pachyderm polo. Modern Maturity, 38(3):52-55, 82-83, 85. **Annotation:** Playing polo on elephant back in Nepal [E/ECM].
- 2799 LcwW BARNES, J. I. (1990). Economic analysis of different options for elephant management in Botswana. In The future of Botswana's elephants. Proceedings of a workshop organised by The Kalahari Conservation Society in conjunction with The Department of Wildlife and National Parks. 10 November 1990 (ed. P. Hancock) Gaborone, Botswana, Gaborone, Kalahari Conservation Society, pp. 60-66.
- 2800 LciW BARNES, J. I. (1996). Changes in the economic use value of elephant in Botswana: the effect of international trade prohibition. Ecological Economics, 18(3):215-230.
- 2801 LujW BARNES, K. [L.] and BARNES, Richard [F. W.]. (1993). A lost generation. Wildlife Conservation, 96(2):70-71. **Annotation:** Loss of population due to poaching in RNP. Major effect is lack of juveniles noted; estimates via footprint analysis. Suggests fear and aggressive behavior noted in elephant herds result from excessive poaching [ID-H/M&DR].
- 2802 LcmW BARNES, Richard F. W. (1987). A review of the status of elephants in the rain forest of central Africa. In African elephant database project: final report (ed. A. Burrill and I. Douglas-Hamilton). UNEP/GRID, Nairobi.
- 2803 LcwW BARNES, Richard F. W. (1989). Forest elephant surveys in Central Africa. Pachyderm, 12:46.
- 2804 LmcW BARNES, Richard [F. W.] (1989). Special Report: elephants in the forest. IUCN Bulletin, 20(1-3):18. **Annotation:** 1988 census estimated elephant population of Gabon to be at least 70,000 [ECM].
- 2805 LmcW BARNES, Richard [F. W.] (ed.). (1989). The status of elephants in the forests of central Africa: results of a reconnaissance survey. Wildlife Conservation International, New York.
- 2806 LmcW BARNES, Richard F. W. (1989). The status of elephants in the forests of central Africa: results of a reconnaissance survey. In The ivory trade and the future of the African elephant (coord. Steven Cobb), Vol. 2, Technical Reports, Section 1.2. The Ivory Trade Review Group, Oxford. **Annotation:** Survey to ascertain elephant populations in forests of central Africa. Based on premise that human population rather than habitat availability determines density within general range [ID-H/M&DR].
- 2807 LcwW BARNES, Richard F. W. (1990). Deforestation trends in tropical Africa. African Journal of Ecology, 28:161-173.
- 2808 LmcW BARNES, Richard F. W. (1991). Elephant censusing in the Guinea-Congolian forests. In Censusing elephants in forests: proceedings of an international workshop 2-10 January 1991 (ed. U. Ramakrishnan, J. A. Santosh, and R. Sukumar), pp. 65-72. Bangalore, Asian Elephant Conservation Centre. **Annotation:** Techniques to determine numbers and distribution of forest elephants, significant value to understanding African elephant status. Estimated total 214,300 includes 15,500 Cameroon; 2,200 Central African Republic; 40,500 the Congo; 500 Equatorial Guinea; 68,700 Gabon; 86,900 Zaire, circa 1989 [ID-H/M&DR].
- 2809 LbjW BARNES, Richard [F. W.]. (1993). The elephants of Ruaha. Wildlife Conservation, 96(2):68-69. **Annotation:** Differences in daily routine of elephants in RNP during wet and dry seasons [ID-H/M&DR].
- 2810 LmwW BARNES, Richard F. W. (1993). Indirect methods for counting elephants in forest. Pachyderm, 16:24-30. **Annotation:** Proceedings of AfESG meeting, Victoria Falls Zimbabwe, November 17-22 1993. Two methods often used to estimate forest elephant numbers: guesses, dung counts [ID-H/M&DR].
- 2811 LmcW BARNES, Richard F. W. (1994). Human-elephant conflict in West and Central Africa. In The African Elephant in the context of CITES 19-23 September, 1994 Kasane, Botswana. Part B Background Papers. United Kingdom. Department of the Environment, London, pp. 31-41. **Annotation:** Western and central Africa divided into three areas relating to human and elephant population numbers. Western coastal and Sahelian regions account for under 5% of continental elephant population. Populations are relatively isolated from each other by cultivation. Central forest elephants may account for one quarter to one third of continental population. Management options, constraints, and recommendations [ID-H/M&DR].
- 2812 LmjW BARNES, Richard [F. W.]. (1995). The great African dung rush. Swara, 18(4):24-25. **Annotation:** One technique used more and more often to count elephants and other animals. More people working in elephant manure than ever before. You could say dung is growth industry [E/ECM].
- 2813 LbcW BARNES, Richard [F. W.]. (1996). The conflict between humans and elephant in the Central Africa forest. Mammal Review, 26(2/3):67-80.
- 2814 LmeW BARNES, Richard F. W. (1996). Estimating forest elephant abundance by dung counts. In Studying elephants (ed. Kadzo Flora Kangwana), pp. 38-48. African Wildlife Foundation, Nairobi, Kenya, 178 pp. **Annotation:** Dung counts help indirect census. Dung surveys used two ways: as index of abundance or relative distribution, or translated into estimated population count. Discusses setting of transects, variation in defecation rate, decay rates of dung, analysis of data [ID-H/M&DR].
- 2815 LcwW BARNES, R. F. W. (1999). Is there a future for elephants in West Africa? Mammal Review, 29(3):175-199. **Annotation:** "As more habitat is lost to human activities, West African elephants will soon remain only in protected areas" [E/ECM].
- 2816 LwmW BARNES, Richard [F. W.] and BARNES, K. (1990). You can't see the elephants for the trees. Wildlife Conservation, 93(2):38-45. **Annotation:** Difficulties in estimating forest elephant in rain forest of Gabon, using 12 mile long transects and dung droppings, factors

- influencing elephant distribution. Elephants relish vegetation in abandoned forest plantations but avoid places where humans are active such as roads, villages, farms, forest areas with hunting [ID-H/M&DR].
- 2817 LjmW BARNES, Richard F. W. and BARNES, K. L. (1992). Estimating decay rates of elephant dung-piles in forest. *African Journal of Ecology*, 30(4):316-321. **Annotation:** Data from dropping decay experiment in Gabon were reanalyzed following findings by workers that decay is not exponential process. Based on assumption of constant age specific decay gave biased estimates of mean decay rate for population of droppings. Best estimate was obtained by weighing decay rate by frequency of dropping in each age class [ID-H/M&DR].
- 2818 LmeW BARNES, Richard F. W. and JENSEN, K. L. (1987). How to count elephants in forests. *African Elephant and Rhino Special Group Technical Bulletin*, 1:1-6. [Version in French — Comment compter les éléphants de forêt?, translated by Dr. H. Mertens]. **Annotation:** Ground survey for estimating forest elephant populations in west and central Africa, based on counting and analyzing density of dung along a transect and estimating age of dung according to rate of decay of dung during season observed [ID-H/M&DR].
- 2819 LumW BARNES, Richard F. W. and KAPELA, E. B. (1991). Changes in the Ruaha elephant population caused by poaching. *African Journal of Ecology*, 29(4):289-294. **Annotation:** Found ivory records complement information provided by aerial surveys to illustrate changes in RNP elephant population between 1973 and 1988. Intense poaching in late 1970s and early 1980s reduced numbers by about 60% and distorted age structure of survivors. Now few cows over 34 years old, few bulls over 16 years. Footprint measurements in 1989 showed lack of calves aged 2 to 9 years but many newborn infants [ID-H/M&DR].
- 2820 LiuW BARNES, Richard F. W., AGNAGNA, Marcellin, ALERS, M. P. T., BLOM, Allard, DOUNGOUBE, Gustave, FAY, J. Michael, MASUNDA, Tshobo, NDO NKOU MOU, J. C., SIKUBWABO KIYENGO, C., and TCHAMBA, Martin N. (1993). Elephants and ivory poaching in the forests of equatorial Africa. *Oryx*, 27(1):27-34. **Annotation:** Reconnaissance surveys of forests of four central African countries establish, for the first time, status of forest-dwelling elephants. Results, combined with information from previous surveys in other countries, provide picture of elephant situation in forest zone, especially impact of poaching. About one-third of forest elephant population of central Africa is found in Zaire, and about one-third in Gabon. The rest in Cameroon, Central African Republic, Equatorial Guinea, and Congo. It is poaching for ivory, rather than human population growth, threatening equatorial forest elephants [ID-H/M&DR].
- 2821 LcmW BARNES, Richard F. W., ASAMOAH-BOATENG, B., NAADA, Majam J., AGYEI-OHEMENG, J., TCHAMBA, Martin N., EKOBO, Atanga, NCHANJI, Anthony Chifu. (1994). *Improving the accuracy of forest elephant census methods: studies of dung decay rates in Ghana and Cameroun*. AECCG/EDG, Oxford, 101 pp. (EC African Elephant Conservation Programme 1992-1994; volume 5).
- 2822 LemW BARNES, Richard F. W., ASAMOAH-BOATENG, B., NAADA, Majam J., and AGYEI-OHEMENG, J. (1997). Rainfall and the population dynamics of elephant dung-piles in the forests of southern Ghana. *African Journal of Ecology*, 35(1):39-52.
- 2823 LckW BARNES, Richard F. W., AZIKA, S., and ASAMOAH-BOATENG, B. (1995). Timber, cocoa, and crop-raiding elephants: a preliminary study from southern Ghana. *Pachyderm*, 19:33-38. **Annotation:** Land use changes first related to logging, more recently to cocoa and other crops, disrupted to elephant populations and increased human-elephant conflict in Kakum National park in southern Ghana [ID-H/M&DR].
- 2824 LbuW BARNES, Richard F. W., BARNES, Karen L., and KAPELA, E. B. (1994). The long-term impact of elephant browsing on baobab trees at Msembe, Ruaha National Park, Tanzania. *African Journal of Ecology*, 32(3):177-184. **Annotation:** Baobab tree population of Msembe study area surveyed for a third time in 1989. Though tree density dropped between 1976 and 1982, no significant change between 1982 and 1989 because most bull elephants killed by poachers. Study indicated elephant browsing has a different effect on baobab numbers compared with browsing on other tree populations [ID-H/M&DR].
- 2825 LmwW BARNES, Richard F. W., BARNES, Karen L., ALERS, M. P. T., and BLOM, Allard. (1991). Man determines the distribution of elephants in the rain forests of northeastern Gabon. *African Journal of Ecology*, 29(1):54-63. **Annotation:** Dung counts assessing elephant numbers in remote forests of northeastern Gabon with few people and no logging. Elephants prefer secondary forest growing on abandoned villages and plantations, avoid roads and villages. Thus elephant distribution governed by distribution of past and present human settlement, even in remotest and least disturbed forests of equatorial Africa [ID-H/M&DR].
- 2826 LmcW BARNES, Richard F. W., BLOM, Allard, ALERS, M. P. T., and BARNES, Karen L. (1995). An estimate of the numbers of forest elephants in Gabon. *Journal of Tropical Ecology*, 11(1):27-37. **Annotation:** Using stratified dung count, forest elephant population in Gabon estimated at about 61,800 +/- 20,200. Dung piles along line-transects were noted in survey which stratified forest zone according to distribution of human population in general forest area [ID-H/M&DR].
- 2827 LmuW BARNES, Richard F. W., BLOM, A., and ALERS, M. P. T. (1995). A review of the status of forest elephants *Loxodonta africana* in central Africa. *Biological Conservation*, 71(2):125-132. **Annotation:** Status of forest elephants, circa 1989, in western part of the continent. Population makes up about one third of continental numbers from 1979-1988, about one third of recorded ivory harvest came from here. Poaching most urgent short term threat, increasing human agricultural and forestry activities must be addressed [ID-H/M&DR].
- 2828 LmwW BARNES, Richard F. W., BEARDSLEY, Karen, MICHELMORE, Frances, BARNES, Karen L., ALERS, M. P. T., and BLOM, Allard. (1997). Estimating forest elephant numbers with dung counts and a geographic information system. *Journal of Wildlife Management*, 61(4):1384-1393. **Annotation:** In Gabon forests, elephant dung pile density increases with distance from roads. Authors present new method to estimate dung-pile population using gradient of dung density in relation to roads [E/ECM].
- 2829 BnpC BARNETT, James. (1990). Elephant nutrition. *Proceedings of the Fourth Elephant Keepers Workshop, Port Lympne Zoo Park, United Kingdom*, pages 29-32. Published by Port Lympne Zoo Park, Port Lympne, England, 35 pp.
- 2830 BldW BARNETT, James. (1991). Disease and mortality. In *The illustrated encyclopedia of elephants* (consult. ed. S. Keith Eltringham), pp. 102-115. Crescent Books, New York, 188 pp.; also Salamander Books, London. **Annotation:** *Loxodonta africana*, *Elephas maximus*, grooming, parasites, teeth, tusks, injury, predation, drought. On page 106 is photo of tuskless African male. Subtitle in Reference nos. 3408, 3415 [MPK].
- 2831 \*vaU BARRIEL, Véronique and TASSY, Pascal. (1998). Rooting with multiple outgroups: consensus vs parsimony. *Cladistics*, 14:193-200. **Annotation:** *Anthracobune* is "not 100% closely related to Proboscidea *sensu stricto*" [E/ECM].

- 2832 +vaB BARRIEL, Véronique, DARLU, P., and TASSY, Pascal. (1993). A propos des conflits entre phylogénies morphologiques et moléculaires: deux exemples empruntés aux mammifères. Annales des Sciences Naturelles, Zoologie, Paris, 13<sup>e</sup> série, 14(4):157-171 [in French with French and English summaries]. **Annotation:** "Mammalian phylogeny and conflicts between morphological and molecular data." Interrelationships of Hominoidea and relationships of Tethytheria (elephants and sea-cows) to other eutherian orders or superorders [ECM, p. 157].
- 2833 +vaU BARRIEL, Véronique, THUET, Estelle, and TASSY, Pascal. (1998). Molecular phylogeny (cytochrome *b*) of elephantids and the question of infra-taxon polymorphism (including woolly mammoth and the extant forest African elephant). Program and abstracts, 17th Meeting of the Willi Hennig Society, Sao Paulo 21-25 September 1998, p.11.
- 2834 LvaB BARRIEL, Véronique, THUET, Estelle, and TASSY, Pascal. (1999). Molecular phylogeny of Elephantidae. Extreme divergence of the extant forest African elephant. Comptes Rendus de l'Académie des Sciences, Série III (Sciences de la vie, Life Sciences) Paris, 322(6):447-454 [in English with abridged version in French, English and French abstracts]. **Annotation:** "The analyses of extant taxa only and of both extant and extinct taxa show that *L. a. cyclotis* is highly divergent from *L. a. africana*. It is as divergent from *L. a. africana* as *Loxodonta* is divergent from *Elephas*" [E/SKB].
- 2835 LbzC BARRIOS, Joseph. (1996). Peckish pachyderm tastes freedom. Tucson Citizen, October 26:page not provided. **Annotation:** "Moxie", a 4,500 pound African elephant, escaped from pen at a carnival, wandered eating caramel apples, roasted corn, and popcorn from stands, and damaged four police cars [E/ECM].
- 2836 LicW BARTHOLET, J. and WILLIAMS, P. (1989). A tussle over tusks. Newsweek, [24 July 89]:25.
- 2837 LwbW BARTLETT, Des and BARTLETT, Jen. (1992). Africa's skeleton coast. National Geographic Magazine, 181(1):54-85. **Annotation:** Desert springs and Atlantic fog sustain plants and animals in Namibia. Survival techniques of animals, elephants included. Photos of elephants charging down dune, bathing in waterhole, trekking in desolate landscape, and seeds of acacia sprouting from elephant dung [E/ECM].
- 2838 UrcW BARTLETT, Ellen. (1997). Jumbo birth control drives bull elephants wild. New Scientist, 154(2084):5.
- 2839 EceW BARUA, Parbati. (1995). Managing a problem population of elephants. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 150-161. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 2840 EwmW BARUA, Parbati and BIST, S. S. (1995). Changing patterns in the distribution and movement of wild elephants in North Bengal. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 66-84. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 2841 \*hvU BARYSHNIKOV, Gennady, HAYNES, Gary, and KLIMOWICZ, Janis. (1999). Mammoths and the mammoth fauna: introduction to the studies of an extinct ecosystem. Deinsea, 6:3-8. **Annotation:** See Reference no. 3720 for details about "Deinsea 6" [ECM/JS].
- 2842 \*ewU BARYSHNIKOV, Gennady, AGENBROAD, L. D., and MEAD, J. I. (1994). Carnivores from the Mammoth Site, Hot Springs, South Dakota. In The Hot Springs Mammoth Site: a decade of field and laboratory research in paleontology, geology, and paleoecology (ed. L. D. Agenbroad and J. I. Mead), pp. 306-358. The Mammoth Site of South Dakota, Hot Springs, 457 pp.
- 2843 BcwW BARDZO, Jonathan G., BROAD, Steven, INSKIP, Tim, LOCHEN, Kim, and LUXMOORE, Richard A. (compilers). (1990). CITES conference in Switzerland. Traffic Bulletin, 11(2/3):20-29.
- 2844 EbwW BASKARAN, N. and DESAI, Ajay A. (1996). Ranging behaviour of the Asian elephant (*Elephas maximus*) in the Nilgiri Biosphere Reserve, south India. Gajah, 15(January 1996):41-57. **Annotation:** Understanding of home range invaluable for conservation and management. Summary of long-term study carried out in Nilgiri Biosphere Reserve in South India under auspices of Bombay Natural History Society [E/ECM].
- 2845 EwcW BASKARAN, N., BALASUBRAMANIAN, M., SWAMINATHAN, S., and DESAI, Ajay A. (1995). Home range of elephants in the Nilgiri Biosphere Reserve, south India. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 296-313. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 2846 LciW BASKIN, Y. (1994). There's a new wildlife policy in Kenya: use it or lose it. Science, 265:733-734.
- 2847 LiyW BASSANI, E. and FAGG, W. B. (1988). Africa and the Renaissance: art in Ivory. The Center for African Art, New York, 255 pp.
- 2848 LicW BASSON, M., BEDDINGTON, J. R., and MAY, R. M. (1991). An assessment of the maximum sustainable yield of ivory from African elephant populations. Mathematical Biosciences, April 104(1):73-95.
- 2849 LiuW BATTIATA, M. (1989). Kenya calls for ban on ivory trade. Washington Post [12 May 89].
- 2850 BqdC BAXTER, Tim. (1988). Foot care of elephants. Proceedings of the First British Elephant Workshop (Chester Zoo), Chester, England, pages 10-18.
- 2851 LcuW BEARD, Peter H. (1988). The end of the game (new edition). Chronicle Books, San Francisco, 286 pp. **Annotation:** A personal, superbly photographed, often shocking account of decline of Kenyan wildlife, primarily elephants especially in TNP. A last, loving look at the "old Africa" fast disappearing under flood of humanity [MPK].
- 2852 LjcW BEARD, P. (1997). Crunch time. People, 3 Mar. 97:101-104. **Annotation:** *Loxodonta africana*, attacking-human, Kenya [MPK].
- 2853 \*vwU BEARSS, R. E. and KAPP, R. O. (1987). Vegetation associated with the Heisler Mastodon Site, Calhoun County, Michigan. Michigan Academician, 19(1):133-140.
- 2854 LroB BECHERT, Ursula S. (1998). Factors affecting prolactin secretion in the African elephant. D. Phil. Thesis, Oregon State University, Corvallis, 132 pp. **Annotation:** Estrus, ovaries, reproduction [ID-H/M&DR].
- 2855 LrpB BECHERT, Ursula S., SWANSON, L., WASSER, S. K., HESS, D. L., STROMSHAK, F. (1998). Factors affecting prolactin secretion in the African elephant [Abstract] Program for the thirty-first annual meeting of the Society for the Study of Reproduction, Texas A&M University, College Station, Texas August 8-11, 1998. Biology of Reproduction, 58(Supplement 1):175.
- 2856 \*vhU BEDEN, M. (1987). Fossil Elephantidae from Laetoli. In Laetoli: a Pliocene site in northern Tanzania (ed. M. D. Leakey and J. M. Harris), pp. 259-300. Clarendon, Oxford.
- 2857 \*vhU BEDEN, M. (1987). Les faunes Plio-Pléistocène de la basse vallée de l'Omo (Éthiopie), Vol. 2: Les Eléphantidés (Mammalia-Proboscidea)

- (directed by Y. Coppens and F. C. Howell), pp. 1-162. Cahiers de Paléontologie—Travaux de Paléontologie est-africaine. Centre National de la Recherche Scientifique (CNRS), Paris.
- 2858 LbnW BEEKMAN, J. H. and PRINS, Herbert H. T. (1989). Feeding strategies of sedentary large herbivores in East Africa, with emphasis on the African buffalo, *Syncerus caffer*. African Journal of Ecology, 27(2):129-147. **Annotation:** Comparison of feeding strategy of buffalo, wildebeest, Burchell's zebra and elephant - carried out in LMNP. Especially in dry season, elephant are time-limited and, presumably to alleviate shortage in energy intake, switch from grazing to browsing. Zebra and wildebeest show high grazing times during the day and little resting time during dry season. If these two species are time-limited at that time of year, it appears to be due to predation risk at night. Buffalo are not time-limited and show two foraging strategies: bulk feeding and selective feeding. They appear to be resource-limited. All 4 species show correspondence in proportion of time spent on food collection. On yearly basis, time spent on foraging plus moving approximates to 80% of (day) time. Feeding strategies are different, though they inhabit same environment and face same shortages [ID-H/M&DR].
- 2859 LkcW BEGG, Angus. (1995). The great elephant debate: to cull or not to cull... African Wildlife, 49(4):6-9.
- 2860 LkcW BEGG, Angus. (1996). Hard choices. Keeping Track, April/May 1996:18-22. **Annotation:** "The issue revolves around elephants, but involves culls, big game hunters, animals rights, community rights, and five million American dollars." *Loxodonta africana*, KNP, PNP [MPK].
- 2861 BcuW BEILENSON, Anthony C. (1992). United States politics and elephant conservation. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 210-213. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** *Loxodonta africana*, poaching, legislation, ivory, art [MPK].
- 2862 \*ohU BELFIELD, Dominic. (1988). Latest odds on the modern mammoth. BBC Wildlife, 6(3):148.
- 2863 ErqC BELL, Catharine. (1992). A birth we'll always remember, an elephant we'll never forget. Zoo Life, 3(1):78-85.
- 2864 LucW BELL, R. H. V., JACHMANN, H., CHIMBALI, D. M., and MULONDA, E. Y. (1993). Illegal activities and law enforcement in the Central Luangwa Valley, Zambia, from 1979 to 1992. Pachyderm, 16:81-82.
- 2865 LioW BELL, R. H. V., KELSALL, J. P., RAWLUK, M., and AVERY, D. H. (1989). Tracing ivory to its origin: microchemical evidence. Pachyderm, 12:29-31. **Annotation:** Animal tissues vary in microchemical composition because of differences in geochemistry transmitted to the animal through food. Fluorescing X-ray spectroscopy and electron beam microprobe were used to measure chemical differences in ivory samples from three protected areas in Malawi and one in Zambia. Details of experimental material such as number of samples, sex and age of elephants are given [ID-H/M&DR].
- 2866 LjcW BELT, Don. (1999). Forest elephants. National Geographic Magazine, 195(2):100-113. **Annotation:** Photographs by Michael Fay and Michael Nichols [ID-H/M&DR].
- 2867 BobC BEN-ARI, Elia T. (1998). Pheromones: what's in a name? BioScience, 48(7):505-511. **Annotation:** Recent study shows evidence for human pheromones. Male elephants detect pheromone, (Z)-7-dodecenyl acetate, in urine of female by smelling urine, then placing trunk tip on openings of ducts leading to vomeronasal organ. Pheromone indicates to male that female is ready to mate. Page 509 describes work of L. E. L. Rasmussen. Depicts Asian bull elephant ("Packy") displaying "flehmen response", curling trunk and placing tip on opening of vomeronasal organ [E/ECM].
- 2868 BbpB BEN-ARI, Elia T. (1999). A throbbing in the air. BioScience, 49(5):353-358. **Annotation:** Discovery of infrasonic communication among elephants gives researchers whole new way of hearing things [E/ECM].
- 2869 \*vwU BENDUKIDZE, Oleg G. and LUCAS, Spencer G. (1997). Early Miocene proboscideans from Kazakhstan. Journal of Vertebrate Paleontology, Abstracts of Papers, Volume 17, Supplement to Number 3:31A.
- 2870 LgqC BENGIS, R. G. (1993). Care of the African elephant *Loxodonta africana* in captivity. In The capture and care manual: capture, care, accommodation and transportation of wild African animals (ed. Andrew A. McKenzie), pp. 506-511. Wildlife Decision Support Services, South African Veterinary Foundation, Pretoria, South Africa, 730 pp. **Annotation:** Translocation, behavior, grooming, digestion, nutrition, salt-lick, disease, parasites, injury, tusks, musth, KNP [MPK].
- 2871 LkuW BENGIS, R. G. (1996). Elephant population control in African national parks. Pachyderm, 22:83-86. **Annotation:** *Loxodonta africana*, culling, hunting, translocation, Zimbabwe, South Africa, Uganda [MPK].
- 2872 LgjW BENGIS, Roy G., KEET, D. F., RAATH, Jacobus, and DE VOS, V. (reprinted 1994). Experiences with the short term management and care of newly captured juvenile African elephants (*Loxodonta africana*) in the Kruger National Park. In The African elephant as a game ranch animal (ed. J. van Heerden and B. L. Penzhorn), pp. 75-84. SAVA Wildlife Group, Onderstepoort, South Africa, 192 pp. **Annotation:** Translocation, social-relations, food, milk, parenting, disease [MPK].
- 2873 BbtC BENIRSCHKE, K. and ROOCROFT, A. (1992). Elephant-inflicted injuries. Verhandlungsbericht, Internationalen Symposiums über die Erkrankungen der Zootiere, Berlin, 8:239-247.
- 2874 LjwW BENNETTS, L. (1996). African dreamer. Vanity Fair, no. 435:206-222 [November issue]. **Annotation:** *Loxodonta africana* attacking-human, Kenya. Regarding Peter Beard ("Kenya's Peter Pan") [MPK].
- 2875 LjwW BEN-SHAHAR, R[aphael]. (1993). Patterns of elephant damage to vegetation in northern Botswana. Biological Conservation, 65(3):249-256. **Annotation:** Elephant induced damage to trees and shrubs that dominated vegetation biomass in 33 sites suggest elephants had more or less random impact on vegetation throughout their range. Proportion of important food plants increased in proximity to water sources. Clear distinction between effects of fire and effects of elephants on different plant species, in CNP and Moremi Game Reserve, Botswana [ID-H/M&DR].
- 2876 LbnW BEN-SHAHAR, Raphael. (1996). Do elephants over-utilise mopane woodlands in northern Botswana? Journal of Tropical Ecology, 12(4):505-515.
- 2877 LbcW BEN-SHAHAR, Raphael. (1996). Woodland dynamics under the influence of elephants and fire in northern Botswana. Vegetatio, 123(2):153-163.
- 2878 LecW BEN-SHAHAR, Raphael. (1997). Elephants and woodlands in northern Botswana: how many elephants should be there? Pachyderm, 23:41-

43. **Annotation:** Northern Botswana can sustain well beyond the maximum number (60,000) set in 1991. But, for future conservation, management policies should set desired composition and structure of indigenous plant communities, rather than maintain threshold number of elephants [E/ECM].
- 2879 **LemW** BEN-SHAHAR, Raphael. (1997). Okavango elephants: can northern Botswana sustain the largest elephant population in Africa? Wildlife Conservation, 100(3):28-35.
- 2880 **+vjB** BENTON, Michael J. (ed.). (1988). The phylogeny and classification of the tetrapods. Volume 2: mammals. (Systematics Association, Special Volume, no. 35B). Clarendon Press, Oxford, 329 pp. **Annotation:** Chapters by Novacek *et al.*, and Tassy and Shoshani include observations on phylogenetic position of Proboscidea within Mammalia; Sirenia is closest living relative of Proboscidea [JS].
- 2881 **BgvU** BENTON, Michael J. (1991). The rise of the mammals. Crescent Books, New York (produced by Quarto Publishing Place, London), 144 pp. **Annotation:** A good guide on this topic, includes Proboscidea [JS].
- 2882 **LcwW** BERGER, Joel and CUNNINGHAM, Carol. (1994). Active intervention and conservation: Africa's pachyderm problem. Science, 263(5151):1241-1242.
- 2883 **BvwB** BERGSTEN, Johannes, DAVEY, Matt, and EMILSSON, Lena. (1997). A biogeographical and morphological study of the elephants (Order Proboscidea). Umeå University, Sweden, 37 pp. **Annotation:** Description and determination of taxa within order, especially teeth [ECM].
- 2884 **LdcW** BERRY, H. H. (1993). Surveillance and control of anthrax and rabies in wild herbivores and carnivores in Namibia. Revue Scientific et Technique, (OIE) 12(1):137-146.
- 2885 **EbtC** BERTHAUER, Robert. (1997). Way Kambas. Animal Keepers' Forum, 24(6):267-72. **Annotation:** Way Kambas reserve is on southeast coast of Lampung Province on island of Sumatra. Author visited Elephant Training Center and Way Kanan, which holds over 100 elephants, most of which were taken from the wild after episodes of crop raiding or causing injury or death to local residents. Center personnel attempt to train animals for use in forestry operations or as riding elephants or performers [ECM].
- 2886 **\*apU** BERTRAND, P. (1988). Evolution de la structure de l'email chez les Proboscidea primitif: aspect phylogénétique et fonctionell. In Teeth revisited (ed. D. E. Russell, J. P. Santora, and D. Sigogneau-Russell), pp. 109-124. Proceedings of the VIIth International Symposium of Dental Morphology. Mémoires de Muséum National d'Histoire Naturelle, Paris.
- 2887 **BqtC** BETTENBENDER, Robin. (1988). Foot care and skin care: vital components of the elephant management program at the Lincoln Park Zoo. AAZPA Regional Conference Proceedings, 1988:545-547.
- 2888 **BqrC** BETTENBENDER, Robin. (1988). Lincoln Park Zoo's participation in a reproduction program for Asian elephants. In Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988, pp. 19-21. Jacksonville Zoological Park, Florida, 145 pp.
- 2889 **\*yzU** BEUKER, J. R. (1993). Mammoetexpositie in het Drents Museum. Cranium, 10(2):117-118.
- 2890 **LapW** BEZUIDENHOUT, A. J. and SEEGER, Christina D. (1996). The osteology of the African elephant (*Loxodonta africana*): vertebral column, ribs and sternum. Onderstepoort Journal of Veterinary Research, 63(2):131-147. **Annotation:** Clearly written and illustrated; cf. Reference nos. 5220-21, 5540 [JS].
- 2891 **LewW** BHIMA, Roy. (1991). Some aspects of the ecology of the African elephant (*Loxodonta africana* Blumenbach, 1797) in Liwonde National Park, Malawi. M. Phil., Kent University (Canterbury).
- 2892 **LwcW** BHIMA, Roy. (1993). Elephant activity in the Liwonde National Park extension: is there any movement to and from Mongochi Forest Reserve? Nyala, 16(2):45-54.
- 2893 **LbcW** BHIMA, Roy. (1998). Elephant status and conflict with humans on the western bank of Liwonde National Park, Malawi. Pachyderm, 25:74-80 [in English with English and French abstracts]. **Annotation:** Study to assess status of elephants in new range of LNP in Malawi and relate it to elephant-human conflict [E/ECM].
- 2894 **LemW** BHIMA, Roy and BOTHMA, J. du P. (1997). Age structure of elephants in Liwonde National Park, Malawi. Koedoe, 40(2):1-8.
- 2895 **LewW** BHIMA, Roy and DUDLEY, C. O. (1997). The influence of the Shire river on Liwonde National Park, Malawi, with special reference to elephant movements. Koedoe, 40(2):9-18.
- 2896 **LdoW** BINEPAL, V. S., WARIRU, B. N., DAVIES, F. G., SOI, R., and OLUBAYO, R. (1992). An attempt to define the host range for African horse sickness virus (*Orbivirus*, Reoviridae) in east Africa, by a serological survey in some Equidae, Camelidae, Loxodontidae and Carnivore. Veterinary Microbiology, 31:19-23.
- 2897 **\*uhU** BINFORD, L. R. (1987). Were there elephant hunters at Torralba? In The evolution of human hunting (ed. M. N. Nitecki and D. V. Nitecki), pp. 47-105. Plenum Press, New York, 464 pp. **Annotation:** Prehistoric proboscideans, hunting. See Haynes 1991:357 and Reference no. 3462 [ECM].
- 2898 **LxcB** BISCHOF, Laura L. (1992). Genetics and elephant conservation. Endangered Species UPDATE (School Natural Resources, University of Michigan), 9(7/8):1-4, 8.
- 2899 **LcgW** BITA, Bukar Bulama. (1997). Current elephant conservation problems in Borno state, Nigeria. Pachyderm, 23:19-23. **Annotation:** Human-elephant conflict intensified from competition for food, water and space, there is serious problem with poaching. The EPA compiled a list of existing laws and regulations impinging on environment for review, is finishing an Action Plan for elephant conservation [E/ECM].
- 2900 **LbjC** BLACK, James, BROCKETT, Robin C., and MARKOWITZ, Timothy. (1992). A nocturnal behavioral study of three African elephants (*Loxodonta africana africana*) at Zoo Atlanta. The 13th International Elephant Workshop, Atlanta, 1992, pp. 113-114. Zoo Atlanta, Georgia, 151 pp.
- 2901 **LcwW** BLAKE, Stephen. (1995). Chasse aux elephants au Nord-Congo. CANOPEE: Bulletin trimestriel sur l'Environnement en Afrique Centrale, 4:4.
- 2902 **LjwW** BLAKE, Stephen and FAY, J. Michael. (1997). Seed production by *Gilbertiodendron dewevrei* in the Nouabale-Ndoki National Park, Congo, and its implications for large mammals. Journal of Tropical Ecology, 13(6):885-891.

- 2903 EdqC BLASKO, David R. (1997). Trimming away a cracked toenail. *Journal of the Elephant Managers Association*, 8(2):63-64.
- 2904 EvxW BLASHFORD-SNELL, John and LENSKA, Rula. (1996). *Mammoth Hunt*. Harper Collins, London, xvii + 254 pp.
- 2905 EceW BLOCK, Rich. (1995). Plight of the "forgotten" elephants. *Journal of the Elephant Managers Association*, 6(3):59-60.
- 2906 LmwW BLOM, A. and MASUNDA, T. (1989). Reconnaissance des elephants de forest au Zaire. Deuxieme partie. Rapport de Mission. WCI/IZCN/WWF, Kinshasa.
- 2907 LciW BLUESTONE, K. (1997). In search of common ground: African countries discuss the African elephant. *Species*, 28:14-15.
- 2908 \*vhU BOAZ, Noel T. (1987). Introduction. In *Neogene paleontology and geology of Sahabi* (ed. N. T. Boaz, A. El-Arnauti, A. W. Gaziry, J. de Heinzelin, and D. D. Boaz), pp. XI-XV. Alan R. Liss, New York.
- 2909 LicW BODED, Ze'ev. (1999). Elephants: a challenge renewed. *ActionLine*, Winter, 1999:8-13. **Annotation:** Poaching of elephants mostly in Africa but also in Asia has been renewed because of the permission to allow "...a limited and very strictly controlled experimental trade in ivory" from Zimbabwe, Namibia and Botswana to Japan". "Clever traffickers can obscure the distinction between 'legal' and 'illegal' ivory, and exploit a fuzzy situation" [E/JS].
- 2910 LgcW BODRY-SANDERS, Penelope. (1991). *Carl Akeley: Africa's collector, Africa's savior*. Paragon House, New York, 298 pp.
- 2911 \*hvU BOEUF, O. (1990). Originalité et importance de la faune Plio-Pléistocène de Chilhac (Haute-Loire, France). *Quartärpaläontologie*, 8:13-28.
- 2912 LihW BOHLEN, Janet Trowbridge. (1989). Africa's ivory wars: the elephant's survival depends on stopping poachers. *Defenders*, 64(2):10-20, 37-42. **Annotation:** Increased poaching throughout Africa during past decade [ID-H/M&DR].
- 2913 LucW BOND, Ivan. (1994). The importance of sport-hunted African elephants to CAMPFIRE in Zimbabwe. *TRAFFIC Bulletin*, 14(3):117-119. **Annotation:** Given the apparent importance of elephants to CAMPFIRE sport-hunting revenue, there is clear need to ensure sustainability of populations of those animals hunted. Current population of 76,000 animals includes about 7,300 on communal lands. Lease of sport hunting concessions forms the basis of income for most CAMPFIRE communities, and current income is heavily dependent on elephant hunting. Loss of this revenue could significantly reduce economic incentives for sustainable wildlife utilization in communal lands [ID-H/M&DR].
- 2914 LbeW BONE, C. and CHAMBERS, A. (1992). *African seasons: wildlife at the waterhole*. Perskor Publishers, Johannesburg, South Africa, 224 pp. **Annotation:** *Loxodonta africana*, behavior, ecology, MPNP [MPK].
- 2915 \*vwU BONFIGLIO, Laura and BURGIO, E. (1990). New stratigraphic and palaeoecological data on mammal-bearing Pleistocene deposits of Sicily. *Abstracts of IX Congress of Regional Committee of Mediterranean Neogene Stratigraphy, Barcelona*.
- 2916 \*vwU BONFIGLIO, Laura and INSACCO, Gianni. (1992). Palaeoenvironmental, paleontologic and stratigraphic significance of vertebrate remains in Pleistocene limnic and alluvial deposits from southeastern Sicily. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 95(3/4):195-208.
- 2917 \*vwU BONFIGLIO, Laura and KOTSAKIS, Tassos. (1987). Les associations de vertébrés du Pléistocène de Sicile: les peuplements successifs. *Documents et Travaux IGAL*, Paris, 11:263-266.
- 2918 LkiW BONNER, Raymond. (1993). *At the hand of man: peril and hope for Africa's wildlife*. Alfred A. Knopf, New York, 323 pp. Also, Simon & Schuster, London, 322 pp. **Annotation:** Review of historic and present day use of wildlife resources and wildlife conservation in Africa. Outlines exploitation of wildlife resources during colonial era. Focuses on individuals and conservation programs largely based on western wildlife management concepts [ID-H/M&DR].
- 2919 BicW BONNER, Raymond. (1993). Crying wolf over elephants. *The New York Times Magazine*, February 7:16-19, 30, 52-53. **Annotation:** How international wildlife community got stampeded into banning ivory [E/ECM].
- 2920 LicW BONNER, Raymond. (1994). Western conservation groups and the ivory ban wagon. In *Elephants and whales resources for whom?* (ed. Milton R. Freeman and Urs P. Kreuter), pp. 59-71. Gordon and Breach, Basel, 321 + xiii pp.
- 2921 LmcW BOOTH, V. R. (1990). The elephant population of Matabeleland North: 1960-1990. In *Management of Hwange ecosystem*. Workshop sponsored by USAID. 9-13th July 1990, Hwange Safari Lodge (ed. M. A. Jones), 15 pp. **Annotation:** Historical review of elephants in northern Matabeleland combined with review of specific population modeling estimates in HNP, the adjacent area known as Matetsi complex and northern Matabeleland in general from 1960 to 1990. Management policies reviewed noting presence of a program since 1965, sporadic illegal hunting and effect of war, which preceded independence. The estimated 1989 population in HNP was 23,500 and 4,000 in Matetsi complex [ID-H/M&DR].
- 2922 LicW BOOTH, V. R., MARTIN, Rowan B., and MURPHREE, Michael A. (1992). Raw ivory and elephant products in Zimbabwe: 1981-88. In *Elephant management in Zimbabwe* (2nd edition) (ed. R. B. Martin, Andrew Michael G. Conybeare), pp. 63-65. Dept of National Parks and Wild Life Management, Harare, Zimbabwe. **Annotation:** Estimated elephant population of 75,000 has grown substantially during this century as has human population. Management policy involves cooperation with landowners surrounding protected areas. Trade in elephant products, added to hunting revenue earned by Parks Estates, Forest Commission and District Councils, is powerful force for conservation. Even with present restrictions, revenue is about Z \$15 million per annum [ID-H/M&DR].
- 2923 LiuW BOOTH, William. (1989). Africa is becoming an elephant graveyard. *Science*, 243(4892):732. **Annotation:** "Africa has lost half its elephants; well-armed poachers and a ready market for ivory are responsible" [E/SLS].
- 2924 \*vwU BORODIN, A., KOSINTAEV, P., ZINUVIEV, E., TROFIMOVA, S., and NEKRASOV, A. (1998). Palaeoecological investigations of the landscape inhabited by the early middle Pleistocene mammoth *Archidiskodon trogontherii* from Chembakchino, western Siberia. In *The dawning of the Quaternary*. Proceedings of the SEQS-Euroman symposium 1996, no. 60 (ed. Th. van Kolfschoten and P. L. Gibbard), pp. 343-362. *Mededelingen Nederlands Instituut voor Toegepaste Geowetenschappen TNO*. **Annotation:** Almost complete skeleton of *A. trogontherii* with molars was found in situ in the deposits of the Sameikian Suit in the Irtysh River [E/ECM].
- 2925 LrbC BORRAGAN, Santiago. (1998). Birth and hand-rearing of an African elephant calf. *Journal of the Elephant Managers Association*, 9(2):99-100. **Annotation:** "Pepe", a male African calf born at Parque de la Naturaleza, Cabarceno, Spain, on March 25, 1998. His mother unable to feed him. Decision made to take him away from her 12 hours after birth. His recovery was quick and Pepe was returned to his mother the day after birth but the cow began to hit the calf with her feet and trunk, so he was separated again and hand-reared. He

- lives with a young sheep, so he is never alone, they get along very well [E/ECM].
- 2926 LmcW BOSHE, John. (1989). Counting elephants will not save them. *Swara*, 12(3):13-14. **Annotation:** Change in emphasis of elephant research in recent decades; suggests emphasis on counting populations would be better redirected to anti-poaching efforts [ID-H/M&DR].
- 2927 LgwW BOSMAN, Paul and HALL-MARTIN, Anthony [J.]. (1989). *Elephants of Africa* (reprint edition). Safari Press, Long Beach, California, 175 pp. A reprint edition of the 1986 book by the same authors, published by C. Struik (Pty) Ltd, Cape Town, 120 pp. **Annotation:** Portions of cover of the 1986 edition contain elephant skin. Outstanding pastel paintings (by Paul Bosman) and descriptions (by Anthony Hall-Martin) of elephants in major habitats throughout Africa. Mali, Senegal, Ivory Coast, Gabon, Zaire, Kenya, Tanzania, Malawi, Zambia, Zimbabwe, Botswana, Namibia, Mozambique, and South Africa. Reviewed by Y. A. Andrews, Reference no. 2537 [MPK].
- 2928 LgiW BOSMAN, Paul and HALL-MARTIN, Anthony [J.]. (1994). *The Magnificent Seven and the other great tuskers of the Kruger National Park*. Human & Rousseau, Cape Town, South Africa, 70 pp. **Annotation:** Paintings and sketches focused on large tusked males in KNP over last few decades. Outlines life histories of the original seven large tusked bulls in KNP, provides topical information on habitat and dietary preferences, physiological data, tusk records, growth and wear, elephant census and culling procedures as well as poaching. Notes other individuals that may keep up record the Park has for large tuskers [ID-H/M&DR, MPK].
- 2929 LgiB BOSSEN, Birgitt. (1998). Research on African elephants *Loxodonta africana* (Blumenbach, 1797): a bibliography. *African Journal of Ecology*, 36(4):371-376.
- 2930 LjpW BOWELL, R. J., WARREN, A., and REDMOND, Ian M. (1996). Formation of cave salts and utilization by elephants in the Mount Elgon region, Kenya. In *Environmental Geochemistry and Health*, Geological Society Special Publication no. 113 (ed. J. D. Appleton, R. Fuge, and G. J. H. McCall), pp. 63-79. The Geological Society, London. **Annotation:** Deposits of calcium-sodium rich alkaline rocks show quarrying by elephants on surface, but most activity takes place in underground caves. Sodium-calcium-magnesium-rich rocks are leached by groundwater and react with animal excreta in humid environment of cave floor to form series of secondary carbonate, sulfate, halide, nitrate and phosphorus minerals by evaporation of cave waters. Some salts precipitated on cave walls by direct evaporation. Inside caves, elephants tusk and ingest salt-enriched rock fragments. Secondary salts in caves area are potentially important mineral supplement for wildlife nutrition [ID-H/M&DR].
- 2931 LwkW BOWERMASTER, J. (1993). *The adventures and misadventures of Peter Beard in Africa*. Little, Brown & Co., Boston, 199 pp. **Annotation:** *Loxodonta africana*, culling, poaching, mortality, habitat-alteration, TNP, ANP [MPK].
- 2932 LmcW BOWLER, M. (1994). The aerial census of elephant and other large mammals in north-west Matabeleland, Zimbabwe, 1994. *Dept National Parks and Wild Life Management*, Harare, Zimbabwe, 39 pp.
- 2933 LmcW BOWLER, M. (1995). The aerial census of elephant and other large mammals in north-west Matabeleland, Zambezi Valley and GNP, August-October 1993, including data on pans in Hwange National Park, baobabs in the Sapi Safari Area and ostriches. *Dept National Parks and Wild Life Management*, Harare, Zimbabwe, 45 pp. **Annotation:** Estimated 38,864 pans in HNP. In September, after heavy rain, they censused pans and found 5600± with water + 33,100± without water, i.e., nearly 39,000 pans in HNP, or approximately 2.8 per square km {Can get paper from Maggie Taylor, DNPWLM Library, Harare} [MPK]. Survey was first in Zambezi Valley since 1989 and in Gonarzhou, first since 1991. In HNP, there appears to be a significant decrease in numbers of elephant, 22,548 as compared to 1992 estimate of 35,793. No significant changes in elephant populations in other areas. Estimated populations included Zambezi Valley 14,361, GNP 5,241 and Matabeleland North outside HNP - Matetsi 4,248, forests 815 and communal lands 230, giving a total estimate of 47,443 for area [ID-H/M&DR].
- 2934 LmcW BOWLER, M. (1995). The aerial census of elephant and other large mammals in north-west Matabeleland Zimbabwe, October 1992. *Dept National Parks and Wild Life Management*, Harare, Zimbabwe, 22 pp. **Annotation:** October 1992 aerial census in Matabeleland North yielded elephant populations of 35,793 for HNP, 4,054 for Matetsi, 879 for forest areas and 424 for communal lands [ID-H/M&DR].
- 2935 \*vhU BOWN, Thomas M. and KRAUS, Mary J. (1988). Geology and paleoenvironment of the Oligocene Jebel Qatrani Formation and adjacent rocks, Fayûm Depression, Egypt. *U. S. Geological Survey Professional Paper*, 1452:1-60, and 4 pages in Arabic.
- 2936 BhvW BOYCE, M. S. (ed.). (1988). *Evolution of life histories of mammals: theory and pattern*. Yale University Press, New Haven, xvi, 373 pp.
- 2937 \*vgU BRABER, Francien I., MOL, Dick, and DE VOS, John. (1999). On mastodon remains from the Netherlands: an overview. *Deinsea*, 7:55-65. **Annotation:** See Reference no. 4884 for details about "Deinsea 7" [ECM/JS].
- 2938 BqtC BRADFORD, John. (1988). Construction of bull elephant crush at Dickerson Park Zoo. In *Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988*, pp. 58-60. Jacksonville Zoological Park, Florida, 145 pp.
- 2939 LicW BRADSTOCK, Alastair. (1990). Elephant saviours in ivory towers. *Geographical Magazine*, 62(12):14-17.
- 2940 EapW BRAHMACHARY, R. L. (1995). Seed dispersal through the elephant. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 389-393. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 2941 LdaB BRAIN, C. and FOX, V. E. B. (1994). Suspected cardiac glycoside poisoning in elephants. *Journal of the South African Veterinary Association*, 65(4):173-174.
- 2942 BqtC BRANGAN, J. M. (1988). Elephant management at the Virginia Zoological Park. *AAZPA Regional Conference Proceedings*, 1988:670-671.
- 2943 LroC BRANNIAN, J. D., GRIFFEN, F., and TERRANOVA, P. F. (1989). Urinary androstenedione and luteinizing hormone concentrations during musth in a mature African elephant. *Zoo Biology*, 8(2):165-170.
- 2944 LroC BRANNIAN, J. D., GRIFFEN, F., PAKOFF, H., TERRANOVA, P. F. (1988). Short and long phases of progesterone secretion during the oestrous cycle of the African elephant (*Loxodonta africana*). *Journal of Reproduction and Fertility*, 84(1):357-365. **Annotation:** See Reference nos. 4728, 5766 [MPK].
- 2945 LroC BRANNIAN, J. D., TERRANOVA, P. F., and GRIFFIN, F. (1989). Long and short estrous cycles in the African elephant: an endocrine profile. *AAZPA Regional Conference Proceedings*, 1989:16-18.
- 2946 \*avU BRICKNELL, I. (1987). Palaeopathology of Pleistocene proboscideans in Britain. *Modern Geology*, 11:295-309.
- 2947 LdiC BRIGGS, M., SCHMIDT, M., BLACK, D., ROACH, R., OPDAHL, J., STARK, G., OWENS, D., and DRIVER, M. (1988). Extraction of an infected



- tusk in an adult African elephant. Journal of American Veterinary Medical Association, 192(10):1455-1456. **Annotation:** See Reference no. 3117 [MPK].
- 2948 BcwB BROAD, Steven, LOCHEN, Kim, THOMSEN, Jorgen B. (compilers). (1992). Eighth meeting of the Conference of the Parties to CITES. TRAFFIC Bulletin, 13(1):9-22.
- 2949 LbqC BROCKETT, R. C., STOINSKI, T. S., BLACK, J., MARKOWITZ, T., and MAPLE, T. L. (1999). Nocturnal behavior in a group of female African elephants. Zoo Biology, 18:101-109. **Annotation:** Suggest that the use of no restraint is an effective strategy for this elephant group, and that zoos could permit increased activity and social interaction by extending the hours when the elephants are unchained [E/JS].
- 2950 BgjB BRODY, J. (1993). Elephants. Blake Books, San Luis Obispo, California, 46 pp.
- 2951 LuwW BRODY, J. (1994). Border path is deadly for trio of elephants. New York Times (Science:20 December):page not provided. **Annotation:** Three bulls from ANP wandered into Tanzania and were shot by 'hunters'. See Reference no. 5745 [MPK].
- 2952 LroB BRONSON, F. H. (1989). Mammalian reproductive biology. University of Chicago Press, 325 pp. **Annotation:** Reviewed in "Journal of Mammalogy", 71(3):481. "The African elephant..., a non seasonal breeder that shows no seasonal change in blood levels of the gonadotropins" (from McNeilly *et al.* 1983; Reference no. 2067) [MPK].
- 2953 \*wvU BROOKE, Michael. (1988). Thoroughly modern mammoths. BBC Wildlife, 6(5):242-243.
- 2954 BiuW BROOKES, Stephen. (1988). Ivory proves elephants' downfall. Insight (November 21):36-37.
- 2955 LiuW BROOKES, Stephen. (1989). Means of defense is proving to be elephant's ruin. Insight, 5(46):34-38, 64.
- 2956 \*awU BROOS, J. (1995). De vondst van de maand, Een sesambeentje van de wolharige mammoet *Mammuthus primigenius*. Cranium, 12(1):46.
- 2957 LicW BROWN, Gardner, Jr. (1989). The viewing value of elephants. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 4.5. The Ivory Trade Review Group, Oxford. **Annotation:** Premise is one way to stem poaching and illegal trade in ivory is to demonstrate value of live elephants to tourism. Looks at economic benefits in two forms: direct value in money tourists pay to see animals inclusive of employment, profits within safari operations, and value of consumable items tourists buy. Results from Tour Operators Survey are presented in Appendix A while proposed questionnaire for park visitors in Kenya comprises Appendix B [ID-H/M&DR].
- 2958 LucW BROWN, Gardner and HENRY, Wes. (1989). The economic value of elephants. London, IIED (International Institute for Environment and Development). LEEC Paper, 89-12, 18 pp. **Annotation:** Questionnaire based study to assess effect further poaching might have on monetary value of viewing and photographing elephants from tourist and tour operators viewpoint in Kenya. Tourists indicated that viewing and photographing of elephants account for 13% of safari experience. They would pay an extra 100 dollars each for viewing of elephants if such money went directly for elephant conservation. 31% of tourists said they would no longer come or recommend destination if elephant population declined by another 50% [ID-H/M&DR].
- 2959 BroC BROWN, Janine. (1998). The need for routine elephant blood draws. Animal Keepers' Forum, 25(9):357. **Annotation:** To achieve a self-sustaining captive population of elephants, zoos need to become active in developing breeding programs. The ability to assess the reproductive status of elephants can be accomplished by measuring the concentration of progesterone or testosterone in blood samples collected from an ear vein on a weekly or bi-weekly basis [E/ECM].
- 2960 BrdC BROWN, Janine L. (1999). Difficulties associated with diagnosis and treatment of ovarian dysfunction in elephants — the flatliner problem. The Elephant Managers Association, 10(1):55-61. **Annotation:** Many female elephants of reproductive age are not cycling normally. They are termed "flatliners" because serum progesterone remains at stable, baseline concentrations (an indicator of ovarian inactivity) [E/ECM].
- 2961 BroC BROWN, Janine L. and LEHNHARDT, John. (1997). Secretory patterns of serum prolactin in Asian (*Elephas maximus*) and African (*Loxodonta africana*) elephants during different reproductive states: comparison with concentrations in a noncycling African elephant. Zoo Biology, 16(2):149-159.
- 2962 BorB BROWN, Janine L. and WINGATE, Lisa. (1994). Non-invasive evaluation of adrenal and androgen status in bull elephants. The Elephant Managers Association, 5(3):16-17. **Annotation:** Endocrinology, urine, defecation, blood, musth [MPK].
- 2963 BroC BROWN, Janine L., BUSH, Mitchell, SIMMONS, L. G., MONTFORD, S. L., and WILDT, D. E. (1994). Fertility regulation in female elephants: applicability and potential problems of using steroidal hormones for contraception. Paper presented at the NCCR [National Center for Research in Reproduction] Elephant Reproduction Symposium, 3-9 May 1992, Nairobi. **Annotation:** See Reference nos. 2995, 4131, 4777, 4786, 5098, 5527 [MPK].
- 2964 EroC BROWN, Janine L., CITTINO, S. B., BUSH, Mitchell, LEHNHARDT, J., and PHILLIPS, L. G. (1991). Cyclic patterns of luteinizing hormone, follicle-stimulating hormone, inhibin, and progesterone secretion in the Asian elephant (*Elephas maximus*). Journal of Zoo and Wildlife Medicine, 22(1):49-57. **Annotation:** Captivity, reproduction, endocrinology, cf. Reference no. 4396 [MPK].
- 2965 LrpW BROWN, Janine L., BUSH, Mitchell, WILDT, D. E., RAATH, Jacobus R., DE VOS, V., and HOWARD, J. G. (1993). Effects of GnRH analogues on pituitary-testicular function in free-ranging African elephants (*Loxodonta africana*). Journal of Reproduction and Fertility, 99(2):627-634.
- 2966 LaoW BROWN, Janine L., SCHOENEMANN, Herman M., RAATH, Jacobus P., DE VOS, Valerius, and BUSH, Mitchell. (1994). Serum concentrations of cationic minerals in free-ranging elephants (*Loxodonta africana*) in the Kruger National Park. Journal of Zoo and Wildlife Medicine, 25(4):495-499.
- 2967 LuiW BROWN, M. (1993). Hunter away: the life and times of Arthur Henry Neumann 1850-1907. Monty Brown, London, 351 pp.
- 2968 BapB BROWN, R. E., BUTLER, J. P., GODLESKI, J. J., and LORING, S. H. (1997). The elephant's respiratory system: adaptations to gravitational stress. Respiration Physiology, 109(2):177-194.
- 2969 LcwW BRUGIERE, David. (1995). Grande faune et parcs nationaux du nord-Cameroun. Bois et forêts des tropiques, 244:43-54.
- 2970 LcmW BRUGIERE, David. (1996). State of wildlife and national parks in northern Cameroun [Situation de la grande faune et des parcs nationaux au nord-Cameroun]. Nature et Faune, 12(1):2-13. **Annotation:** Northern Cameroun has significant concentration of large mammals officially protected. Faro National Park, the largest, contains about 60 elephants, Benoue Park zone about 1,600. Estimated elephant

- population in Cameroun in 1962 was 250 and in 1988 stands at 800. Some elephants migrate between KalNP and WNP. In spite of bush meat hunting and land use conflict, WNP is still one of the best locations to observe wildlife in West Africa, especially elephants, often seen in herds of more than 100 [ID-H/M&DR].
- 2971 LaoB BRUWER, Erna E. and VAN ASWEGEN, G. (1989). The mucosa of the stomach of the African elephant (*Loxodonta africana*): a light microscopical and immunocytochemical investigation [Abstract]. *South African Journal of Science*, 85(7):469-470.
- 2972 LcjW BRYDEN, Bruce. (1996). Law enforcement within protected areas. *Pachyderm*, 22:81.
- 2973 LgjW BRYDEN, H. B. and DE VOS, V. (1994). A scientific bibliography on the national parks of South Africa. *Koedoe*, 37(Supplement):1-124. **Annotation:** A compendium containing invaluable resources for articles, books, and other literature on the national parks in South Africa. There are 280 citations given for "Order Proboscidea, Family Elephantidae, African elephant (*Loxodonta africana*) [JS].
- 2974 \*ahU BUCHNER, A. P. and ROBERTS, L. J. (1990). Reevaluation of an implement of 'elephant bone' from Manitoba. *American Antiquity*, 55(3):605-607.
- 2975 EqbC BUCKLEY, Carol. (1987-1988). A day with Tarra. *Hasti Newsletter*, 6:1, 6. **Annotation:** Trainer Carol Buckley describes a day with her elephant in Los Padres National Forest, California [E/JLP].
- 2976 ErqC BUCKLEY, Carol. (1994). Reproduction. *The Elephant Managers Association Newsletter*, 5(2):17.
- 2977 LkcW BUDIANSKY, Stephen. (1996). Killing with kindness. *U.S. News & World Report*, 121(21):48-49. **Annotation:** "Preserving wildlife has been a moral and practical disaster for the developing world. The paradoxical solution: use it or lose it." [E/ECM].
- 2978 \*vvU BUFFETAUT, Eric, HELMCKE-INGAVAT, Rucha, JAEGER, J.-J., JONGKANJANASOONTORN, Yaowalak, and SUTEETHORN, Varavudh. (1988). Mastodon remains from the Mae Teep Basin (northern Thailand) and their biostratigraphic significance. *Comptes Rendus de l'Académie des Sciences, Paris*, t. 306, Série II, 249-254.
- 2979 LciW BULTE, Erwin H. and VAN KOOTEN, G. Cornelis. (1999). Economic efficiency, resource conservation and the ivory trade ban. *Ecological Economics*, 28(2):171-181.
- 2980 BiyW BURDETTE, N. (1989). Ivory-handle knives: on the endangered list? *Blade Magazine*, 16(6):58. **Annotation:** See Reference no. 4915 [MPK].
- 2981 LbrW BURGER, Joanna and GOCHFELD, Michael. (1994). Vigilance in African mammals: differences among mothers, other females, and males. *Behaviour*, 131(3/4):153-169.
- 2982 LicW BURGESS, J. C. (1989). Economics of controlling trade in endangered species: the African elephant. London, IIED (International Institute for Environment and Development). **Annotation:** Examines economics of controlling trade in endangered species, e.g., author uses ivory trade to determine future of African elephants including economics of decline in populations, factors determining decline, international ivory trade, economic incentives for conservation [ID-H/M&DR].
- 2983 \*vhU BURGIO, E. and CANI, M. (1989). Sul ritrovamento di elefanti fossili ad Alcamo (TP). *Il Naturalista Siciliano*, Palermo, 4, 12(1988):87-97.
- 2984 BocB BURK, Nikki E., MESSER, Lori A., ERNST, Catherine W., ROTHCHILD, and Max F. (1998). Identification of sequence tagged sites in the Asian and African elephant. *Animal Biotechnology*, 9(2):155-160.
- 2985 LciW BURNS, William C. (1989). *The Convention on International Trade in Endangered Species of Fauna and Flora: the need for a new approach to conserve African elephants*. Pacific Center for International Studies, Madison (Wisconsin), 16 pp.
- 2986 LqtC BURSTEIN, S. M. (1989). *Agatarchides of Cnidus*. Hakluyt Society, Cambridge, pages not provided.
- 2987 LicW BURTON, John A. (1994). Disposal of confiscated ivory. *Oryx*, 28(4):219-221. **Annotation:** Suggests that ivory is a commodity in its own right and it would be useful to control its trade to assist in cost of conservation efforts of range states, but set prices to make it uneconomical for poaching and subsequent illegal trade to exist [ID-H/M&DR].
- 2988 LcuW BURTON, M. P. (1994). Alternative projections of decline of the African elephant. *Biological Conservation*, 70(2):183-188. **Annotation:** That elephant populations will become extinct in the near future is inevitable consequence of the assumption that the level of effort used to hunt elephants increases exponentially. An alternative model links level of effort to theory of open access exploitation of resources results in elephant numbers declining significantly, but not to extinction. Divergence of results shows it is vital to have good understanding of economic forces underlying exploitation of elephants to make projections [ID-H/M&DR].
- 2989 LpoW BUSH, Mitchell, RAATH, Jacobus P., DE VOS, Valerius, STOSKOPF, Michael K. (1996). Serum oxytetracycline levels in free-ranging male African elephants (*Loxodonta africana*) injected with a long-acting formulation. *Journal of Zoo and Wildlife Medicine*, 27(3):382-385.
- 2990 LjwW BUSS, Irvan O. (1990). *Elephant life: fifteen years of high population density*. Iowa State University Press, Ames, xxvi +191 pp. **Annotation:** Research on elephants in two national parks in Uganda is presented under such topics as behavior, physiology, population, reproduction and food between 1957 and 1964. Final chapter describes destruction of Uganda's elephants by poaching in KFNPP with the population plummeting from 14,000 to 6,000 from 1973 to 1974 and to 2,200 by 1975 from killing by Amin's soldiers; reviewed in "Circus Report", January 28, 1991, No. 4, page 19 [ID-H/M&DR].
- 2991 LgwW BUTCHART, D. (1998). Africa's Amazon: Gabon's Réserve de la Lopé. *Africa - Environment & Wildlife*, 6(1):38-43. **Annotation:** *Loxodonta a. cyclotis* [MPK].
- 2992 LapU BUTCHART, D. and MARSHALL, J. (1988). You scratch my back...I'll wet yours. *African Wildlife*, 42(6):328-329. **Annotation:** *Loxodonta africana*, water, thermoregulation.
- 2993 LcuW BUTLER, Victoria. (1995). Is this the way to save Africa's wildlife? *International Wildlife*, 25(2):38-43. **Annotation:** CAMPFIRE program in Zimbabwe [MPK].
- 2994 LewW BUTLER, Victoria. (1995). Elephants by the truckload. *International Wildlife*, 25(4):30-35. **Annotation:** Photographs by Michael Freeman. Southern Africa is establishing new wildlife enclaves by relocating surplus animals. "For [Clem] Coetzee, who has culled more elephants than he likes to think about, relocation offers a chance to delight in resettling elephants in areas where they have not existed for decades" [E/ECM].
- 2995 LrpW BUTLER, Victoria. (1998). Elephants: trimming the herd. *BioScience*, 48(2):76-81. **Annotation:** South African biologists experiment with new birth control methods to reduce elephant populations humanely. See Reference nos. 2963, 4131, 4777, 4786, 5098, 5527 [E/ECM,

- p. 76].
- 2996 LmwW BUTYNSKI, T. (1996). Mt. Tshiaberimu gorilla census. East African Natural History Society Bulletin, 26(1):2-4. **Annotation:** Estimated 30 elephants inhabit Mt. Tshiaberimu sector of VNP. During 1995 gorilla survey, signs of elephant were abundant throughout the area between 2,600 and 3,100 meters in altitude [ID-H/M&DR].
- 2997 \*avU BYERS, Johnny. (1997). Chaos and order. TCAS Benchmark (Tarrant County Archeological Society), 11(4):3-4. **Annotation:** Partial excavation of Carr mammoth in Texas, March 15-22, 1997. Workers cast and remove mandible and scapula, expose the maxilla, tusks, and ribs. All were covered with protective coat of plaster and left in place. Future goals include finding the bottom of the bone bed and removing all of the bone that is in danger of being lost [E/ECM].
- 2998 EjcW BYRNE, Peter. (1990). Tula Hatti: the last great elephant. Faber and Faber, Boston, 240 pp. **Annotation:** Large male *Elephas* in southwest Nepal; also on video-tape [MPK].
- 2999 LadC CAFFEE, H. Hollis. (1989). Reconstruction of the distal trunk of an African elephant. Plastic and Reconstructive Surgery, 83(6):1049-1051.
- 3000 BhiB CALDWELL, John R. (1991). The recent history of the ivory trade. In Proceedings of The Fifth Elephant Workshop, hosted by Windsor Safari Park, Windsor, United Kingdom, 20 September 1991, pp. 6-11 + 8 unnumbered pp. of figures. **Annotation:** Average tusk weight dropped from over 10 kg in 1979 to 6 kg in 1982 and to 4.5 kg by 1986, indicating that more elephants were being killed to supply a trade that was rapidly increasing. In the early 1980's, the main routes of ivory out of Africa were via Sudan and southern Africa to Hong Kong and Europe and from Burundi via Belgium and France. The writer describes the loopholes in CITES and specific country legislation that are exploited by ivory traders to circumvent controls and effect supply of, and demand on, price of ivory [ID-H/M&DR].
- 3001 BiwW CALDWELL, John R. and LUXMOORE, R. A. (1990). Recent changes in world ivory trade. Traffic Bulletin, 11(4):50-58. **Annotation:** Recent trend in ivory trade including legislative controls variation in pattern and volume of trade, stock, prices, illegal trade and changes in tusk size [ID-H/M&DR].
- 3002 LrcW CALEF, G. W. (1988). Maximum rate of increase in the African elephant. African Journal of Ecology, 26(4):323-327. **Annotation:** Reproduction, ecology, CNP [MPK].
- 3003 \*ewU CALOI, Lucia, KOTSAKIS, TASSOS, PALOMBO, Maria R., and PETRONIO, Carmelo. (1989). The dwarf elephants of Mediterranean islands. Abstracts of Papers and Posters Fifth International Theriological Congress, Rome, 22-29 August 1989, Volume I:141-142.
- 3004 \*ewU CALOI, Lucia and PALOMBO, Maria R. (1989). Oligotopia nelle mammalofaune insulari. In Atti 3<sup>o</sup> Simposio di Ecologia e Paleologia delle Comunita Bentoniche, Catania-Taormina, 12-16 ottobre 1985:259-283.
- 3005 \*ewU CALOI, Lucia and PALOMBO, Maria R. (1992). Dwarf elephants of the past. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 60-63. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** *Mammuthus*, size, swimming, islands, evolution, Channel Islands (California, USA), Mediterranean, Sicily, Malta, Cyprus [MPK].
- 3006 \*ewU CALOI, Lucia, KOTSAKIS, TASSOS, and PALOMBO, Maria R. (1988). La fauna a vertebrati terrestri del Pleistocene della isole del Mediterraneo. Geologica Romana, Roma, 25(1986):235-256.
- 3007 \*ewU CALOI, Lucia, KOTSAKIS, TASSOS, PALOMBO, Maria R., and PETRONIO, Carmelo. (1996). The Pleistocene dwarf elephants of Mediterranean islands. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 234-239. Oxford University Press, 472 pp. **Annotation:** Sicily, Malta, Sardinia, Crete, Cyclades, Dodecanese, Cyprus [MPK].
- 3008 LiuW CAMERON, S. (1993). Natural Enemies. Turner Publishers, Inc., Atlanta, 251 pp. **Annotation:** Novel of scientists vs. ivory-poachers in Kenya. Reviewed/excerpted: "Buzzworm", 5(4):45-51, 78, 84 (1993) [MPK].
- 3009 LuvW CAMPBELL, A. C. (1990). History of elephants in Botswana. In The Future of Botswana's Elephants (ed. P. Hancock), pp. 5-15. Proceedings of Kalahari Conservation Society Symposium on Elephants (Gaborone, Botswana, 10 November 1990), 96 pp. **Annotation:** Decline of elephants throughout 19th century. By 1890, populations were probably at all time low. By 1900 foreigners had to obtain license to hunt elephants and Botswana required permission from kgosi or chief. Present century has seen re-establishment, but probably not significant re-expansion, of elephants in areas formerly cleared [ID-H/M&DR].
- 3010 LbcW CAMPBELL, B. M., BUTLER, J. R. A., MAPAURE, I., VERMEULEN, S. J., and MASHOVE, P. (1996). Elephant damage and safari hunting in *Pterocarpus angolensis* woodland in northwestern Matabeleland, Zimbabwe. African Journal of Ecology, 34(4):380-388.
- 3011 LejW CAMPBELL, David G. (1991). Gap formation in tropical forest canopy by elephants, Oveng, Gabon, Central Africa. Biotropica, 23(2):195-196. **Annotation:** Study tests hypothesis that forest elephants' (*Loxodonta africana cyclotis* / *Loxodonta cyclotis*) trails create light gaps (i.e., sunrays penetrate to forest floor and help establish plant species in areas in which they may not exist). Data indicate that elephants are gap builders and, given antiquity of trails, gap maintainers in tropical forest in Oveng area and almost certainly elsewhere. Elephants contribute to heterogeneity of forests, therefore may enhance species richness. Keystone species role of elephants demonstrated [ID-H/M&DR].
- 3012 LmwW CAMPBELL, Kenneth L. I. (1990). Aerial surveys, wet and dry seasons, 1990. Conservation Monitoring News, 2:5. **Annotation:** Compares 1990 wet and dry season aerial survey large mammal counts (Greater RNP) with those for elephant of 1987 and 1988. Estimate for March wet season was 17,341, for September dry season, 12,420. Lower than previous skeleton count, which because of vegetation can only be carried out during dry season flights, suggests poaching has slackened. 1990 estimate of 2,424 skeletons compared favorably against 1987 estimate of 8,849 [ID-H/M&DR].
- 3013 LcwW CAMPBELL, Kenneth L. I. (1991). Elephant trends. Conservation Monitoring News, 4:5.
- 3014 LwcW CAMPBELL, Kenneth L. I. and BORNER, Markus. (1995). Population trends and distribution of Serengeti herbivores: Implications for management. In Serengeti II: Dynamics, management and conservation of an ecosystem (ed. A. R. E. Sinclair and Peter Arcese), pp. 177-145. University of Chicago Press, xii + 665 pp.
- 3015 LcwW CAMPBELL, Kenneth L. I., HUIH, Sally A., and OLE KUWAI, J. L. (1993). Tanzania wildlife conservation monitoring [Elephant]. In Serengeti Wildlife Research Centre scientific report: 1990-1992. SWRC, Arusha, pp. 61-66; tables; figs.
- 3016 LcwW CAMPBELL, Virginia. (1998). Elephants in the balance: Conserving Africa's elephants. WWF, Gland, 32 pp.

- 3017 EfgB CANNON, Teresa and DAVIS, Peter. (1995). Aliya: stories of the elephants of Sri Lanka. Arivata Press, Melbourne, 179 pp. **Annotation:** Fills important gap in literature on Sri Lanka and accessible writing on Asian elephant. Informative, entertaining, visually stunning account of Sri Lankan elephants. Reviewed (1996) in "Wildlife Watch", 4(2):2 [MPK].
- 3018 \*ewU CAPASSO BARBATO, L. (1992). Observations on the biostratigraphy of Cretan Pleistocene vertebrates. Il Quaternario, Napoli, 5(1):67-76.
- 3019 \*ewU CAPASSO BARBATO, L., MINIERI, M. R., and PETRONIO, Carmelo. (1989). Resti di mammiferi endemici nelle grotte del Faraglione di Favignana (Egadi, Trapani). Il Naturalista Siciliano, Palermo, 4, 12(1988):99-105.
- 3020 LiuW CAPSTICK, Peter Hathaway. (1988). The last ivory hunter: the saga of Wally Johnson. St. Martin's Press, New York, xix + 220 pp. **Annotation:** Wally Johnson spent half a century in Mozambique hunting ivory. He's the last one able to tell his story [E/BDA].
- 3021 LiuW CAPSTICK, Peter Hathaway. (1991). Sands of silence: on safari in Namibia. St. Martin's Press, New York, 214 pp. **Annotation:** Colorfully illustrated (photographs by M. Phil Kahl), "reports on Bushmen's culture, their political persecution," a large bull elephant, and how "ethical" hunting may be a tool for game protection and management (via revenues obtained). "Only if elephants are worth more to the people who share their territory with them than a poacher will receive for their ivory, will elephants and rhinos be truly safe" [JS].
- 3022 LuiW CAPSTICK, Peter Hathaway. (1994). A man called lion: the life and times of John "Pondoro" Taylor. Safari Press, Long Beach (California), 260 pp.
- 3023 LiuW CAPSTICK, Peter Hathaway. (1998). Warrior: the legend of Colonel Richard Meinertzhagen. St. Martin's Press, New York, 295 pp. **Annotation:** *Loxodonta africana*; hunting, conservation, elephant mentioned pp. 99-100, 105-6, 107, 115, 143, 214 [MPK].
- 3024 \*ewU CARRANZA-CASTAÑEDA, O. and MILLER, W. E. (1987). Rediscovered type specimens and other important published Pleistocene mammalian fossils from central Mexico. Journal of Vertebrate Paleontology, 7(3):335-341.
- 3025 LcwW CARR-HARTLEY, Pat. (1989). The situation in northern Botswana. Kalahari Conservation Society Newsletter, 23:1, 12.
- 3026 +vgB CARROLL, Richard L. (1988). Vertebrate paleontology and evolution. W. H. Freeman and Company, New York, 698 pp. **Annotation:** Almost update to Romer (1966). A cladogram of the vertebrates with synapomorphies is on p. 11. Chapter on Proboscidea, pp. 536-40, includes phylograms of Proboscidea and Desmostylia, and of Proboscidea [JS].
- 3027 LgmW CARROLL, Richard W. (1988). Elephants of the Dzanga-Sangha Dense Forest of south-western Central African Republic. Pachyderm, 10:12-15. **Annotation:** Contains highest known population density of elephants remaining in dense forest zone of Africa. *Loxodonta africana africana* and *L. a. cyclotis*, as well as an intergrade between the two exist in the area. Elephant population density in sub-blocks as determined by dung counts is presented. Large scale poaching, availability of water, vegetation type, and human land use may account for different density [ID-H/M&DR].
- 3028 LneW CARROLL, Richard W. (1996). Elephants. In Feeding ecology of the western lowland gorilla (*Gorilla gorilla gorilla*) in the Central African Republic. D. Phil. Thesis, Yale University, pp. 76-78.
- 3029 BqtC CARTER, S. (1989). Occupational stress and elephant management. Proceedings of the Annual Elephant Workshop, 10:33-37.
- 3030 \*hvU CASAMIQUELA, Rodolfo M. and DILLEHAY, Thomas D. (1989). Vertebrate and invertebrate faunal analysis. In Monte Verde: a late Pleistocene settlement in Chile. Volume I, Palaeoenvironment and site context (ed. T. D. Dillehay), pp. 205-210. Smithsonian Institution Press, Washington, D.C., 306 pp.
- 3031 \*evU CASAMIQUELA, Rodolfo M., SHOSHANI, Jeheskel, and DILLEHAY, Thomas D. (1996). South American proboscideans: general introduction and reflections on Pleistocene extinctions. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 316-320. Oxford University Press, 472 pp.
- 3032 LcuW CATER, Nick. (1989). Ivory: the ban with the but. BBC Wildlife, 7(12):834.
- 3033 LcwW CATER, Nick. (1989). Preserving the pachyderm. Africa Report, 34(6):45-46, 48-49. **Annotation:** "Is strict preservation through banning the ivory trade or conservation through controlled culls the best way to save the African elephant? The two schools have locked tusks in a battle over the new CITES ban, which pits the southern African states against the rest of the world" [E/ECM].
- 3034 LicW CAUGHLEY, Graeme. (1988). A projection of ivory production and its implication for the conservation of African elephants. CSIRO Division of Wildlife and Ecology, Australia. Manuscript on file at CSIRO's office. Cover page + 21 pp. **Annotation:** Predicts elephants will become extinct in East Africa in 5 years and in all Africa in 20 years. Population decline among African elephants due to ivory being a valuable commodity on world market suggests elephants, within a few years, will be found only in high security areas. Says lead time is very short and, practical conservation measures must be effected quickly [ID-H/M&DR].
- 3035 LicW CAUGHLEY, Graeme. (1993). Elephants and economics. Conservation Biology, 7(4):943-945. **Annotation:** Elephant focused example is inappropriate because elephant usage in Zimbabwe CAMPFIRE program is far from private ownership of resource, nor do any southern African countries fully experience private ownership of such resources [ID-H/M&DR].
- 3036 LiuW CAUGHLEY, Graeme, DUBLIN, Holly, and PARKER, Ian S. C. (1990). Projected decline of the African elephant. Biological Conservation, 54(2):157-164. **Annotation:** Volume of ivory coming onto world market suggests that African elephant populations have declined progressively since at least 1950, and rate of decline is accelerating. Process is well-advanced in East Africa where few elephants are predicted to survive beyond 1995 outside high-security areas [ID-H/M&DR]. See Reference no. 3312 [MPK].
- 3037 \*ewU CERLING, Thure E., HARRIS, John M., MACFADDEN, Bruce J., LEAKEY, Meave G., QUADE, Jay, EISENMANN, Vera, and EHLERINGER, James R. (1997). Global vegetation change through the Miocene/Pliocene boundary. Nature 389:153-158.
- 3038 BqtC CERVANTES, Betty. (1997). San Antonio Zoo: facility opportunities for protected contact training. Journal of the Elephant Managers Association, 8(2):33-34.
- 3039 BqtC CHACE, Rebecca. (1994). Review of "Night after night" by Diana Starr Cooper, published 1994 by Island Press/Shearwater Books, Washington, D.C., 173 pp. Circus Report, 30:16-17.
- 3040 BkuW CHADWICK, Douglas H. (1991). Out of time, out of space: elephants. National Geographic, 179(5):2-38, 42-49. **Annotation:** Wildlife biologists are often faced with the dilemma — to cull or not to cull? "Culling, unlike poaching and trophy hunting, attempts to maintain the herd's natural age and gender balance. Still, critics emphasize the inevitable loss of genetic diversity and the horror of slaughtering of great and intelligent beings" [JS, p. 45].

- 3041 BuiW CHADWICK, Douglas H. (1992). The fate of the elephant. Sierra Club Books, San Francisco, 492 pp. Also published by Viking, London, 1993, and by Key Porter Books, Toronto. **Annotation:** Explores the ecology and habitat of elephants in Africa and India. Follows trail of poachers in Africa to the centers of the ivory trade in Japan and Hong Kong to document decline of elephants and investigates future of species in relation to man's expanding population [ID-H/M&DR]. Hanko (other names: inkan, inbou, jitsuin), signature stamps used in Japan as seals for transactions, is noted on pages 217-218; reviewed in "Circus Report", June 27, 1994, No. 26:12 [SLS].
- 3042 LjwW CHADWICK, Douglas H. (1995). Ndoki: last place on Earth. National Geographic, 188(1):2-45. **Annotation:** "In a remote pocket of central Africa runs a river called Ndoki ('sorcerer' in Lingala language). Its waters flow from a tropical forest that supports groups of Pygmies and a greater abundance of wildlife than exists perhaps anywhere else on the continent. Teeming with leopards and golden cats, gorillas and elephants, this jungle also harbors chimpanzees that may never have encountered a human being" [E/ECM]. See Reference no. 5500 [MPK].
- 3043 LcwW CHADWICK, Douglas H. (1996). A place for parks in the new South Africa. National Geographic, 190(1):2-41. **Annotation:** After the long struggle against apartheid, South Africa faces the challenge of balancing the needs of a park system that is the envy of the world with those of a poor and land-hungry people [E/ECM].
- 3044 LcwW CHAFOTA, Jonas and OWEN-SMITH, R. Norman. (1996). Options for the management of elephants in northern Botswana. Pachyderm, 22:67-73. **Annotation:** Culling, population, habitat alteration, hunting, CNP, Moremi, Nxai Pan [MPK].
- 3045 EdqC CHAKRABORTY, T. and MAJUMDER, B. K. (1990). Foot and mouth disease in an elephant at Calcutta Zoological Garden: a case report. Indian Veterinary Medical Journal, 14(3):213-214.
- 3046 LqgC CHALLIS, Mark. (1994). The re-development of Knowsley Safari Park's elephant facility. In Proceedings of the Seventh U.K. Elephant Workshop, hosted by Cricket St Thomas Wildlife Park, Somerset, 20th October 1993 (ed. N. G. Spooner and J. A. Whitear), pp. 6-8. Published by North of England Zoological Society.
- 3047 LweW CHAMBAL, Mateus. (1993). Current elephant range and status in Mozambique. Pachyderm, 16:44-47. **Annotation:** Provides overview of range and status of African elephants in Mozambique. Three main populations: central, northern and southern, in order of most promising in the long term. Need to create conservation zones and proper planning [ID-H/M&DR].
- 3048 LwuW CHANDA, Glory and TEMBO, Ackim. (1993). The status of elephant on the Zambian bank of the middle Zambezi Valley. Pachyderm, 16:48-50. **Annotation:** AfESG meeting, Victoria Falls, Zimbabwe, November 17-22, 1993: Scientific presentations. Elephant population in middle Zambezi has been one of the most heavily affected by hunting in Central Africa. Since the 15th Century, when Portuguese invaded the area, elephants have never recovered from legal and illegal hunting. In 1991 a survey covering 1,270 sq. kms revealed a total of 359, almost half the number which existed in 1970. Results revealed high illegal off take and inadequate policy by wildlife authorities [ID-H/M&DR].
- 3049 EnbC CHANDRA, M. S., RAVOOF, A., and KHAN, I. A. (1990). Feeding behavior of domesticated elephants. Myforest, 26(3):239-242.
- 3050 EwcW CHANDRAN, P. M. (1990). Population dynamics of elephants in Periyar Tiger Reserve. Proceedings of the Symposium on Ecology, Behaviour and Management of Elephants in Kerala. Kerala Forest Department, Thiruvananthapuram.
- 3051 EbrC CHANDRASEKHARAN, K., RADHAKRISHNAN, K., CHEERAN, J. V., NAIR, K. Muraleedharan, and PRABHAKARAN, T. (1992). Some observations on musth in captive elephants in Kerala (India). In The Asian elephant: ecology, biology, disease, conservation and management. Kerala Agricultural University, India.
- 3052 EdaW CHANDRASEKHARAN, K., RADHAKRISHNAN, K., CHEERAN, Jacob V., NAIR, K. N. Muraleedharan, and PRABHAKARAN, T. (1995). Review of the incidence, etiology and control of common diseases of Asian elephants with special reference to Kerala. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 439-449. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3053 LnbW CHAPMAN, Luaren J., CHAPMAN, Colin A., and WRANGHAM, Richard W. (1992). Balanites wilsoniana: elephant dependent dispersal? Journal of Tropical Ecology, 8(3):275-283. **Annotation:** Demonstrates forest elephants play key role (Kibale Forest, Uganda) as seed dispersal agents for upper canopy forest tree, Balanites wilsoniana. Seeds that pass through elephants have greater probability (50.7%) of germinating than those collected below trees (3.0%). Elephant population estimated about 300, spent most time in Ngogo area and Kanyawara [ID-H/M&DR].
- 3054 LmwW CHARDONNET, B. (1988). Les elephants au Togo. Revue Elevage Medecine Veterinaire Pays Tropic, 41(3):303-305. **Annotation:** While there is reduction of African elephant populations in many range states, a recent survey suggests an increase in Togo. Country wide survey revealed 145 animals, a significant increase over 1980 survey of 80 [ID-H/M&DR].
- 3055 BapB CHARIF, R. A. (1993). The sounds of silence. Wildlife Conservation, 96(2):44-47. **Annotation:** Attempts to understand how elephants communicate. Combination of low frequencies and high power means some calls inaudible to human ears may be heard by elephants miles away and may, among other things, signal when a female is in estrus [ID-H/M&DR].
- 3056 \*yhU CHAUVET, Jean-Marie, DESCHAMPS, Eliette B., HILLAIRE, Christian. (1996). Dawn of art: the Chauvet cave. Harry N. Abrams, New York, 135 pp.
- 3057 EeuB CHEERAN, Jacob and POOLE, Trevor B. (1996). The exploitation of Asian elephants. In The exploitation of mammal populations (ed. Victoria J. Taylor and Nigel Dunstone), pp. 302-309. Chapman & Hall, London, 415 pp. **Annotation:** Elephants mentioned in regard to hunting, conservation, management and sustainability (cf. Reference no. 4872) [MPK].
- 3058 EdaW CHEERAN, Jacob V., CHANDRASEKHARAN, K., and RADHAKRISHNAN, K. (1995). Principles and practice of fixing dose of drugs for elephants. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 430-438. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3059 EedW CHEERAN, Jacob V., NAGARAJ, M. M., and ANIMON, M. M. (1997). Preliminary studies on mineral supplements for Asian elephants. Tigerpaper 24(4):18-20. **Annotation:** Study done 1995-96, strong interest shown by elephants in Kerala, South India, towards minerals indicates they are in need of mineral supplements; possibly severe debarking of trees in the area has resulted from acute deficiency of minerals [E/ECM].
- 3060 LcwW CHEFFINGS, Joe. (1998). Jumbo Park. Swara, 21(2):12-15. **Annotation:** The wilderness that is Tsavo East; argument that it is under-

- exploited [E/ECM].
- 3061 LgjW CHEFFINGS, Joe. (1988). Review of "Elephant memories: thirteen years in the life of an elephant family" by Cynthia Moss, published 1988 by William Morrow, New York, 336 pp. *Swara*, 11(5):32.
- 3062 EroC CHEN, C. L., OLSEN, J. H., and MORRIS, L. S. (1989). Determination of reproductive cycle and pregnancy by radioimmunoassay (RIA) of serum progesterone in 13 Asian elephants. *Proceedings of the American Association of Zoo Veterinarians*, page 203.
- 3063 \*vaU CHEN, Guanfang. (1988). Mastodont remains from the Miocene of Junggar Basin in Xinjiang. *Vertebrata Palasiatica*, 26(4):265-277 + 4 plts [in Chinese with English text].
- 3064 BpoB CHENG, H.-C. and YAMASHIRO, D. (1991). Synthesis and receptor binding activity of elephant beta-endorphin, a beta-endorphin homolog with highly potent analgesic activity. *International Journal of Peptide & Protein Research*, 38:66-69.
- 3065 LicW CHERFAS, Jeremy. (1989). Decision time on the African ivory trade. *Science*, 246(4926):26-27.
- 3066 BioW CHERFAS, Jeremy. (1989). Science gives ivory a sense of identity. *Science*, 246(4934):1120-1121. **Annotation:** Two ways to use DNA analysis to determine ivory source. Extract DNA from flesh left on ivory, measure proportion of stable isotopes of three elements in ivory, focusing on ratio of <sup>13</sup>C to <sup>12</sup>C. Carbon ratio indicates amount of grass versus shrubs eaten. Determining ratio of <sup>15</sup>N to <sup>14</sup>N correlated to rainfall, while strontium isotopes indicate age of geological sub strata [ID-H/M&DR].
- 3067 LcwW CHERRINGTON, Mark. (1988). A sanctuary overwhelmed. *Earthwatch*, March:16-23. **Annotation:** "As refugee elephants flood Africa's parks, wildlife managers must decide how many elephants are too many" [E/ECM].
- 3068 LucW CHERRINGTON, Mark. (1989). Poaching: beating swords into ploughshares. *Earthwatch*, October:22-29. **Annotation:** *Loxodonta africana*, conservation, ivory, legislation, MENP, Burundi [MPK].
- 3069 BbeB CHEVALIER-SKOLNIKOFF, Suzanne and LISKA, Jo. (1993). Tool use by wild and captive elephants. *Animal Behaviour*, 46(2):209-219. **Annotation:** Tool-use potentials of captive African and Asian elephants and wild African elephants, explores ecological and evolutionary significance of behavior. Comparisons of type and amount of tool use between captive and wild elephants and with other known tool-using mammals is offered as means to evaluate evolutionary significance of such use. In elephants, tool use may serve as adaptations enabling these furless, large bodied tropical land mammals to better cope with ectoparasites and thermoregulation [ID-H/M&DR].
- 3070 ExvC CHIGER, Richard A. (2000). Inheritance of tusks in Asian bull elephants. *Elephant*, 2(4):77.
- 3071 LcuW CHILD, Brian. (1993). A perspective from Zimbabwe: the elephant as a natural resource. *Wildlife Conservation*, 96(2):60-61. **Annotation:** Under Zimbabwe CAMPFIRE program, attempt to sustain wildlife through income producing activities such as tourism, trophy hunting and culling for meat, skin and ivory. Only by giving landholders ownership rights, will elephant population be maintained. Argues against ivory ban and for culling [ID-H/M&DR].
- 3072 LcuW CHILD, Brian. (1995). *A summary of the marketing of trophy quotas in CAMPFIRE areas, 1990-1993*. Department of National Parks and Wild Life Management, Harare, Zimbabwe, 32 pp. **Annotation:** Summarizes quotas and prices received by each district. Most quotas increased moderately and are probably as high as they should be. Increase in elephant quotas is deceptive since, prior to 1992, animals killed on PAC (problem animal control) were not included in quota. Number of elephants shot fell since CAMPFIRE principles promoted. Prior to CAMPFIRE, 150-250 elephant bulls were shot annually in PAC compared to total offtake in 1993 including trophy hunting and PAC of 126 [ID-H/M&DR].
- 3073 LcwW CHILD, Graham F. T. (1995). Elephant management. In *Wildlife and people: the Zimbabwean success*. WISDOM Foundation, pp. 94-119.
- 3074 LcuW CHILD, Graham and WHITE, John. (1988). The marketing of elephants and field-dressed elephant products in Zimbabwe. *Pachyderm*, 10:6-11. **Annotation:** Ivory trade had marked influence on African politics during 19th Century and left a deep rooted, ill-defined mistrust of ivory dealings. Value of elephant as source of food, raw material; ivory stands as most important raw material. Methods of trading are noted, such as public tender and auctions. Values and use of hide, other parts, derivatives, whole carcasses, live animals, trophies [ID-H/M&DR].
- 3075 LewW CHILDES, S. L. and WALKER, B. H. (1987). Ecology and dynamics of the woody vegetation on the Kalahari Sands in Hwange National Park, Zimbabwe. *Vegetatio*, 72(2):111-128. **Annotation:** *Loxodonta africana*, habitat, food, habitat alteration [MPK].
- 3076 EqtC CHIN, How Cheong, KUMARA, P. K. S., PIYADASA, W., GANEGODA, G. A. P., and PERERA, Virginia H. (1998). Domesticated working elephants in Sri Lanka. Abstract presented at *National Symposium on Elephant Management and Conservation* (ed. Jayantha Jayewardene and Charles Santiapillai), p. 20. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 3077 EtqC CHIPPERFIELD, Jimmy. (1989). Rosie. In *Between man and beast: true tales and observations of the animal kingdom* (J. Herriot, J. A. Michener, P. Cousteau and others: Compiled by G. and J. Phelps), pp. 113-114. Bonanza Books, New York, 213 pp. **Annotation:** Publicity stunt involving an elephant ("Rosie"), which nearly went wrong, but had a happy ending, December 31, 1930, Piccadilly Hotel, London [ECM].
- 3078 EdqC CHOOI, K. F. and ZAHARI, Z. Z. (1988). Salmonellosis in a captive Asian elephant. *Journal of Zoo Animal Medicine*, 19:48-50.
- 3079 EgeW CHOUDHURY, Anwaruddin. (1992). Wildlife in Manipur — a preliminary survey. *Tigerpaper*, 19(1):20-28. **Annotation:** Footprints of elephants have been found at elevations of more than 1,500 m above mean sea level in Dzuko valley [p. 22]. See *Elephant*, 2(2):46 for comparative data on African elephants [JS/ECM].
- 3080 EgeW CHOUDHURY, Anwaruddin. (1998). Mammals, birds and reptiles of Dibru-Saikhowa Sanctuary, Assam, India. **Annotation:** Author encountered elephants throughout sanctuary; estimated population range of 150 to 400, due to movement between reserves. Census by Forest Department in March 1993 using direct count method found 131 elephants [E/SLS].
- 3081 BroB CHRISTENSEN, C. L., SCHMIDT, Michael J., HESS, David L., and ALAK, B. M. (1993). Oocyte nuclear maturation in vitro in the African (*Loxodonta africana*) and Asian elephant (*Elephas maximus*). *Biology of Reproduction*, 48(Supplement 1):80 [Abstract].
- 3082 LmcW CHUNGE, Ruth. (1992) [Reports of] African Elephant Specialist Groups. *Species*, 19:44.
- 3083 LcwW CHUNGE, Ruth. (1993) [Reports of] African Elephant Specialist Groups. *Species*, 20:53.
- 3084 LcmW CHUNGE, Ruth. (1994). African Elephant Specialist Group: triennial report. *Species*, 21/22:27-28.
- 3085 LcmW CHUNGE, Ruth. (1994). African Elephant Specialist Group: triennial report. *Species*, 23:58.

- 3086 LmcW CHUNGE, Ruth. (1995). 1995 African Elephant Database now available. *Species*, 25:18. **Annotation:** Format and contents of third, most recent publication of African Elephant Database, collaborative effort between UNEP/GRID and IUCN/SSC/AfESG. Essentially a "hard copy" of computerized database housed at UNEP/GRID in Nairobi. Since most of data are qualitative and reliability of numbers varies, comparative analysis is not feasible [ID-H/M&DR].
- 3087 EcmW CHUNGE, Ruth. (1995). The African elephant database: why the need for discussion? [Abstract]. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), p. 535. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3088 LcmW CHUNGE, Ruth. (1995). African Elephant Specialist Group [1995 report]. *Species*, 25:52.
- 3089 LcmW CHUNGE, Ruth. (1996). African Elephant Specialist Group [report of 1994-1996 Triennium]. *Species*, 26/27:39-40.
- 3090 LrbW CHURCH, A. H. V. (1992). The birth of an elephant. *Swara*, 15(5):14. **Annotation:** Birth experience of wild elephant in MMGR. Cow was unattended by other animals during birthing sequence of approximately an hour. Within two hours of initial signs of birth trauma, calf was mobile and the female urged it to follow her [ID-H/M&DR].
- 3091 \*wvU CHURCHER, C. (1989). *Mammuthus* as an indicator of the age of deposits in the Old Crow Basin, Yukon Territory, Canada. *Abstracts of Papers and Posters Fifth International Theriological Congress, Rome, 22-29 August 1989*, Volume I:143-144.
- 3092 LiuW CLARK, Bill. (1991). From Dr. Bill Clark International Programme Director, Friends of Animals. *Swara*, 14(1):35. **Annotation.** Letter concerning trophy hunting: good and bad [ECM].
- 3093 LucW CLARK, Bill. (1997). On anti-poaching patrol with FoA's "Bunny Hugger". *ActionLine*, Summer, 1997:16-19. **Annotation:** "We have swooped into prime poaching habitat during prime poaching season — and come up empty-handed. The poachers simply weren't there. If this is so, then Bunny Hugger is accomplishing her most important assignment: driving the poachers out of Mole National Park [Ghana]" [E/ECM, p. 19].
- 3094 BiuW CLARK, Bill. (1998). A treaty is weakened...and 'children' pay the price. *ActionLine*, Fall, 1998:6-10. **Annotation:** Since CITES relaxed world-wide ban on ivory trade in mid-1997, a horrible wave of poaching has surged through elephant habitats of Africa and Asia. If a [poached] mother has a child beside her, an easy second shot can boost the profit. A tuskless infant will simply be left to starve [E/ECM].
- 3095 LcwW CLARK, Bill. (1999). Taking wing to save those on the ground. *ActionLine*, Winter, 1999:8-11. **Annotation:** A patrol airplane, donated by Friends of Animals, is intended to discourage hunters and provide an improved measure of protection for elephants and 55 other species of large mammals and 378 species of birds [E/ECM].
- 3096 +avB CLARK, James M. (1991). A new early Miocene species of *Paleoparadoxia* (Mammalia: Desmostylia) from California. *Journal of Vertebrate Paleontology*, 11(4):490-508.
- 3097 LwcW CLARKE, Robin (ed.). (1989). *The African elephant*. UNEP, Nairobi, 40 pp. (UNEP/GEMS Environment Library; no. 3).
- 3098 LahC CLEMENT, Herb. (1993). Jumbo returns. *Circus Report*, No. 6:9. **Annotation:** American Museum of Natural History, New York City, unveiled the skeleton of the giant African elephant, "Jumbo", in a refurbished exhibit [E/ECM].
- 3099 +uhB CLUTTON-BROCK, Juliet. (1987). *A natural history of domesticated mammals*. Cambridge University Press, Cambridge, 208 pp. **Annotation:** *Elephas maximus*, *Loxodonta africana*, *Mammuthus*, ivory, hunting [MPK].
- 3100 LicW COBB, Stephen (coordinator). (1989). *The ivory trade and the future of the African elephant*. Ivory Trade Review Group, Oxford (2 volumes, Technical Reports). Vol. 1: summary and Conclusions; Vol. 2: Technical Reports (organized by sections, not paginated). **Annotation:** Vol. 2 summarizes status, trends of African elephant population, ivory trade in Africa and importer nations, ivory trade economics, impact of ivory trade on elephants. Section 1: Overview of status and trends of African elephant at continental level and in Central Africa. Section 2: African ivory trade from 1979-1988. Section 3: Importing nations. Section 4: ivory trade economics. Section 5: Impact on Africa's elephants. Section 6: Policy options for conservation [ID-H/M&DR].
- 3101 LecW COCHRANE, Erica. (1998). Letter from Uganda. *Wildlife Conservation*, 101(3):8-9.
- 3102 BbqC COE, John. (1995). Behavioral Enrichment: "Toys-R-Us". *Journal of the Elephant Managers Association*, 6(1):54-56. **Annotation:** Ideas for elephant toys to increase activity and stimulate natural behaviors [SLS].
- 3103 LwbW COE, Malcolm J. and COE, Christopher. (1987). Large herbivores, acacia trees and bruchid beetles. *South African Journal of Science*, 83(1):624-635.
- 3104 LcbW COETSEE, C. (1996). Elephant translocations. *Pachyderm*, 22:81-82. **Annotation:** Behavior, GNP, Kenya, Madikwe, South Africa [MPK].
- 3105 LaoW COETZEE, E. M., VAN DER BANK, F. H., and CRITSER, J. K. (1993). Allozyme variation in a wild African elephant (*Loxodonta africana*) population from the Kruger National Park, South Africa. *Comparative Biochemistry and Physiology*, 106B(1):109-114. **Annotation:** During culling program of April 1992, blood, liver, heart, testis, eye, muscle and kidney samples were obtained from KNP elephants. Gene products of 25 protein coding loci were examined by horizontal starch-gel electrophoresis. Eighteen protein coding loci or 72% displayed monomorphic gel banding whereas only seven or 28% displayed polymorphic gel banding patterns. Relative gene diversities within and between populations was 84% and 16%, respectively. Findings suggested that, although the population in KNP is in a relatively healthy genetic condition, existing culling methods should be adapted to prevent further loss of genetic variability [ID-H/M&DR].
- 3106 LcwW COETZEE, G. (1989). Conspiracy of silence? *South African Panorama*, 34(9):10-15.
- 3107 LaoB COETZEE, H. L., KOTZE SANET, N., and LOURENS, N. (1995). Characterization of mucus glycoproteins in the intestinal mucosa of the African elephant (*Loxodonta africana*) following lectin histochemistry. *Onderstepoort Journal of Veterinary Research*, 62(3):187-192.
- 3108 \*wvU COHEN, C. (1994). *Destin du mammouth*. Editions du Seuil, Paris, total pages not provided.
- 3109 \*gvU COHEN, R. (1993). Meeting a mastodon. *Earthwatch*, 12(7):36.
- 3110 BciW COHN, Jeffrey P. (1990). Elephants: remarkable and endangered. *BioScience*, 40(1):10-14. **Annotation:** Scientists and government officials have recently banned most trade in ivory. This action and that of individual governments and conservation groups give hope wanton slaughter may be halted [E/ECM].
- 3111 LhiW COHN, R. (1994). Zambia: the people's war on poaching. *Audubon*, 96(2):70-84.

- 3112 +vhB COLBERT, Edwin H. (1992). My experiences with the late Henry Fairfield Osborn. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 34-35. Rodale, Emmaus (Pennsylvania), 240 pp. **Annotation:** Prehistoric elephants, evolution, systematics [MPK].
- 3113 +vhB COLBERT, Edwin H. (1996). Henry Fairfield Osborn and the Proboscidea. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. xxiii-xxvii. Oxford University Press, 472 pp. **Annotation:** Ecology, evolution [MPK].
- 3114 BavW COLBERT, Edwin H. and MORALES, Michael. (1991). Evolution of the vertebrates: a history of the backboned animals through time (4th edition). Wiley-Liss, New York, 484 pp. **Annotation:** Chapter on elephants; relatively nontechnical survey of vertebrate history, excellent college-level textbook [MPK].
- 3115 BalB COLE, G. and NEAL, J. W. (1990). The brain in aged elephants. Journal Neuropathology and Experimental Neurology, 49:190-192.
- 3116 LdoW COLE, M. (1993). Lead in lake blamed for floppy trunks. Africa - Environment & Wildlife, 1(2):9. **Annotation:** Published in "New Scientist", 14 November 1992. Toxicology, disease, injury, Lake Kariba, Zimbabwe [MPK].
- 3117 LdcW COLLY, L. (reprinted 1994). Diseases of elephants. In The African elephant as a game ranch animal, pp. 106-114. SAVA [South African Veterinary Association] Wildlife Group, Onderstepoort, South Africa, 192 pp.
- 3118 \*evU COMFORT, Marianne. (1998). Old bones: State Museum restorers give new look to Ice Age relic. New York State Conservationist, 52(4):8-11. **Annotation:** Paleocology of Ice Age animals in New York area and Americas about 10,000 years ago, includes mammoth, mastodon, woodland bison, muskox, dire wolf, ground sloth, giant beaver, modern beaver, wild turkey. Cohoes Mastodon skeleton is mounted in New York State Museum, Albany, New York, USA. On p. 9, author explains why she chose term "mastodont" for American mastodon. It has been suggested to use "mastodon" (without the "t") instead of "mastodont" to differentiate it from past spelling, which implied a more inclusive and phylogenetically heterogeneous group of taxa (after Shoshani and Tassy, 1997, p. xxix). For example, many gomphotheres, which belong to different lineages and families from the American mastodon (family Mammutidae), were once designated as "mastodont"; it has become confusing, and that is the main reason for usage of "mastodon" only for the American mastodon [JS].
- 3119 LicW CONCAR, David, and COLE, Mary. (1992). Conservation and the ivory tower. New Scientist, 133(1810):29-33.
- 3120 LiuW CONNIFF, Richard. (1987). When the music in our parlors brought death to darkest Africa. Audubon, 87(7):76-93. **Annotation:** Accounts of factories on Connecticut River which were major US consumers of ivory from about 1860 to 1930 and some of the history of ivory trade in Africa over that period [SLS].
- 3121 LucW CONTRERAS, Joseph. (1991). The killing fields. Newsweek, 118(21):46-48.
- 3122 LczW CONTRERAS, Joseph. (1993). Pack your trunk and off you go. Newsweek [December 6], page 65. **Annotation:** Transportation of elephants from GNP to parks in South Africa and Zimbabwe.
- 3123 LbwW CONYBEARE, A. M. G. (1991). Elephant occupancy and vegetation change in relation to artificial water points in a Kalahari sand area of Hwange National Park. D. Phil. thesis, University of Zimbabwe (Harare). **Annotation:** Habitat alteration, ecology, population, distribution, Zimbabwe [MPK].
- 3124 LbwW CONYBEARE, Andrew Michael G. (1992). Effects of elephants on the vegetation of Hwange National Park. In Elephant management in Zimbabwe (2nd edition) (ed. Rowan B. Martin and Andrew Michael G. Conybeare), pp. 53-54. Dept of National Parks and Wild Life Management, Harare, Zimbabwe. **Annotation:** Dry season elephant densities in much of Kalahari Sand areas of the park are approximately 3 animals per sq km. Effect of elephants on three vegetation types has been monitored since 1980 [ID-H/M&DR].
- 3125 \*avU COOPE, G. Russell and LISTER, Adrian M. (1987). Late-glacial mammoth skeletons from Conover, Shropshire, England. Nature, 330:472-474.
- 3126 BqtC COOPER, Diana Starr. (1994). Night after night. Island Press/Shearwater Books, Washington, D.C./Covelo (California), 173 pp. **Annotation:** Relives performance of The Big Apple Circus in rural New Hampshire. Spotlights the circus family with spellbinding stories from performers themselves. See reviews by Rebecca Chace, Reference no. 3039 and Andrew Todhunter, Reference no. 5480 [ECM].
- 3127 BroC COOPER, K. A. (1989). Reproductive endocrinology of male and female Asian and African elephants at the Columbus Zoo. M. S. thesis, Ohio State University, Columbus.
- 3128 BroC COOPER, K. A., HARDER, J. D., CLAWSON, D. H., FREDRICK, D. L., LODGE, G. A., PEACHEY, H. C., SPELLMIRE, T. J., and WINSTEL, D. P. (1990). Serum testosterone and musth in captive male African and Asian elephants. Zoo Biology, 9(4):297-306. **Annotation:** Study conducted over 5-year period. Samples collected from *Elephas maximus* and *Loxodonta africana cyclotis*. The Asian bull serum testosterone concentrations were elevated substantially between April and September each year, while those of the African bull showed greater variation and lower testosterone levels overall [E/JS].
- 3129 BabB CORBARA, B. and DAMEKZINSELLE, I. (1990). How elephants communicate over long distances. Recherche, 21(226):1430-1431 [in French].
- 3130 LxvB CORBET, Gordon Barclay. (1997). The species in mammals. In The limits of biodiversity (ed. M. F. Claridge, H. A. Dawah, and M. R. Wilson), pp. 341-356. Chapman & Hall, London and New York, total pages not provided. **Annotation:** Whether to consider *Loxodonta africana africana* and *L. a. cyclotis* two separate species, p. 347 [JS].
- 3131 EwvW CORBET, Gordon Barclay and HILL, J. E. (1992). The mammals of the Indomalayan region: a systematic review. Oxford University Press, Oxford, 488 pp. **Annotation:** Reviewed in "Journal of Mammalogy", 75(3):799-803 [1994] [MPK].
- 3132 EbwW COREA, Ravi. (1998). An assessment of the human-elephant conflict in Sri Lanka and suggested solutions. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), p. 19. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 3133 LwjW CORFIELD, Tim. (ed.). (1993). The wilderness guardian. Longman, Nairobi, 701 pp. **Annotation:** Chapter 10 "Ecology and Natural History" includes field aging methods for the African elephant (p. 404) and a simplified chart (p. 405) for estimating age of elephants



- from their molars, after Laws (1996), see Reference no. 676; chapter 12 "Veterinary notes" includes a diagram with internal anatomy of the elephant [JS].
- 3134 LcwW COULSEN, I. C. (1992). Elephants and vegetation in the Sengwa Wildlife Research Area. In *Elephant management in Zimbabwe* (2nd edition) (ed. Rowan B. Martin and Andrew Michael G. Conybeare), pp. 55-61. Department of National Parks and Wild Life Management, Harare, Zimbabwe. **Annotation:** Severe reduction of trees apparent in 1958 aerial photography, but elephants not culled till early 1980s, when population of 1,100 was reduced to about 260. Focuses on *Acacia tortilis*, author tries to ascertain equilibrium between elephant density and tree survival [ID-H/M&DR].
- 3135 \*avU COURT, Nicholas. (1990). Periotic anatomy of *Arsinoitherium* (Mammalia, Embrithopoda) and its phylogenetic implications. *Journal of Vertebrate Paleontology*, 10(2):170-182.
- 3136 \*avU COURT, Nicholas. (1992). Cochlea anatomy of *Numidotherium koholense*: Auditory acuity in the oldest known proboscidean. *Lethaia*, 25:211-215. **Annotation:** *Numidotherium* apparently was able to hear high frequency sounds, unlike extant taxa that can hear low frequency sounds [JS].
- 3137 \*nbU COURT, Nicholas. (1993). A dental peculiarity in *Numidotherium koholense*: evidence of feeding behaviour in a primitive proboscidean. *Zeitschrift für Säugetierkunde*, 58:194-196. **Annotation:** This straightforward observation of abrasion on teeth illuminates at least one aspect of food procurement behavior in the earliest of proboscideans, and indicates that *Numidotherium* likely specialized in browse occurring at or above head height. Since bilophodonty is associated with the comminution of leaves, it is not inconceivable that numidotheres utilized the described behavior to strip leaves from slender branches [E/ECM].
- 3138 \*apU COURT, Nicholas. (1994). Limb posture and gait in *Numidotherium koholense*, a primitive proboscidean from the Eocene of Algeria. *Zoological Journal of the Linnean Society*, 111:297-338. **Annotation:** Structures of shoulder and antibrachium (fused in a supinate position) indicate forelimb posture was semi-sprawling. Carpus and tarsus indicative of plantigrade stance, there is no support for proboscidean origins from cursorial stock [E/JS, p. 297].
- 3139 \*apU COURT, Nicholas. (1994). The periotic of *Moeritherium* (Mammalia, Proboscidea): homology or homoplasy in the ear region of Tethytheria McKenna, 1975 *Zoological Journal of the Linnean Society*, 112:13-28. **Annotation:** "...the presence in *Moeritherium* of a suite of periotic characters more derived than those in *Numidotherium* undermines the primitive status of moeritheres relative to numidotheres and all other Proboscidea, and therefore weakens the hypothesis of a secondary reversal to a more primitive auditory region in *Numidotherium*" [E/JS, p. 13].
- 3140 \*vaU COURT, Nicholas. (1995). A new species of *Numidotherium* (Mammalia: Proboscidea) from the Eocene of Libya and the early phylogeny of the Proboscidea. *Journal of Vertebrate Paleontology*, 15(3):650-671. **Annotation:** *N. savagei*, named after the late Robert Savage, is considered to be the least transformed of basal proboscideans. *Moeritherium* is better treated, an early specialized offshoot of lineage leading to more derived, graviportal proboscideans [E/JS; p. 650].
- 3141 \*avU COURT, Nicholas and JAEGER, J.-J. (1991). Anatomy of the periotic bone in the Eocene proboscidean *Numidotherium koholense*: an example of parallel evolution in the inner ear of tethytheres. *Comptes Rendus de l'Académie des Sciences, Paris*, 312, Série II:559-565 [In French and English]. **Annotation:** "The recent proposition that elephants and sea cows evolved from a unique common ancestor which lacked a *fenestra cochleae* in the *pars cochlearis* of the periotic, is therefore refuted. Similarities in the ear region of sea cows and elephants are demonstrated to be the result of homoplasy, thus weakening the concept of Tethytheria" [E/JS].
- 3142 EcwW COX, J. A. (1988). Remote sensing and land evaluation for planning elephant corridors in Sri Lanka. *ITC Journal*, 1988:172-177.
- 3143 LmwW CRAIG, G. Colin. (1990). Present population and distribution of elephants in northern Botswana. In *The Future of Botswana's Elephants* (ed. P. Hancock), pp. 16-18. Proceedings of Kalahari Conservation Society Symposium on Elephants (Gaborone, Botswana, 10 November 1990), 96 pp. **Annotation:** Gives survey methods and estimated population counts of three surveys taken 1989-90, approximate count 54,700 elephants, northern Botswana [ID-H/M&DR; MPK].
- 3144 LmcW CRAIG, G. Colin. (1992). Population dynamics of elephants. In *Elephant management in Zimbabwe* (2nd edition) (ed. Rowan B. Martin and Andrew Michael G. Conybeare), pp. 71-76. Department of National Parks and Wild Life Management, Harare, Zimbabwe. **Annotation:** Empirical, indirect evidence of life table information suggest Zimbabwe elephant population increasing over past decades. For quotas linked to economic off takes and for population stabilization programs, indirect evidence is insufficient. Regular monitoring is important guide to management [ID-H/M&DR].
- 3145 LmwW CRAIG, G. Colin. (1992). A simple model of tree/elephant equilibrium. In *Elephant management in Zimbabwe* (2nd edition) (ed. R. B. Martin and A. M. G. Conybeare), pp. 81-86. Department of National Parks and Wild Life Management, Harare. **Annotation:** Tries to provide model of tree and elephant equilibrium whereby elephant density allowing for persistence of closed canopy woodland can be assessed. Considers growth and recruitment of trees and effect of elephant density on tree mortality and recruitment [ID-H/M&DR].
- 3146 LmwW CRAIG, G. Colin. (1993). Options for aerial surveys of elephants. *Pachyderm*, 16:15-20. Proceedings of the African Elephant Specialist Group meeting, Victoria Falls Zimbabwe, Nov. 17th-22nd 1993: Plenary paper one. **Annotation:** In most areas where elephants occur, aerial surveys are only means used to establish numbers. Most common methodology is systematic reconnaissance flight or transect sample count which has been criticized as inadequate. Other methods to supplement standard methodology are reviewed [ID-H/M&DR]. Dung counting for censusing [JLP].
- 3147 LmwW CRAIG, G. Colin. (1995). Requirements for prediction of the tree/elephant equilibrium in Zimbabwe. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 497-508. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp. **Annotation:** Measurements of rates of tree loss in variety of vegetation types demonstrate that elephants and woodlands cannot be expected to coexist over most of elephant range in Zimbabwe, where average elephant densities exceed 1 per sq km. Model predictions suggest woodland canopies could be expected to persist at lower but still viable elephant densities of about 0.2 per sq km. Required elephant density probably lies between these two figures [ID-H/M&DR].
- 3148 LmwW CRAIG, G. Colin (1996). Surveying cross-border elephant populations in southern Africa. *Pachyderm*, 22:78.
- 3149 LuiW CRAIG, G. Colin and GIBSON, D. St. C. (1993). *Records of elephant hunting trophies exported from Zimbabwe: 1987-1993*. Department of

- National Parks and Wildlife Management, Harare, Zimbabwe, 9 pp. **Annotation:** Foreign trophy permit forms analyzed to evaluate sport hunting trends between 1987-1992. Mean mass for each pair tusks used unless one was missing or very dissimilar in size so tusk mass for individual tusk of animal taken using larger one only [ID-H/M&DR].
- 3150 BhwB CRAM, Penny L. (1997). Review of "The life and lore of the elephant" by Robert Delort, published 1992 by Harry N. Abrams, Inc., New York, 192 pp. Animal Keepers' Forum, 24(5):220. **Annotation:** Excels in giving living history of Asian and African elephants; cf. Reference no. 3263 [E/ECM].
- 3151 EadB CRELIN, E. S. (1988). Ligament of the head of the femur in the orangutan and Indian elephant. Yale Journal of Biology and Medicine, 61:383-388.
- 3152 BnqC CRISSEY, Sue and HINTZ, Harold F. (1996). Food for Thought: protein nutrition of elephants. Journal of the Elephant Managers Association, 7(3):28-30.
- 3153 BdoC CRISSEY, S. D., PAPAS, Andreas M., and PETRIC, A. (1992). Bioavailable forms of vitamin E for correcting a biochemical deficiency in captive elephants. In Ongules/Ungulates 91 (ed. F. Spitz, G. Janeau, G. Gonzalez, S. Aulagnier, J. Joachim, and C. S. Mann), pp. 163-166. S.F.E.P.M.-I.R.G.M. (Société Française pour l'Etude et la Protection des Mammifères - Paris Institut de Recherche sur les Grands Mammifères), Paris-Toulouse, September 2-6, 1991.
- 3154 LrqC CRITSER, J. K. (1990). Development of an artificial insemination program in the African elephant. Presented at the American Association of Zoological Parks and Aquaria 1990, Annual Conference, Indianapolis, Indiana.
- 3155 LcwW CROMHOUT, J. P. (1991). Elephants for Itala. The Rhino & Elephant Journal, 5:31-33. **Annotation:** Initial program focused on reintroduction of elephants into Itala Game Reserve (South Africa). Calls for total of 50 to 80 young animals to be brought in during five year period [ID-H/M&DR].
- 3156 LcwW CROWE, Doug. (1995). Status of selected wildlife resources in Botswana and recommendations for conservation actions. In The present status of wildlife and its future in Botswana. The proceeding of a symposium/workshop organized by the Kalahari Conservation Society and the Chobe Wildlife Trust, 7-8 November 1995, Gaborone. The Kalahari Conservation Society/The Chobe Wildlife Trust, Gaborone, pp. 11-28.
- 3157 LcuW CROWLEY, S. L. (1997). Saving Africa's elephants: no easy answers. African Wildlife News, 32(3):1, 3-4.
- 3158 LcwW CUBBERLY, P. S. (1990). WWF outlines plan for African trinational protected area. Focus, 12(5):1, 4.
- 3159 LinW CULOTTA, Elizabeth. (1995). Ivory identity crisis still unsolved. Science, 267(5202):1264. **Annotation:** Isotopic fingerprinting of ivory not as reliable as initially thought. Notes 1990 studies and most recent investigations dealing with diet and vegetation change in area provides for differences in isotopic composition [ID-H/M&DR].
- 3160 LuwW CUMMING, David H. M. (1989). Commercial and safari hunting in Zimbabwe. In Wildlife Production Systems: economic utilisation of wild ungulates (ed. R. J. Hudson, K. R. Drew, and L. M. Baskin), pages not provided. Cambridge University Press, Cambridge, xiii + 469 pp.
- 3161 LcwW CUMMING, David H. M. (1990). Wildlife conservation in African parks: progress, problems & prescriptions. WWF/DNPWLM, Harare, Zimbabwe, 20 pp. **Annotation:** Habitat alteration, culling, genetics in HNP [MPK].
- 3162 LmcW CUMMING, David H. M. (1996). How Zimbabwe counts its elephants. Zimbabwe Wildlife, 82:15, 17.
- 3163 LcwW CUMMING, David H. M. and DU TOIT, Raoul F. (1989). The African Elephant and Rhino Group Nyeri meeting. Pachyderm, 11:4-6.
- 3164 LcmW CUMMING, David H. M., DU TOIT, Raoul F., and STUART, S. N. (compilers). (1990). African elephants and rhinos: status survey and conservation action plan. IUCN/SSC African Elephant and Rhino Specialist Group, Gland, Switzerland, 72 pp. **Annotation:** AERSG meeting at Nyeri in 1987 summarizes population data on regional basis, problems linked with conservation. Population status by country. Outlines financial and manpower needs for effective wildlife conservation. Reviews aspects of ivory trade including population trends and quotas [ID-H/M&DR]. See Reference no. 2265 [MPK].
- 3165 LcwW CUMMING, David H. M., FENTON, M. Brock, RAUTENBACH, Ignatius L., TAYLOR, Russell D., CUMMING, Graeme S., CUMMING, Meg S., DUNLOP, Jenifer M., FORD, A. Gavin, HOVORKA, Mark D., JOHNSTON, David S. *et al.* (1997). Elephants, woodlands and biodiversity in southern Africa. South African Journal of Science, 93(5):231-236.
- 3166 LucW CUNLIFFE, R. N. (1994). The impact of the illegal hunting of elephants in Zimbabwe. World Wildlife Foundation, Harare, 66 pp. WWF Project 9F0085.
- 3167 BqzC CURLEY, Elizabeth M. (1991). The utilization of volunteers in the Burnet Park Zoos elephant program. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 56-62. Burnet Park Zoo, Syracuse, 161 pp.
- 3168 BiyB CURREY, Dave. (1989). The Poon connection. The Animal Welfare Institute Quarterly, 38(2):2.
- 3169 LicB CURREY, Dave. (1989). The risk of further compromise at CITES. The Animal Welfare Institute Quarterly, 38(2):1, 4. **Annotation:** "Secretariat fails to support a ban on trading in ivory" [E/ECM].
- 3170 LcuW CURREY, Dave. (1990). Burning issues. BBC Wildlife, 8(3):141.
- 3171 LcwW CURREY, Dave. (1992). CITES 1992: the wildlife trade fair meets again. African elephants remain on Appendix I. The Animal Welfare Institute Quarterly, 41(2):6-7. **Annotation:** "It is time... to start listening to Africans instead of trying to impose... computer models and sustainable development theories. Elephants are worth far more to African economies alive" [E/JLP].
- 3172 LcuW CURREY, Dave and MOORE, H. (1994). Living proof: African elephants: the success of the CITES Appendix I ban. Environmental Investigation Agency, Washington, D.C., 17 pp. Also, Environmental Investigation Agency, London. **Annotation:** Says CITES Appendix 1 listing of African elephant successful in protecting population. Though poaching still exists, it has dropped significantly. Notes ivory trade prior to ban, reviews population status in range states within east, west, central and southern Africa, notes consumer response to ban, aspects of public awareness of tourism and wildlife law enforcement [ID-H/M&DR].
- 3173 \*vaU CZAPLEWSKI, Nicholas J. and MEAD, Jim L. (1994). Late Pleistocene small mammals from Hot Springs Mammoth Site, South Dakota. In The Hot Springs Mammoth Site: a decade of field and laboratory research in paleontology, geology, and paleoecology (ed. L. D.

- Agenbroad and J. I. Mead), pp. 136-149. The Mammoth Site of South Dakota, Hot Springs, 457 pp.
- 3174 EroB CZEKALA, N. M., ROOCROFT, A., and BATES, M. (1989). Estrogen metabolism in the Asian elephant (*Elephas maximus*). Biology of Reproduction, 40(Supplement 1):119 [Abstract].
- 3175 EroB CZEKALA, N. M., ROOCROFT, A., BATES, M., ALLEN, J., and LASLEY, B. L. (1992). Estrogen metabolism in the Asian elephant (*Elephas maximus*). Zoo Biology, 11(2):75-80.
- 3176 LwmW DABOULAYE, Ban Ymari D., and THOMASSEY, J. P. (1990). La problematique des populations d'elephants et de leur habitat au Tchad ["Problems concerning elephant populations and their habitats in Chad"]. IUCN regional bulletin Rev 5:1990. Also Nature et Faune (1990) 6(3):31-37, 54-58 [in French and English]. **Annotation:** Present population of 3,000 elephants in Chad compared with population of 15,000 in 1970 [ID-H/M&DR].
- 3177 \*lvU DAESCHLER, Edward B. (1996). Selective mortality of mastodons (*Mammot americanum*) from the Port Kennedy Cave (Pleistocene; Irvingtonian), Montgomery County, Pennsylvania. In Palaeoecology and palaeoenvironments of late Cenozoic mammals. Tributes to the career of C. S. (Rufus) Churcher (ed. K. M. Stewart and K. L. Seymour), pp. 83-96. University of Toronto Press, Toronto, 675 pp. **Annotation:** More than 90% of 16 mastodons were under age 10. Possible explanation includes selective mortality of young by carnivores [ECM].
- 3178 BorB DAHL, K. D., CZEKALA, N. M., and HSUEH, A. J. W. (1989). Measurements of urinary bioactive follicle-stimulating hormone (FSH) levels during reproductive cycles in diverse mammalian species. Biology of Reproduction, 40(Supplement 1):119 [Abstract].
- 3179 EckW DAIM, M. S. (1995). Elephant translocation: the Malaysian approach. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 242-248. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3180 EopW DAIM, Mohd-Shariff, ZAINUDDIN, Zainal-Zahari, and RUDRAN, Rudy. (1991). Immobilization of free ranging Asian elephants (*Elephas maximus*) in Sri Lanka using etorphine hydrochloride and acepromazine maleate. IUCN/SSC Asian Elephant Specialist Group Newsletter 7:35-40. **Annotation:** Method for rapidly tranquilizing large adult males with reduced induction period was tested (E/SLS).
- 3181 BbzB DALE, Robert H. I. (1994). Overcoming anthropomorphophobia: is it time to find the animal mind? The Elephant Managers Association Newsletter, 5(3):17-18.
- 3182 EgcW DALE, Robert H. I. (1994). Review of "Elephant days and nights: 10 years with the Indian elephant" by Raman Sukumar, published 1994 Oxford University Press, Oxford, 184 pp. Journal of the Elephant Managers Association, 8(2):79.
- 3183 BgcB DALE, Robert H. I. (1995). Review of "Elephants" by Clive Spinage, published 1994 by T. & A. D. Poyser, London, xvi + 319 pp. Illustrated by Larry Norton. Journal of the Elephant Managers Association, 6(3):75-76.
- 3184 BbgB DALE, Robert H. I. (1995). Review of "When elephants weep: the emotional lives of animals" by Jeffrey M. Masson and Susan McCarthy, published 1994 by Delacorte Press, New York, 291 pp. Journal of the Elephant Managers Association, 6(2):68-69.
- 3185 LgjW DALE, Robert H. I. (1996). Review of "Coming of age with elephants: a memoir" by Joyce Poole, published 1996 by Hyperion Press, New York, 288 pp. Journal of the Elephant Managers Association, 7(1):77-78.
- 3186 LbzC DALE, Robert H. I., PETERSON, Jeffrey R., and SHYAN, Melissa R. (1995). Too much of a good thing: African elephants get confused when given three memory tests in a row. Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 6 unnumbered pages.
- 3187 LpbC DALE, Robert H. I., SHYAN, Melissa R., and HAGAN, David A. (1992). Preliminary studies of the spatial memory abilities of captive African elephants (*Loxodonta africana*). The 13th International Elephant Workshop, Atlanta, 1992, pp. 55-56. Zoo Atlanta, Georgia, 151 pp.
- 3188 LbpC DALE, Robert H. I., SHYAN, Melissa R., and HAGAN, David A. (1993). Long-term retention of a short-term memory task by five female African elephants (*Loxodonta africana*). Proceedings of the Elephant Managers' Conference, 14:12-15.
- 3189 BgjB DALE, S. (1990). An elephant they'll never forget. Chicago Tribune, [8 Oct 90].
- 3190 ErcW DALEY, Suzanne. (1997). Park uses contraception, not killing, to keep elephants in check. The New York Times, July 22:C3. **Annotation:** At KNP, an experiment is under way to see if park's elephant population can be kept under control with contraception [E/ECM].
- 3191 LmwW DAMEZ-FONTAINE, I. (1987). Etudes des parametres de la population d'elephant a Nazinga. Burkina Faso, Ministere de l'Environnement et du Tourisme, Ouagadougou, 39 pp. **Annotation:** Purpose: to calculate age structure of elephant population on NGR. Two methods used: photogrammetric and footprints. Photogrammetric method: photographing with measuring pole in proximity to animal or calculating distance between observer and elephant. Results indicate young population, high proportion of herd sexually immature; high proportion of females among mature elephants [ID-H/M&DR].
- 3192 LbnW DAMIBA, Theophane Eugene. (1994). Chewing of bark by elephants: pastime or medicine? Pachyderm, 18:54. **Annotation:** Observations during study of elephant impact on woody vegetation (in NGR) noted animals frequently stripped and chewed, but did not swallow bark, particularly from *Lannea* species. Possibility of elephants treating themselves for poisonous plants, as these species used by people to treat cases of food and beverage poisoning [ID-H/M&DR].
- 3193 LmwW DAMIBA, T. Eugene and ABLES, Ernest D. (1994). Population characteristics and impacts on woody vegetation of elephants on Nazinga Game Ranch, Burkina Faso. Pachyderm, 18:46-53. **Annotation:** Count identified 268 elephants while transect sample survey estimated 234-379 in NGR. Total count seems most acceptable method of monitoring. Nazinga population is young, 79% under 15 years, sex ratio favoring females. Ranch population well protected, expected to increase rapidly. Significant effects on vegetation and land use conflicts with human settlement foreseen [ID-H/M&DR].
- 3194 LcwW DAMIBA, T. Eugene and ABLES, Ernest D. (1994). Promising future of an elephant population: a case study in Burkina Faso, West Africa. Oryx, 27(2):97-103. **Annotation:** NGR, established in 1979, only one of its kind in country, succeeding in reconciling wildlife conservation with needs of local people. Ranch is refuge for elephants escaping harassment elsewhere, but some problems for local people whose crops suffer elephant damage. Despite this, many villagers welcome proximity of ranch and elephants. While still problems to be solved and funds needed, ranch is excellent model for conservation action [ID-H/M&DR].
- 3195 BqzC DANIEL, Ed. (1997). Facility design: the Fort Worth Zoo. Journal of the Elephant Managers Association, 8(1):44-38. **Annotation:**

- Diagrams of elephant facility, consisting of three cow yards, one bull yard, a barn and large pool [ECM].
- 3196 EmcB DANIEL, J. C. (1992). The Asian elephant population today. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 174-175, 177. Rodale Press, Emmaus, Pennsylvania, 240 pp.
- 3197 EcwW DANIEL, J. C. (1993). The Asian elephant: future prospects. Gajah, 11:2-5. **Annotation:** Conserving the elephant means conserving human environment. Must be part of development plans of the state and country as a whole [E/JLP].
- 3198 BcwW DANIEL, J. C. (1995). Introduction. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 1-6. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3199 EgjB DANIEL, J. C. (1998). The Asian elephant: a natural history. Natraj Publishers, Dehra Dun (India), 306 pp. **Annotation:** Anecdotes and articles about all aspects of elephant ecology and biology [RAC].
- 3200 EcjW DANIEL, J. C. and DATYE, Hemant (eds). (1995). A week with elephants: Proceedings of the International Seminar on the conservation of Asian elephants June 1993. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp. **Annotation:** Research on ecology and management of elephant in the wild and captivity in last few decades; describes problems facing the elephant [E/ECM]. EDITORS' NOTE: this and Reference no. 3201 may be the same reference published at different times [JS/SLS].
- 3201 EcjW DANIEL, J. C. and DATYE Hemant (eds). (1998). A week with elephants. Proceedings of the International Seminar on the conservation of the Asian elephants. Oxford University Press, 544 pp. **Annotation:** EDITORS' NOTE: this and Reference no. 3200 may be the same reference published at different times [JS/SLS].
- 3202 EewW DANIEL, J. C., DESAI, A. A., SIVAGANESAN, N., and RAMESHKUMAR, S. (1987). The study of some endangered species of wildlife and their habitats: the Asian elephant. Bombay Natural History Society Project No. 8851-658-04, 208 pp.
- 3203 LqxW DANYLIW, N. Q. and LOFTUS, M. (1997). Stupid park tricks. U.S. News & World Report, June 30:61-64. **Annotation:** Tusklessness among African elephants; cf. annotation to Reference no. 5125 [E/SLS].
- 3204 EcuU DASSANAYAKE, M. B. (1996). Elephant: caught in a jumbo trap. The Sunday Times (Sri Lanka), 15 December:2.
- 3205 EboC DATHE, H. H., KUCKELKORN, B., and MINNEMANN, D. (1992). Salivary cortisol assessment for stress detection in the Asian elephant (*Elephas maximus*): a pilot study. Zoo Biology, 11(4):285-289.
- 3206 EbcW DATYE, H. S. and BHAGWAT, A. M. (1995). Estimation of crop damage and the economic loss caused by elephants and its implications in the management of elephants. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 375-388. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3207 EbcW DATYE, H. S. and BHAGWAT, A. M. (1995). Man-elephant conflict: a case study of human deaths caused by elephants in parts of central India. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 340-349. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3208 EceW DATYE, Hemant S. and BHAGWAT, A. M. (1995). The status and conservation of Asian elephant (*Elephas maximus*) in the state of Bihar, India. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 49-65. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3209 LaoW DAUTH, J., DREYER, M. J., RAUBENHEIMER, E. J., MARE, L. K., and DE VOS, V. (1987). Blood lead levels in African elephant in the Kruger National Park. South African Journal of Wildlife Research, 17:134-135.
- 3210 LmwW DAVIES, Clare. (1996). Aerial census of elephant and other large mammals in north-west Matabeleland Zimbabwe, September 1994. Department of National Parks and Wild Life Management, Harare, 122 pp.
- 3211 LmwW DAVIES, Clare (compiler). (1996). Aerial census of elephant and other large mammals in north west Matabeleland and Gonarezhou regions of Zimbabwe, August/September 1996. Department of National Parks and Wild Life Management, Harare, 95 pp.
- 3212 LmwW DAVIES, Clare, CRAIG, G. Colin, MACKIE, Charles S., CHIMUTI, Tapera, GIBSON, D. St. C. (1996). Aerial census of elephant and other large mammals in the Gonarezhou, Zambezi Valley, North-west Matabeleland, Sebungwe, Dande and communal land regions of Zimbabwe, July to November, 1995. Department of National Parks and Wild Life Management, Harare, 136 pp.
- 3213 \*gvU DAVIS, Leo Carson and BALL, Kenneth M. (1991). Pleistocene mammals from the south Sulphur River, Hunt County, Texas. Proceedings, Arkansas Academy of Science, 45:22-24.
- 3214 EgjW DAVIS, Peter. (1994). Shaking the faith. Professional Photography in Australasia, 50(1):45-48. **Annotation:** Exposure to tragic and bizarre aspects of human condition is part of the job for journalists and photographers. Attendance at "Ganesha" (elephant headed god) festivals in New South Wales, Australia [E/ECM].
- 3215 EmwW DAWSON, S. (1990). A model to estimate density of Asian elephants (*Elephas maximus*) in forest habitats. MSC thesis, University of Oxford.
- 3216 EmwW DAWSON, Shanthini. (1993). Estimating elephant numbers in Tabin Wildlife Reserve, Sabah, Malaysia. Gajah, 11:16-28. **Annotation:** Study using dung-based estimates in tropical rain forest and effectiveness analyzed [JLP].
- 3217 EcwW DAWSON, S. and BLACKBURN, T. M. (1991). Asian elephant threatened. Nature, 352(6333):274.
- 3218 EmwW DAWSON, S. and DEKKER, A. J. F. M. (1992). Counting Asian elephants in forests. A Techniques Manual. RAPA, FAO, Bangkok, 56 pp.
- 3219 LcwW DAY, Susie. (1995). Mwaluganje Elephant Sanctuary. Swara, 18(4):31. **Annotation:** Mwaluganje Elephant Sanctuary, at the foot of northern boundary of Shimba Hills, is Kenya's first community involved game park [E/ECM].
- 3220 EaoC DE ALWIS, G. H. K., WIJESEKERA, R. D., PERERA, N. D. N., and RATNASOORIYA, W. D. (1997). Total protein and albumin levels in the plasma of the captive Sri Lankan elephant (*Elephas maximus maximus*). Proceedings of the 53rd Sessions of the SLAAS, p. 631.
- 3221 EaoU DE ALWIS, G. H. K., WIJESEKERA, R. D., PERERA, N. D. N., RATNASOORIYA, W. D., and KODIKARA, D. S. (1996). Triglyceride and uric acid levels in the plasma of Sri Lanka elephants (*Elephas maximus maximus*). Proceedings of 52nd Sessions of the SLAAS, p. 210.
- 3222 BcwW DE ALWIS, Lyn. (1991). Tourism and national parks. In The illustrated encyclopedia of elephants (consult. ed. S. Keith Eltringham) pp. 174-177. Crescent Books, New York, 188 pp.
- 3223 EtcC DE ALWIS, Lyn. (1991). Working elephants. In The illustrated encyclopedia of elephants (consult. ed. S. Keith Eltringham), pp. 116-129. Crescent Books, New York, 188 pp.

- 3224 EcwW DE ALWIS, Lyn. (1994). Asian Elephant Specialist Group. *Species*, 21/22:34-35.
- 3225 EchB DE ALWIS, Lyn. (1995). Saving the Asian elephant in the wild — historical and current perspectives. *Abstracts, The Wildlife Society, Second Annual Conference*, Portland, Oregon, USA, September 12-17, 1995, p. 34.
- 3226 EcwW DE ALWIS, Lyn. (1996). IUCN/SSC Asian Elephant Specialist Group (AESG) strategic plan. *Gajah*, 16:1-8.
- 3227 EcwW DE ALWIS, Lyn and SANTIAPILLAI, C. (1993). Comment. *Gajah* (Colombo), 10:3. **Annotation:** Translocation, captivity, movements, ecology, habitat in Sri Lanka [ECM].
- 3228 LbcW DE BOER, Willem F. and BAQUETE, Dulcinea S. (1998). Natural resource use, crop damage and attitudes of rural people in the vicinity of the Maputo Elephant Reserve, Mozambique. *Environmental Conservation*, 25(3):208-218.
- 3229 LbwW DE BOER, Willem F. and PRINS, H. H. T. (1990). Large herbivores that strive mightily but eat and drink as friends. *Oecologia*, 82:264-274. **Annotation:** Observations of grazing interactions among four large herbivores: elephant, African buffalo, Burchell's zebra and wildebeest in LMNP concluded small habitat overlap associated with interspecific competition and large overlap associated with symbiosis. On daily basis, buffalo and elephant visits occur randomly. With simultaneous arrival, they seem to compete. When buffalo grazed prior to elephants' arrival, the latter's consumption was lowered. Clear negative influence of grazing pressure by buffalo on that of elephants in this restricted area [ID-H/M&DR].
- 3230 LcwW DE FERRARI, G., HEMLEY, G., HOOVER, C., and JONES, J. M. (1997). Summary report on the 1997 CITES conference. *TRAFFIC USA*, 16(2):1-5.
- 3231 LicW DE GRAAFF, G. (1993). CITES & NPB: Ivory - to sell or not to sell? *Custos*, August:42-45.
- 3232 LvjW DE GRAAFF, G. (1993). Elephants and their kin in time. *Custos*, August:9-12.
- 3233 LbwW DE GRAAFF, G. (1993). Habitat preferences of the African elephant. *Custos*, August:26-29.
- 3234 \*vjU DE JONG, Theo. (1998). Topstukken uit de diepte prehistorische dierenresten uit Noord Brabant. *Cranium*, 15(2):84-110 [in Dutch, summaries in Dutch and English]. **Annotation:** Prehistoric animal species and places where remains found. More than a hundred species left traces in Noord-Brabant, mammals, birds, reptiles, amphibians, fishes. Proboscideans found are *Anancus arvernensis*, *Mammuth borsoni*, *Mammuthus meridionalis*, *M. primigenius*, *Elephas antiquus*, [E/ECM].
- 3235 BvoB DE JONG, W. W., LEUNISSEN, J. A. M., and WISTOW, G. J. (1993). Eye lens crystallins and the phylogeny of placental orders: evidence for a macroscelid-paenungulate clade. In *Mammal phylogeny: placentals* (ed. F. S. Szalay, M. J. Novacek, and M. C. McKenna), pp. 5-12. Springer-Verlag, New York, 321 pp.
- 3236 LiuW DE MEULENAER, Tom. (1989). The ivory trade in Belgium. In *The ivory trade and the future of the African elephant* (coord. S. Cobb), Vol. 2, Technical Reports, Section 3.3. The Ivory Trade Review Group, Oxford. **Annotation:** Data from 1979 - 1984, reviews Belgium's ivory import and export trade including large scale use of Belgium as forwarding agent. Change in trade and traders over past decades, illegal aspects [ID-H/M&DR].
- 3237 LiuW DE MEULENAER, Tom and MEREDITH, Martin. (1989). The ivory trade in Zaire. In *The ivory trade and the future of the African elephant* (coord. S. Cobb), Vol. 2, Technical Reports, Section 2.6. The Ivory Trade Review Group, Oxford. **Annotation:** Zaire has one of the largest elephant populations. Large amount of ivory obtained in this area. Much trade is illegal. Little ivory is recorded as exported from the country itself. Most leaves Africa via of Chad, Cameroon, Nigeria, Ethiopia and various West African countries. Ivory Coast carving industry is supported by Zairean raw material. As much as 36% of all raw ivory exported from Africa in 1980s originated in Zaire [ID-H/M&DR].
- 3238 — Reference of DE SILVA deleted, see Reference nos. 5184 and 5185.
- 3239 EapB DE SILVA, I. and KURUWITA, V. Y. (1994). The osmotic fragility of erythrocytes of the Asian elephant (*Elephas maximus*). *Gajah*, 13:25-29.
- 3240 EcwW DE SILVA, M. (1998). Status and conservation of the elephant (*Elephas maximus*) and the alleviation of man-elephant conflict in Sri Lanka. *Gajah*, 19:1-78 [in English and Sinhala]. **Annotation:** Special issue: man-elephant conflict in Sri Lanka. In long-term conservation planning, elephants should be considered a biological species that evolves. Needs of elephants should be considered, but peoples' needs also. Goal should be to maintain elephant population at present level. Traditional human activities could continue as long as they do not interfere with welfare of the elephants [E/ECM].
- 3241 EecW DE SILVA, M. and ATTAPATTU, N. (1997). *Alleviation of wild elephant-human conflict and conservation of elephant in the north-western region of Sri Lanka*. Department of Wildlife Conservation, Colombo, 125 pp.
- 3242 EewW DE SILVA, M., JAYARATNE, B. V. R., and DE SILVA, P. K. (1995). The status and other ecological aspects of the elephant population in Ruhuna National Park, Sri Lanka. *Journal of South Asian Natural History*, 1(2):185-202.
- 3243 EewW DE SILVA, M., JAYARATNE, B. V. R., and DE SILVA, P. K. (1997). A study of elephant movements in Ruhuna National Park, Sri Lanka. *Journal of South Asian Natural History*, 2(2):183-198.
- 3244 EcjW DE SILVA, Mangala, SANTIAPILLAI, Charles, and DISSANAYAKE, S. R. B. (1998). Ecological observations on the elephant population in Ruhuna National Park, Sri Lanka. Abstract presented at *National Symposium on Elephant Management and Conservation* (ed. Jayantha Jayewardene and Charles Santiapillai), p. 14. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 3245 LrjW DE VILLIERS, David J. (1989). Musth and reproduction in the African elephant (*Loxodonta africana*). MSc, University of Pretoria.
- 3246 LraB DE VILLIERS, David J., SKINNER, J. D., and HALL-MARTIN, Anthony J. (1989). Circulating progesterone concentrations and ovarian functional anatomy in the African elephant (*Loxodonta africana*). *Journal of Reproduction and Fertility*, 86(1):195-201.
- 3247 LnbW DE VILLIERS, P. A. and KOK, O. B. (1988). Eto-ekologiese aspekte van Olifante in die Nasionale Etoshawildtuin. *Madoqua*, 15(4):319-338 [in Afrikaans]. **Annotation:** Plant surveys made to determine relative availability of food. *Colophospermum mopane* found to be single most important component in elephant diet. Seasonal movements characterized by concentration around watering places in dry seasons; daily activities influenced by availability of sufficient shade [ID-H/M&DR].
- 3248 LwjW DE VILLIERS, P. A. and KOK, O. B. (1997). Home range, association and related aspects of elephants in the eastern Transvaal Lowveld. *African Journal of Ecology*, 35(3):224-236.
- 3249 LnmW DE VILLIERS, P. A., PIETERSEN, E. W., HUGO, T. A., MEISSNER, H. H., and KOK, O. B. (1991). Method of sampling food consumption by

- free-ranging elephant. South African Journal of Wildlife Research, 21(1):23-27. **Annotation:** Estimation of 'bite' size formed basis of technique to sample food consumption of free-ranging bull elephants on private ranch bordering KNP. Two and three-dimensional measurements of leaves and bark eaten can be determined directly from branches and roots, in some cases indirect measurements can be taken from similar plant structures in immediate vicinity [ID-H/M&DR].
- 3250 \*evU DE VOS, J. (1988). Pleistocene larger mammal faunas of the Indonesian Archipelago and their paleo-ecological and paleogeographical implications. Proceedings of the International Conference "Early man in island environments", 25 settembre-2 ottobre 1988, Oliena, Sardegna. **Annotation:** See Reference no. 2522 [ECM].
- 3251 LdeW DE VOS, V. (1990). The ecology of anthrax in the Kruger National Park. Salsbury Medical Bulletin, 68:19-23.
- 3252 LkcW DE VOS, V. and HATTINGH, J. (reprinted 1994). An evaluation of culling techniques for free-ranging African elephant (*Loxodonta africana*). In The African elephant as a game ranch animal, pp. 53-63. SAVA [South African Veterinary Association] Wildlife Group, Onderstepoort, South Africa, 192 pp.
- 3253 LqtC DE VREEDE, Matthijs. (1995). African elephant power in 1910. Swara, 18(6):34. **Annotation:** Adolph Friedrich Herzog zu Mecklenburg headed the German Central Africa Expedition, exploring central African in 1910-11, visited station Api to look at what must have been one of the first attempts of wildlife utilization by colonial powers in Africa - the use of elephants as draft animals. See Reference nos. 1675, 3539, 3800, 3801, 3951, 5209, 5631, 5632 [E/ECM].
- 3254 LgjW DE WAAL, F. (1996). Good natured: the origins of right and wrong in humans and other animals. Harvard University Press, Cambridge (Massachusetts), 296 pp. **Annotation:** Behavior, ethology, altruism, selfishness, sociobiology, aggression, guilt, shame, morality mostly in primates and man; has examples about African elephants [MPK].
- 3255 \*ayU DE WIT, Walter. (1993). Expositie Siberische Mammoeten. Cranium, 10(1):4.
- 3256 LicW DEANE, D. (1990). The end of the ivory trade. Newsweek, [16 Jul 90]:35.
- 3257 LiuW DEARLOVE, T. (1993). The elephants of Addo—their story. Fish Eagle, Dec 93/Jan 94:58-59.
- 3258 EumW DEB ROY, S. (1993). The sad status of elephants in southern Assam, India. Gajah, 11:53-54. **Annotation:** Obliteration of elephant herds in one district and heavy poaching in another [JLP].
- 3259 LdaC DEER, Carol. (1995). A casting episode in an African elephant. Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 4 unnumbered pages.
- 3260 EcuW DEHUA, Yang. (1992). The status of elephants in China. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), p. 176. Rodale Press, Emmaus, Pennsylvania, 240 pp. Also, Simon & Schuster, London. **Annotation:** Vernacular names, food, poaching, ivory, conservation, movements, Yunnan, Myanmar (formerly Burma), Laos [MPK].
- 3261 BgjB DEKKER, A. J. F. M. and DAWSON, S. (1992). Elephant. Wildlife Institute of India. Dehra Dun.
- 3262 BmcW DEKKER, A. J. F. M., DAWSON, Shanthini, and DESAI, Ajay A. (1991). An indirect method for counting Asian elephants in forests. IUCN/SSC Asian Elephant Specialist Newsletter, 7:12-20. **Annotation:** Applying methodology of Barnes and Jensen (dung counts in forests) to censusing Asian groups, in AESG workshop [JLP].
- 3263 +gjB DELORT, Robert. (1990). Les éléphant piliers du monde. Découvertes Gallimard, Histoire Naturelles, Evreux (France). [English translation published in 1992 by Abrams, New York, as "The life and lore of the elephant"] 192 pp. and New Horizons, London, Thames and Hudson Ltd, 191 pp. **Annotation:** Concise source of information, appears accurate. Hannibal's use of elephants in war pp. 82-85. Reviewed in "Animal Keepers' Forum", 24(5):6, by Penny L. Cram; cf. Reference no. 3150. Reminds me of the book that got me so interested in elephants by Richard Carrington, Reference no. 1663 [JS]. French version has great color illustrations, paintings [MPK]. Reviews relationships between man and elephants in mythology and through history, outlines the animals' utility in different locations and different times. Hunting, domestication, use as work animal in war and industry, general ecology, population losses due to ivory trade and recent aspects of conservation [ID-H/M&DR].
- 3264 LgwW DELVINGT, Willy, HEYMANS, Jean Claude, and SINSIN, Brice. (1989). L'éléphant *Loxodonta africana*. In Guide du Park National de la Pendjari. AGRER/EEC, Brixelles, 69 pp.
- 3265 EwcW DENDY, T. (1987). The value of corridors (and design features of same) and small patches of habitat. In Nature conservation: the role of remnants of native vegetation (ed. D. A. Saunders, G. W. Arnold, A. A. Burbidge, and A. J. M. Hopkins), pp. 357-359. Surry Beatty and Sons. Pvt. Ltd. Sydney, xiii + 410 pp.
- 3266 +ovB DERENKO, Miroslava, MALYARCHUK, Boris, and SHIELDS, Gerald F. (1997). Mitochondrial cytochrome b sequence from a 33 000 year-old woolly mammoth (*Mammuthus primigenius*). Ancient Biomolecules, 1(2):149-153. **Annotation:** Present 331 nucleotides of cytochrome b gene from a mammoth taken from permafrost in northeastern Siberia. Compared sequence to 223 nucleotides of four other mammoths, a mastodon, two Asian and two African elephants. Phylogenetic conclusions are inconclusive [E/ECM, abstract].
- 3267 \*vwU DERMITZAKIS, M. D. and DE VOS, J. (1987). Faunal succession and the evolution of mammals in Crete during the Pleistocene. Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen, Stuttgart, 173:377-408.
- 3268 BboB DERSHOWITZ, A. M. (1994). View from the top: justice. Penthouse, 26(3):32. **Annotation:** 'roid rage', uncontrollable outbursts of anger and violence in body-builders from too much steroid.....sounds similar to 'musth' in bull elephants [MPK].
- 3269 EwcW DESAI, A. A. (1991). The home range of elephants and its implications for management of the Mudumalai Wildlife Sanctuary, Tamil Nadu. Journal of the Bombay Natural History Society, 88(2):145-156.
- 3270 EgcB DESAI, Ajay. (1997). The Indian elephant: endangered in the land of Lord Ganesha. Vigyan Praser & Sanctuary Magazine, Mumbai: distributors, UBS Publisher, New Delhi, 65 pp.
- 3271 EbrW DESAI, Ajay A. and JOHNSINGH, A. J. T. (1995). Social organization and reproductive strategy of the male Asian elephant (*Elephas maximus*) [Abstract]. In A week with elephants (ed. J. C. Daniel and H. S. Datye), p. 532. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3272 EbwW DESAI, Ajay A., JOHNSINGH, A. J. T., and JOSHUA, Justus. (1995). Techniques for the study of ranging behaviour of the Asian elephant (*Elephas maximus*) [Abstract]. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 532-533. Bombay Natural History

- Society/Oxford University Press, Bombay, 535 pp.
- 3273 BqtC DESMOND, Tim and LAULE, Gail. (1991). Protected-contact elephant training. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 84-91. Burnet Park Zoo, Syracuse, 161 pp.
- 3274 BtqC DESMOND, Tim and LAULE, Gail. (1995). Converting elephant programs to protected contact. Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 7 unnumbered pages.
- 3275 EbcW DEY, S. C. (1991). Depredation by wildlife in fringe areas of North Bengal Forests with special reference to elephant damage. Indian Forester, 117(10).
- 3276 EnbW DHAKAL, G. and OJHA, N. P. (1995). Studies on diet preferences of the elephant (*Elephas maximus*) in Royal Chitwan National Park. Tigerpaper, 22(4):29-31. **Annotation:** Investigation to learn diet preferences of elephants in RCNP, methods of direct observation, weighing diet items used. Results indicated elephants have wisdom to select their diet, have preferences for every month and season [E/ECM].
- 3277 EkcW DHARMASENA, C. (1990). An elephant drive in Mahaweli System C. Loris, 11(2):67-69.
- 3278 EqtC DHUNGEL, S., BRAWNER, C., and YODER, J. (1990). Elephant training and management in Nepal. Tigerpaper, 17(4):1-6.
- 3279 \*vjU DIAMOND, Jared M. (1987). Did Komodo dragons evolve to eat pygmy elephants? Nature, 326(April, 1987):832. **Annotation:** There is no paleontological evidence for hypothesis that Komodo dragons (*Varanus komodoensis*) consumed pygmy stegodons (*Stegodon trigonocephalus florensis*, *S. sompoensis*, *S. timorensis*), about 1.5 meters tall, although they have been observed to prey on large mammals such as deer. Author relies mainly on work of Auffenberg (1981, cited in article), who inferred that this lizard, an ambush feeder, probably grew to be the largest living lizard (up to 3 meters long, over 100 kg in weight) as evolutionary strategy, relating size of predator with size of prey [JS].
- 3280 \*vjU DIAMOND, Jared M. (1992). The evolution of dragons. Discover, 13(12):72-77, 80. **Annotation:** Interesting thesis on cost and gain of thermoregulation. In Indonesia, the giant, cold-blooded, man-eating monsters have not only survived, they've climbed to top of carnivore heap. Author says they may have eaten pygmy proboscideans (species of extinct 'elephant'). See Reference no. 5264 [ECM].
- 3281 LiuW DICKEY, Christopher. (1990). A land called slaughter. Rolling Stone, Oct. 4:100-102, 104, 106, 108-109, 170. **Annotation:** In effort to save the last of the elephants, man hunts man in Kenya's great game parks [ECM].
- 3282 BnoC DIERENFELD, Ellen S. (1989). Vitamin E in elephants — a research update. Proceedings of the Annual Elephant Workshop, 10:60-63.
- 3283 BnqC DIERENFELD, Ellen S. (1994). Nutrition and feeding. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 69-79. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 3284 BnpB DIERENFELD, Ellen S. (1994). Vitamin E in exotics: effects, evaluation and ecology. Journal of Nutrition, 124(125), Supplement 12:2579S-2581S. **Annotation:** "Numerous cases of vitamin E deficiency have been diagnosed in zoo and wildlife species... Vitamin E status in captive and free-ranging animals is assessed from concentration of circulating plasma  $\alpha$ -tocopherol ( $\alpha$ -toc) levels using high performance liquid chromatography (HPLC) techniques." Elephants and rhinos on p. 2580S [E/ECM, abstract].
- 3285 BnqC DIERENFELD, Ellen S. (1995). Nutrition and feeding. Journal of the Elephant Managers' Association, 6(3):32-39.
- 3286 EnoC DIERENFELD, Ellen S. and DOLENSEK, E. P. (1988). Circulating levels of vitamin E in captive Asian elephant (*Elephas maximus*). Zoo Biology, 7(2):165-172.
- 3287 \*vwU DILLEHAY, Thomas D. (1989). Researching early sites. In Monte Verde: a late Pleistocene settlement in Chile. Vol. 1, Paleoenvironment and site context (ed. T. D. Dillehay), pp. 1-25. Smithsonian Institution Press, Washington, D.C., 306 pp.
- 3288 \*vwU DILLEHAY, Thomas D. (ed.). (1989). Monte Verde: A late Pleistocene settlement in Chile. Vol. 1, Paleoenvironmental and site context. Smithsonian Institution Press, Washington, D.C., 306 pp.
- 3289 \*hvU DILLEHAY, Thomas D. and COLLINS, M. B. (1988). Early cultural evidence from Monte Verde in Chile. Nature, 332:150-152.
- 3290 EqtC DINERSTEIN, E. (1988). Elephants, the original all-terrain vehicles. Smithsonian, 19(6):70-6, 78, 80-81.
- 3291 LuiW DI SILVESTRO, Roger L. (1988). Nature stories: U.S. demand for carved ivory hastens African Elephant's end. Audubon, March 1988:14.
- 3292 LiuW DI SILVESTRO, Roger L. (1992). Hatari, watembo: Africa's elephants at risk. In Rebirth of nature: new hope for endangered habitats, pp. 197-228. John Wiley & Sons, New York. **Annotation:** Focuses on African elephants whose population has declined by 50% continent wide, as much as 95% in some areas. Elephants were killed by poachers to supply ivory markets primarily in Japan, United States and Europe. Loss of elephants could have dramatic impact on tourism, especially in Kenya and Tanzania, and may affect rapidly with which trees and shrubs encroach savannas emptied of elephants [ID-H/M&DR].
- 3293 LgcW DI SILVESTRO, Roger L., PALMER, Christopher N., and CHICHESTER, Page. (1991). The African elephant: twilight in Eden. John Wiley & Sons, New York, xvii + 206 pp. **Annotation:** Foreword by Richard Leakey. Tells the story of mankind's relationship with African elephants from prehistoric cave paintings to ongoing ivory trade which can be traced back for at least 2,000 years. Covers biology and natural history of elephants, and Kenya's struggle against ivory poaching. Includes 130 photographs of elephants and their habitat [ID-H/M&DR].
- 3294 EwcW DISSANAYAKE, S. R. B. (1992). Seasonal changes in population structure, movement pattern and activity of elephants in the Ruhuna National Park, Sri Lanka. In: Proceedings of the IUCN/SSC Asian Elephant Specialist Group meeting, Bogor, Indonesia 20 May 1992. Asian Elephant Conservation Centre, Bangalore, India.
- 3295 EljW DISSANAYAKE, S. R. B. (1994). Elephant mortality in Uda Walawe National Park, Sri Lanka. Gajah, 13:57-58.
- 3296 EcbW DISSANAYAKE, S. R. B., DE SILVA, Mangala, and SANTIAPILLAI, Charles. (1998). A study of human-elephant conflict in system G of the accelerated Mahaweli development programme, Sri Lanka. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), pp. 10-11. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 3297 EcwW DISSANAYAKE, Sarath, SUMANASENA, A. H., PADMASIRI, Upali, JAYAMANE, H. P., BANDARANAYAKE, Chandra, KUMARI DE SILVA, Padma, and SANTIAPILLAI, Charles. (1992). Population structure, activity, and density of elephants in the Ruhuna National Park, Sri Lanka. Asian Elephant Specialist Group Newsletter, 8:4-19. **Annotation:** Increase of 29% in study block since 1980 may be due to influx from

- other blocks. Adult sex ratio was 1:2.1. No tuskers were seen, possibly due to guerrilla activity and poaching [JLP].
- 3298 **LcwW** DOBB, Liz. (1993). A world first - the translocation of adult African elephants in Zimbabwe [an interview with Clem Coetzee]. *Zimbabwe Wildlife*, 71:14-15.
- 3299 **\*avU** DÖBERT, Dominik. (1992). De vondst van de maand: fund eines underkiefers vom *Mammut* mit dm1, dm2 und anlage vom dm3. *Cranium*, 9(2):113-114.
- 3300 **EcwW** DOBSON, Andrew. (1992). Effect of fertility control on elephant population dynamics. *Paper presented at the NCCR (National Centre for Research in Reproduction) Elephant Reproduction Symposium, May 1992, Nairobi*, pp. 293-298.
- 3301 **LcuW** DOBSON, Andrew P. and POOLE, Joyce H. (1992). Ivory: why the ban must stay! *Conservation Biology*, 6(1):149, 151. **Annotation:** Assesses range states' ability to control elephant poaching and ivory trade if ban were lifted for southern African countries. Suggests economic analysis, as written in "Elephants, economics and ivory", by Barbier *et al.* (Reference no. 2792) does not take into account population dynamics of elephants, relationship between legal and illegal ivory or difficulties of law enforcement at all levels of trade [ID-H/M&DR].
- 3302 **\*gvU** DOMNING, Daryl Paul. (1996). Bibliography and index of the Sirenia and Desmostylia. *Smithsonian Contributions to Paleobiology*, 80:1-611. **Annotation:** Most comprehensive, up-to-date bibliography on these mammalian orders. Includes proboscidean taxa [JS].
- 3303 **BjwW** DOR, Menachem. (1987). *Zoological lexicon: Vertebrata*. Dvir Publishers, Tel-Aviv (Israel), 2 volumes, 807 pp. [in Hebrew].
- 3304 **EcwW** DORIS DAY ANIMAL LEAGUE. (1990). Elephants in our midst: the fight to end zoo abuse. *Animal Guardian*, 3(2):5-6, 7, 10. **Annotation:** Elephants are less than safe in captivity; there has been steady increase of allegations of elephants being mistreated in U.S. zoos and circuses [ECM].
- 3305 **EcwW** DORJI, Paljor J. (1997). Status, distribution and conservation of the Asian elephant in Bhutan. *Tigerpaper*, 24(1):1-3. **Annotation:** In 1995, Bhutan ratified the convention on biodiversity and the one on climate change to demonstrate its commitment to conservation. Bhutan has seriously committed itself to conserving diverse ecosystems and species, including endangered Asian elephant [E/ECM].
- 3306 **LraW** DOTT, H. M. and SKINNER, J. D. (1989). Collection, examination and storage of spermatozoa from some South African mammals. *South African Journal of Zoology*, 24(2):151-160.
- 3307 **LiuW** DOUGHERTY, Nigel. (1992). Debate at the 1992 CITES conference. *Swara*, 15(3):11-13. **Annotation:** Ivory debate at 1992 CITES conference in Kyoto, Japan, on proposal by southern African countries to downlist elephant populations from Appendix I to Appendix II of the convention, so they can trade ivory and ivory products. Arguments by proponents and opponents outlined [ID-H/M&DR].
- 3308 **LcwW** DOUGHERTY, Nigel. (1994). Nigeria's elephants: characterizing pachyderm problems in West Africa. *Swara*, 17(2):25-27. **Annotation:** "Like many West African countries, Nigeria's fragmented populations of cyclotiform (forest) elephants still live in a few patches of what is left of the region's unique-and exceptionally beautiful low-land Guinean rainforest" [E/ECM]. Prospects for survival of remaining small isolated elephant herds in Nigeria are examined. It is concluded that only elephants in five of ten areas are likely to survive because of human population pressure and habitat loss due to logging, farming and hunting. Population most likely to survive is in YGR in Bauchi State with a herd of 400 [ID-H/M&DR].
- 3309 **LiwW** DOUGLAS-HAMILTON, Iain. (1988). Elephant monitoring and conservation. *GRID News*, 1(3):4-5. **Annotation:** Continuing international effort to monitor African elephant population since 1976 culminated with geo-referencing of these populations into GIS database housed in GRID offices of UNEP. Outlines overall loss of elephant populations due to ivory poaching, suggests that ability to monitor populations on geographical region, country and area basis holds hope for international action, may stem loss of population and provide needed assistance to countries to maintain this species [ID-H/M&DR].
- 3310 **LiuW** DOUGLAS-HAMILTON, Iain. (1988). The great East African elephant disaster. *Swara*, 11(2):8-11. **Annotation:** Reports on decline of elephant in East Africa due to poaching for ivory between 1973 and 1987. In Uganda from 17,600 to 1,800, in Kenya from 130,000 to 19,000 and in Tanzania from 185,000 to 87,000. In Uganda the fall was most dramatic in early 1970s when Amin's men looted national parks for ivory. In Kenya, number of elephants lost was slower but greater in numbers, while in Tanzania, although collapse started later, actual numbers lost was the largest [ID-H/M&DR].
- 3311 **LiuW** DOUGLAS-HAMILTON, Iain. (1988). The Lake Manyara elephants. *Swara*, 11(2):12. **Annotation:** Reviews recent drastic decline in LMNP elephant population, as ascertained from aerial surveys. November 1987 count noted only 181 elephants and counted 94 carcasses. Changes in behavior of elephants are mentioned. Price of ivory coupled with problem of poaching and lack of effective anti-poaching operations are noted [ID-H/M&DR].
- 3312 **EcwW** DOUGLAS-HAMILTON, Iain. (1989). Overview of status and trends of the African elephant. In *The ivory trade and the future of the African elephant* (coord. S. Cobb), Vol. 2, Technical Reports, Section 1.1. The Ivory Trade Review Group, Oxford. **Annotation:** Reviews information regarding elephant population estimates obtained for range states since beginning of present period of interest in 1976. Tables associated with GIS compiled maps provide estimated range area plus population, density and trends within regions by country [ID-H/M&DR].
- 3313 **EcwW** DOUGLAS-HAMILTON, Iain. (1992). The African elephant population today. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 178-183. Rodale Press, Emmaus (Pennsylvania), 240 pp. **Annotation:** Outlines monitoring and assessment of African elephant populations leading to 1989 ban on international ivory trade. Notes need to maintain monitoring and ban throughout continent for some time to develop management programs and activities to ensure survival of the species [ID-H/M&DR].
- 3314 **EcwW** DOUGLAS-HAMILTON, Iain. (1992). In defense of the ivory trade ban. *Oryx*, 26(2):1-4. **Annotation:** Reviews status of elephant populations since ivory ban in 1989. Advocates removal of elephant populations of southern African countries from Appendix I and outlines reasons why this situation would cause overall maintenance of elephant populations as a whole to be very difficult, if not impossible [ID-H/M&DR].
- 3315 **EcwW** DOUGLAS-HAMILTON, Iain. (1992). Methods of estimating elephant numbers. *Elephant and Ivory Information Service*, 20:1-4.
- 3316 **LmwW** DOUGLAS-HAMILTON, Iain. (1993). The African elephant database. *Pachyderm*, 16:82-83. **Annotation:** Many years accumulated data, a precursor to later studies such as that of Said *et al.* (1995) [JS].



- 3317 BciW DOUGLAS-HAMILTON, Iain. (1993). You can help elephants. *Wildlife Conservation*, 96(2):74-75. **Annotation:** Questions what to do to save elephants symbolizes question of what humans do to the globe itself. A ban on ivory may be only way to conserve elephants. Wildlife conservation must tie into management to benefit local community economy [ID-H/M&DR].
- 3318 LjcW DOUGLAS-HAMILTON, Iain. (1995). The African elephant: population dynamics, perceptions, and politics *Abstract, The Wildlife Society, Second Annual Conference*, Portland, Oregon, USA, September 12-17, 1995, p. 39.
- 3319 LmnW DOUGLAS-HAMILTON, Iain. (1996). Counting elephants from the air - total counts. In *Studying elephants* (ed. Kadzo Flora Kangwana), pp. 28-37. African Wildlife Foundation, Nairobi, Kenya, 178 pp. AWF Technical Handbook Series, vol. 7. **Annotation:** Total aerial elephant counts often used for population estimates. Aim of total count is to scan entire surface of selected census area, and to record position and number of each elephant or group of elephants within the area. Reviews aircraft and crew, flight patterns, procedures, problems, experimental blocks for accuracy, value of routine post-flight procedures [ID-H/M&DR].
- 3320 LcwW DOUGLAS-HAMILTON, Iain. (1997). Proposal for "green hunting" of elephants as an alternative to lethal sport hunting. *Pachyderm*, 24:30-32.
- 3321 LmcW DOUGLAS-HAMILTON, Iain. (1998). Tracking African elephants with a Global Positioning System (GPS) radio collar. *Pachyderm*, 25:81-92 [in English with English and French abstracts]. **Annotation:** GPS technology promises improved radio tracking with frequent and accurate fixes. A prototype collar was tested in 1995 and worked for ten days giving two fixes per 24 hours. An improved collar was tested in 1996-97 in and around ANP on two bulls [E/ECM].
- 3322 LmwW DOUGLAS-HAMILTON, Iain and BARNES, Richard F. W. (1989). Elephant numbers and trends: a brief summary report. In *The ivory trade and the future of the African elephant*. interim report (coord. Steven Cobb). Chapter 2.1, 2 pp. **Annotation:** Present data regarding elephant population reviewed. compared with 1987 estimates by Burrill and Douglas-Hamilton. Population 622,648 for 1989 compared to 734,033 for 1987. Regional figures: Central Africa 278,113 compared to 334,050; Eastern Africa 125,553 compared to 157,586; Southern Africa 203,313 compared to 218,031; West Africa 15,670 compared to 24,365 [ID-H/M&DR].
- 3323 LmcW DOUGLAS-HAMILTON, Iain and BURRILL, Anne. (1991). Using elephant carcass ratios to determine population trends. In *African Wildlife: Research and Management* (ed. F. I. B. Kayanja and E. L. Edroma), pp. 98-105. **Annotation:** Successive counts of dead and live elephants in central, east and southern Africa used to plot population trends against carcass ratios. Carcass ratio could be correlated with rate of decrease over a 4 year period. Model applied to new census data from a specific area and found close prediction of actual trends. Model works well only for wet areas, but shows usefulness as management tool [ID-H/M&DR].
- 3324 LcuW DOUGLAS-HAMILTON, Iain and DOUGLAS-HAMILTON, Oria (ed. B. Jackman). (1992). *Battle for the elephants*. Doubleday, London, 368 pp. Also Viking Penguin, New York. **Annotation:** Details on poaching, ivory trade, politics in Africa and at IUCN and CITES important documentation [PFH]. Personal tale of 20 years support of elephants' struggle for existence. Describes moving from scientific study to campaigning for elephants including confrontations with fellow conservationists, encounters with poachers in the field. Documents loss of African elephant populations and habitat over previous two decades culminating in ban of international ivory trade in 1989 [ID-H/M&DR]. Reviewed by S. Keith Eltringham in "Oryx", July, 1993.
- 3325 LwhW DOUGLAS-HAMILTON, Iain and MICHELMORE, Frances. (1996). *Loxodonta africana*: range and distribution, past and present. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 321-326. Oxford University Press, 472 pp. **Annotation:** Reviews earlier accounts on African elephants in the wild; 1991 population estimates are 549,000-652,000 [JS].
- 3326 — Reference deleted.
- 3327 LigW DROSCHER, V. B. (1990). *Rettet die elefanten Afrikas*. Rasch und Rohring, Hamburg, 147 pp. **Annotation:** Social behavior, role in ecosystem, physiology and evolutionary development, research methods to investigate forest elephant, poaching in eastern and southern Africa, CITES convention and African Elephant action plan to preserve elephants [ID-H/M&DR].
- 3328 BorC DRYSDALE, Thomas A. and FLORKIEWICZ, Robert F. (1989). Electrophoretic variation within and between the two extant elephant species (Mammalia: Proboscidea). *Journal of Mammalogy*, 70(2):381-383.
- 3329 LcjW DUBLIN, Holly T. (1991). Dynamics of the Serengeti-Mara woodlands: a historical perspective. *Forest and Conservation History*, 35:169-178.
- 3330 LeiW DUBLIN, Holly T. (1993). Chairman's report, African Elephant Specialist Group. *Pachyderm*, 16:11-13 [in English and French].
- 3331 LciW DUBLIN, Holly T. (1993). Chairman's report, African Elephant Specialist Group. *Pachyderm*, 17:5-7 [in English and French].
- 3332 LcwW DUBLIN, Holly T. (1994). Co-Chairman's report: African Elephant Specialist Group. *Pachyderm*, 18:22-25 [in English and French].
- 3333 LkcW DUBLIN, Holly T. (1994). In the eye of the beholder: our image of the African elephant. *Endangered Species Technical Bulletin*, 19(1):5-6. **Annotation:** Elephants, having escaped immediate extinction through ivory ban, face increasing conflict with rising human population. Both sides of culling controversy need to listen to each other [ID-H/M&DR].
- 3334 LiuW DUBLIN, Holly T. (1994). A re-assessment of the impact of the ivory ban on the illegal hunting of elephants. In *The African elephant in the context of CITES*. 19-23 September, 1994 Kasane Botswana. Part B Background Papers, London, United Kingdom. Department of the Environment, pp. 25-30. **Annotation:** Problems studying effects of ivory ban on elephant conservation, difficulties of realistically assessing status, obtaining clear estimates [ID-H/M&DR].
- 3335 LkcW DUBLIN, Holly T. (1994). Status and trends of the African elephant (*Loxodonta africana*). In *The African elephant in the context of CITES*. 19-23 September, 1994, Kasane, Botswana. Part B Background Papers, London, United Kingdom. Department of the Environment, pp. 19-24. **Annotation:** Notes extensive population loss in relatively recent times due to illegal ivory trade and loss of habitat coupled with land use conflict and increasing human population, the author reviews development of ongoing cooperative work regarding population estimates, and status and trends of populations [ID-H/M&DR].
- 3336 LciW DUBLIN, Holly T. (1995). Chairman's report: African Elephant Specialist Group. *Pachyderm*, 19:7-8.
- 3337 LcwW DUBLIN, Holly T. (1995). Chairman's report: African Elephant Specialist Group. *Pachyderm*, 20:8-9 [in English and French].
- 3338 LbwW DUBLIN, Holly T. (1995). Decline of the Mara woodlands: the role of fire and elephants [Abstract]. In *A week with elephants* (ed. J. C.

- Daniel and H. S. Datye), pp. 534-535. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3339 LcwW DUBLIN, H[olly]. T. (1995). Vegetation dynamics in the Serengeti-Mara ecosystem: the role of elephants, fire and other factors. In Serengeti II: dynamics, management and conservation of an ecosystem (ed. A. R. E. Sinclair and Peter Arcese), pp. 71-90. University of Chicago Press, total pages not provided, xii + 665 pp.
- 3340 LcgW DUBLIN, Holly T. (1996). Chairman's report: African Elephant Specialist Group. Pachyderm, 21:7-11.
- 3341 LcgW DUBLIN, Holly T. (1996). Chairman's report: African Elephant Specialist Group. Pachyderm, 22:4-5.
- 3342 LneW DUBLIN, Holly T. (1996). Elephants of the Masai Mara, Kenya: seasonal habitat selection and group size patterns. Pachyderm, 22:25-35.  
**Annotation:** Habitat, social relations, behavior, ecology, weather, food [MPK].
- 3343 LcgW DUBLIN, Holly T. (1997). Chairman's report: African Elephant Specialist Group. Pachyderm, 23:8-11 [in English and French].
- 3344 LcgW DUBLIN, Holly T. (1997). Chairman's report: African Elephant Specialist Group. Pachyderm, 24:1-6 [in English and French].
- 3345 LcgW DUBLIN, Holly T. (1998). Chairman's report: African Elephant Specialist Group. Pachyderm, 25:9-13 [in English and French].
- 3346 LmwW DUBLIN, Holly T. and DOUGLAS-HAMILTON, Iain. (1987). Status and trends of elephants in the Serengeti-Mara ecosystem. African Journal of Ecology, 25(1):19-33. **Annotation:** Two elephant censuses conducted in northern part SNP and MMGR in 1984. Wet season count 853 elephants in Mara, 367 in northern SNP, including Lamai wedge. Count in dry season 773 elephants in Mara. 756 in northern SNP. Comparison of data with long term census spanning period 1958-1977 showed elephants increased to 2,000 in SNP and 500 in Mara in 1965 and stabilized for over a decade. Carcass counts in Mara were 5% ratio and 38% in SNP, suggesting high poaching in latter region, compared to 13% in SNP and 32% in Mara in 1977 [ID-H/M&DR].
- 3347 LiuW DUBLIN, Holly T. and JACHMANN, Hugo. (1992). The impact of the ivory ban on illegal hunting of elephants in six range states in Africa. 31-35. World Wildlife Fund International Research Report, Gland, 75 pp. **Annotation:** This assessment of impact of ivory ban on elephant poaching focuses on major conservation aspects of six target countries: Zambia, Tanzania, Malawi, Cameroon, Ivory Coast, and Zaire. Data collected on law enforcement and rates of elephant poaching before and after ban. Though not statistically significant, there were noticeable decreases in poaching levels in five of the countries with Malawi having an increase. Finding is that where resources for law enforcement have significantly increased and properly channeled, poaching declined, however, donor funding to maintain such work has not continued and lower budgets result. Evidence of some illegal ivory trade noted in all six countries, but on dramatically reduced scale. Data collected on ivory scanty and sometimes contradictory. Study was unable to statistically demonstrate effects of ban, but there have been some qualitative results which could be referred to as psychological impacts of the ban [ID-H/M&DR].
- 3348 LcjW DUBLIN, Holly T. and TAYLOR, Russell D. (1996). Making management decisions from data. In Studying elephants (ed. Kadzo Flora Kangwana), pp. 10-17. African Wildlife Foundation, Technical Handbook Series 7, Nairobi, Kenya, 178 pp. **Annotation:** Review options available, need to know about population numbers, ecology and overall behavior and health of each population to be managed and to understand various aspects of human-elephant conflicts [ID-H/M&DR].
- 3349 LcwW DUBLIN, Holly T., MCSHANE, Thomas O., and NEWBY, J. (1997). Conserving Africa's elephants: current issues & priorities for action. WWF, Gland, 28 pp.
- 3350 LiuW DUBLIN, Holly T., MILLIKEN, Tom, and BARNES, Richard F. W. (1994). Four years after the CITES ban: illegal killing of elephants, ivory trade and stockpiles. Gland, IUCN/SSC/AfESG, iv + 110 pp. **Annotation:** Assessing impact of ivory ban focus on analysis of illegal killing of elephants, review of national legislation on elephants and ivory, evaluation of current levels of illegal trade in and ivory stockpiling. Though focused on Zimbabwe, Kenya, Tanzania, Cameroon, Malawi, Zambia, Gabon, Ivory Coast, and Nigeria, the situation in 16 other range states was broadly examined through postal questionnaires and discussions. Information collected for period 1988-1993 to allow for pre and post ban comparisons. Six countries provided quantitative data on carcass numbers; data from five allowed for calculation of carcass density. Trends between pre-ban and post-ban periods varied and mostly inconclusive. Seems international ivory trade ban has not halted illegal offtake of elephants. Continued loss a result of inability of range states to protect them. In terms of sound legislation and general enforcement of wildlife laws, central and west African countries lag behind east and southern range states. Ivory stockpiles are increasing, effective policy action needs to be taken in storage, maintenance and disposal. Human-elephant conflict increased [ID-H/M&DR].
- 3351 LiuW DUBLIN, Holly T., MILLIKEN, Tom, and BARNES, Richard F. W. (1995). [A summary of] Four years after the CITES ban: illegal killing of elephants, ivory trade, and stockpiles. Reprinted in Journal of the Elephant Managers Association, 6(2):56-57. **Annotation:** IUCN/SSC AfESG and TRAFFIC undertook an examination of impact of ivory trade ban on elephants and elephant conservation. Key findings summarized (1) Budgets for elephant protection declined dramatically; (2) Elephant poaching, though reduced, continues; (3) Ivory trade, though reduced, continues; (4) Ivory stockpiles growing; (5) Human-elephant conflict intensifies. Critique of this report by Richard Leakey summarized by Anonymous, 1996, Reference no. 2692 [E/ECM].
- 3352 LjwW DUBLIN, Holly T., SINCLAIR, A. R. E., and MCGLADE, J. (1990). Elephants and fire as causes of multiple stable states in the Serengeti-Mara woodlands. Journal of Animal Ecology, 59(3):1147-1164. **Annotation:** Based on concept of multiple stable states in ecosystems, study suggests combined impact of fire and elephant browsing caused loss in woodland. Continued grazing and trampling by wildebeest and other herd animals maintain grassland in Serengeti-Mara area [ID-H/M&DR].
- 3353 LmcW DUBLIN, Holly T., SINCLAIR, A. R. E., BOUTIN, S., ANDERSON, E., JAGO, M., and ARCESE, Peter. (1990). Does competition regulate ungulate populations?: further evidence from Serengeti, Tanzania. Oecologia, 82:283-288. **Annotation:** Several hypotheses on regulation and coexistence suggested for changes in populations of several ungulate species in Mara-Serengeti region over past three decades. Censuses in 1980's allowed for testing some hypotheses. It appears interactions with human populations in both land use and poaching may be more responsible for changes than natural regulatory causes. From 1977-1986 elephant numbers dropped by 81% in SNP while little change in Mara. Evidence suggests that extensive poaching in northern and western SNP from 1979-1984 accounted for drop in elephant and buffalo numbers [ID-H/M&DR].
- 3354 \*vaU DUBROVO, Irina A. (1989). Systematic position of the Khapry elephants. Paleontologicheskii Zhurnal, 1989/1:78-87.

- 3355 \*vaU DUBROVO, Irina A. (1994). Fossil elephants from the Commonwealth of Independent States. In The Hot Springs Mammoth Site: a decade of field and laboratory research in paleontology, geology, and paleoecology (ed. L. D. Agenbroad and J. I. Mead), pp. 426-451. The Mammoth Site of South Dakota, Hot Springs, 457 pp.
- 3356 \*vpU DUBROVO, Irina A. and JAKUBOWSKI, G. (1988). The carpus morphology of the forest elephant (*Palaeoloxodon*) and its significance in taxonomy. Prace Muzeum Ziemi, 40:65-83.
- 3357 \*gvU DUBROVO, Irina A. and MOL, Dick. (1991). Fossiele olifanten van de Sovjet-Unie en Nederland. Cranium, 8(2):77-87. **Annotation:** Taxonomy of fossil elephants according to Dubrovo (1985, "Acta Zoologica Fennica", 170:241-245). Three generals are distinguished: *Archidiskodon*, *Mammuthus*, and *Palaeoloxodon*. Differences between Russian and Dutch fossil elephant finds, review of correlations of Plio-Pleistocene of Soviet Union and that of Pleistocene in Western Europe [E/ECM, summary].
- 3358 \*veU DUDLEY, Joseph Paine. (1987). Wildlife and landscapes of late Pleistocene Florida: the paleoecology of Rancholabrean mammoth-mastodont faunas in southeastern North America. Unpublished M.Sc. thesis. University of Florida, Gainesville.
- 3359 \*vpU DUDLEY, Joseph Paine. (1988). Dental metrics of *Mammuthus* in the non-glacial regions of North America. Current Research in the Pleistocene, 5:68-69.
- 3360 LcwW DUDLEY, Joseph Paine. (1992). Elephant conservation in West African rainforest fragments [abstract]. In Forest remnants in the tropical landscape: benefits and policy implications (ed. J. Schelhas and R. Greenberg). Smithsonian Institution, Washington, D.C.
- 3361 EegW DUDLEY, Joseph Paine. (1993). Community ecology of the Asiatic elephant. Gajah, 10:4-10. **Annotation:** Elephant and man could coexist in the face of human pressures on forest communities by implementing the Elephant Range concept explained here [E/JMH]. Habitat, habitat alteration, food, digestion, measurements, extinction, movements, distribution, activity pattern, Sri Lanka, India, China, Malaysia, Borneo, Indonesia [MPK].
- 3362 LcwW DUDLEY, Joseph Paine. (1995). Forest elephant conservation in West African rainforest fragments. Wildlife & Nature (FAO, Accra, Ghana), 11(2):8-19. Also published in Nature et Faune, 11(2):8-21 [in French and English]. **Annotation:** Upper Guinea rain forest region in West Africa has essentially no intact high forest habitat surviving outside national parks and forest reserves and very little primary forest survives. Though poaching is acute in some areas, habitat loss appears greatest threat to forest elephant populations. Reviews multiple land use model with respect to elephant conservation noting need for economic development, land use management and mitigation of human-elephant conflicts [ID-H/M&DR].
- 3363 LcmW DUDLEY, Joseph Paine. (1996). African elephants in coastal refuges. Pachyderm, 21:78-83. **Annotation:** History and status of relict elephant populations at Kakum, Ghana, Knysna, South Africa, and AENP show common elements affecting survival of elephant populations in human-dominated landscapes [E/ECM]. Elephants survived in coastal regions due to presence of core habitat in government forest areas, key factor habitat refuge rather than protected status. All three sites currently isolated from contact with other elephant populations. Sites initially protected under forest reserve status by colonial administration and kept or upgraded to National Parks by subsequent national governments. Detailed historical data available for Knysna and AENP elephant populations represent unique opportunity for investigating genetic consequences of bottlenecks and reintroduction within isolated elephant populations. Could be used to assess likelihood of prior population bottlenecks within such populations as Kakum where past history is uncertain [ID-H/M&DR].
- 3364 \*ewU DUDLEY, Joseph Paine. (1996). Mammoths, gomphotheres, and the great American faunal interchange. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 289-295. Oxford University Press, 472 pp. **Annotation:** Ecology, evolution, North America, South America, Beringia [MPK].
- 3365 LghW DUDLEY, Joseph P. (2000). Review of "African elephants: a celebration of majesty" by Daryl and Sharna Balfour, published by Struik Publisher (Pty) Ltd., Cape Town, 1997. Elephant, 2(4):72.
- 3366 EgqB DUDLEY, Joseph P. (2000). Review of "Gone astray: the care and management of the Asian in domesticity" by Richard C. Lair, published by FAO Regional Office for Asia and the Pacific (RAP), Thailand, 1997. Elephant, 2(4):72.
- 3367 LcmW DUDLEY, Joseph Paine, MENSAH-NTIAMOAH, A. Y., and KPELLE, D. G. (1992). Forest elephants in a rainforest fragment: preliminary findings from a wildlife conservation project in southern Ghana. African Journal of Ecology, 30(2):116-126. **Annotation:** Data on population status, foraging habits and crop depredation activities of African forest elephants collected in Kakum and Assin-Attandanso Forest Reserves, Central Region, Ghana. Spoor data used to derive group size, age class and population density estimates 100-150 individuals or 0.3-0.4 elephants square km. Elephants appear to be isolated from contact with other elephant populations. Poaching not a problem at present. Elephants often damage food crop in farms bordering reserves, but do not damage orchard crops [ID-H/M&DR].
- 3368 LjwW DUDLEY, Joseph Paine, BRYANT, J. P., RUESS, R. W., and QUANG, P. X. (1999). Elephant-frost-fire interactions among woodland and scrubland habitats in Hwange National Park, Zimbabwe. In Foraging ecology and conservation biology of African elephants: ecological and evolutionary perspectives on elephant-woody plant interactions in African landscapes, pages 67-93. D. Phil. Thesis, University of Alaska Fairbanks. **Annotation:** Study of effects and interactions of elephants, fire, and frost on mortality of shrubs and trees in Kalahari Sand and mopane habitats of HNP. Frost, fire, and drought influence patterns and intensities of elephant browsing on woody plants. Findings of this study contradict those of previous authors who found elephant browsing to be a minor factor in the structural dynamics of woodland/scrubland habitats in HNP [MPK].
- 3369 LrcW DUNBAR, Bonnie S. (1994). Application of immunological contraceptive vaccines in wildlife management. In Proceedings of the second international NCCR (National Centre for Research in Reproduction) conference on 'advances in reproductive research in man and animals' held in Nairobi on 3rd to 9th May 1992 IPR/NHK, Nairobi, pp. 311-319.
- 3370 LmwW DUNHAM, K. M. (1988). Demographic changes in the Zambezi Valley elephants (*Loxodonta africana*). Journal of Zoology, London, 215:382-388. **Annotation:** Average age of maturity for young female elephants in 1985 (MPNP) was 13-14, it had been 10-12 in 1969-72. Mean calving rate during earlier study was 3.4 years. Though there was high pregnancy rate in 1985, there were few animals under 5 years old due to recent drought conditions; calving rate considered to be 3.8 years [ID-H/M&DR].
- 3371 LwcW DUNHAM, K. M. (1989). Long-term changes in Zambezi riparian woodlands, as revealed by photopanoramas. African Journal of Ecology,

- 27(4):263-275. **Annotation:** Photopanoramas were used to study changes in *Acacia albida* woodlands in MPNP between 1961 and 1987. In 1958, fire regime of the area altered when local people left. Flooding regime changed with closure of Kariba Dam. Tree population declined due to low recruitment and loss of canopy trees at a mean rate of 0.9% per year. Absolute mortality rate of trees was density-dependent; mortality did not vary in relation to temporal changes in elephant density. At end of 1961 dry season, there was almost continuous ground cover of dead grass, by 1980s, dry season ground cover was much lower, often negligible. Before 1958, fire and large mammals were principal consumers of herbaceous layer, but after 1958, *Macrotermes* sp. mound density increased; termites and large mammals are now main consumers [ID-H/M&DR].
- 3372 UdaC DUNLOP, C. I., HODGSON, D. S. CAMBRE, Richard C., and KENNEY, D. E. (1988). Prolonged isoflurane anesthesia of an adult elephant on two occasions. *Veterinary Surgery*, 17(2):167-168.
- 3373 BaoC DUNLOP, C. I., HODGSON, D. S. CAMBRE, Richard C., KENNEY, D. E., and MARTIN, H. D. (1994). Cardiopulmonary effects of three prolonged periods of isoflurane anaesthesia in an adult elephant. *Journal of the American Veterinary Medical Association*, 205(10):1439-1444. **Annotation:** On page 1440, Figure 1 — "Diagram showing 2 anesthetic machines connected by a common Y piece to the orotracheal tube of an anesthetized elephant" [E/ECM].
- 3374 LugW DU TOIT, J. G. (reprinted 1994). The African elephant (*Loxodonta africana*) as a game-ranch animal. In *The African elephant as a game ranch animal*, pp. 85-95. SAVA [South African Veterinary Association] Wildlife Group, Onderstepoort, South Africa, 192 pp. **Annotation:** Translocation, food, seasonality, drought, mortality, disease, habitat-alteration, social-relations, sex-ratio, population, endocrinology, South Africa [MPK].
- 3375 LucW DU TOIT, J. G. (1994). *The introduction of elephant family units on game ranches and reserves in the Republic of South Africa*. Du Toit Game Services (Pty) Ltd, Pretoria, 10 pp. **Annotation:** Experience gleaned from relocation of 144 elephants from 18 family units in KNP to nine protected areas within general area are reviewed. In two cases, animals broke out of reserves soon after introduction; three animals were shot on reserves leaving a total of 141 successfully introduced [ID-H/M&DR].
- 3376 LcjW DU TOIT, J. (1996). Gone fishin'. *Keeping Track*, October/November:28-30. **Annotation:** Ecotourism at Impalila Island Lodge, Zambia [MPK].
- 3377 LktW DU TOIT, J. G. and BENGIS, Roy G. (1993). Accommodation of the African elephant *Loxodonta africana*. In *The capture and care manual: capture, care, accommodation and transportation of wild African animals* (ed. Andrew A. McKenzie), pp. 498-505. Wildlife Decision Support Services, South African Veterinary Foundation, Pretoria, South Africa, 730 pp. **Annotation:** Translocation, behavior, sleep, thermoregulation, water, hearing, olfaction, disease, fire, wallowing, injury, grooming, KNP [MPK].
- 3378 LgcW DU TOIT, J. G. and BURROUGHS, R. E. J. (compilers). (1995). Elephant bibliography. In *Proceedings of a symposium on the African elephant as a game ranch animal*, held at Berg-en-Dal, Kruger National Park, 29-30 April 1991 (ed. J. van Heerden and B. L. Penzhorn), pp. 105-146. SAVA Wildlife Group, Onderstepoort.
- 3379 LicW DU TOIT, Julienne and NEL, Michelle. (1997). To trade or not to trade. *Keeping Track*, April/May:9-12. **Annotation:** Southern African Development Community, Zimbabwe, Namibia, Botswana united to propose to renew ivory trade [E/ECM].
- 3380 LjnW DU TOIT, J. T., BRYANT, J. P., and FRISBY, K. (1990). Regrowth and palatability of *Acacia* shoots following pruning by African savanna browsers. *Ecology*, 71(1):149-154. **Annotation:** Habitat alteration, ecology, KNP [MPK].
- 3381 LkrW DU TOIT, J., COETZEE, A. M., and KINGSLEY, C. C. (1994). Mass capture technique for elephant breeding herds. *Vetmed*, 7(4):130-133.
- 3382 LciW DU TOIT, R. F. and CUMMING, D. H. M. (1987). The conservation status of Africa's elephants and rhinos in 1987. *Proceedings of a meeting of the IUCN/SSC African Elephant and Rhino Specialist Group, May 1987 Nyeri, Kenya*, 113 pp. **Annotation:** Presents AERSG action plan priorities, summarizes elephant population estimates of 1987. Elephant problems in Central African Republic, ivory trade statistics, ivory export quota system, vocal communication in African elephants, pachyderms and ecosystem conservation in Africa [ID-H/M&DR].
- 3383 LwiW DUTTON, P. (1992). Wildlife victims of Mozambique's war. *African Wildlife*, 46(2):65, 67-69. **Annotation:** Negative impact of civil war in Mozambique on wildlife, particularly in formerly rich areas like Marrromeu Delta at mouth of Zambezi. Compares surveys between 1969 and 1979 with those in 1990. Though most ungulates suffered extensive losses, elephant population of about 400 remained stable because animals occupied wettest thus most inaccessible part of floodplain [ID-H/M&DR].
- 3384 EroB EASA, P. S. (1987). Chemical composition of the temporal gland secretion of an Asian elephant (*Elephas maximus*). *Elephant*, 2(3):67-68.
- 3385 +rpW EASA, P. S. (1992). Musth in Asian elephants. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 85-86. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** *Mammuthus*, rogues, endocrinology, behavior, Kerala, India, Sri Lanka [MPK].
- 3386 LcwW EBEDES, H., VERNON, C., and GRUNDLING, I. (1991). Past, present and future distribution of elephants in southern Africa. (Paper presented at Elephant Symposium, Berg-en-dal, Kruger National Park, 29-30 April 1991.). Pretoria: Department of Agriculture Division, Transvaal Region, Agrivall, 24 pp.
- 3387 LcgW EBEDES, H., VERNON, C., and GRUNDLING, I. (reprinted 1994). Past, present and future distribution of elephants in southern Africa. In *The African elephant as a game ranch animal*, pp. 3-25. SAVA [South African Veterinary Association] Wildlife Group, Onderstepoort, South Africa, 192 pp. **Annotation:** Translocation, captivity, history, trails, KNP, AENP, Knysna, Angola, Botswana, Mozambique, Namibia, Zambia, HNP [MPK].
- 3388 LzgW EDROMA, Eric L. (compiler). (1991). Bibliography on wildlife conservation in Eastern Africa. *African Biosciences Network*, Dakar, 229 pp.
- 3389 BhzC EDWARDS, John (compiler). (1996). *London Zoo from old photographs 1852-1914*. Self Published, London, 241 pp. **Annotation:** "Jumbo" on cover. Reviewed by Leslie Mackie in "JEMA", 7(2):73-74 [JS].
- 3390 LcwW ELS, A. W. M. and EKOBO, A. (1987). *Les éléphants du Parc National de Waza et les interactions avec l'agriculture dans la région. Serie Environnement et Développement au Nord du Cameroun*. Université d'Etat de Leyde, Pays-Bas, 76 pp.
- 3391 LgjW EISENBERG, John F. (1988). Review of "Elephant memories: thirteen years in the life of an elephant family" by Cynthia Moss, published

- 1988 by William Morrow, New York, 336 pp. Natural History, March:80, 82, 84.
- 3392 ErqC EISLER, Kim I. (1994). The 264-pound miracle. Reader's Digest, July:145-146, 148-150. **Annotation:** Condensed from Washingtonian. Relates story of Asian calf, "Kumari", born at National Zoo [ECM].
- 3393 LmwW EKOBO, Atanga. (1993). The status of forest elephants in the south east of the Republic of Cameroon. Pachyderm, 16:84.
- 3394 LmwW EKOBO, Atanga. (1995). Elephants in the Lobeke forest, Cameroon. Pachyderm, 19:73-80. **Annotation:** Results of dung counts by line transect ground surveys to ascertain density of elephant in Lobeke forest area. Data along with ecological surveys and other information is being utilized to assess value of forest area as a reserve [ID-H/M&DR].
- 3395 LmuW EKOBO, Atanga. (1996). Elephant numbers in Boumba-Bek, Cameroon. Pachyderm, 22:58.
- 3396 LwcW EKOBO, Atanga. (1997). Elephant problem in the Mungo Division, Littoral Province (Cameroon). Pachyderm, 24:53-63 [summary in French]. **Annotation:** Following a preliminary survey of crop-raiding areas, a recommendation for systematic surveying and studies plus the use of management options of disturbance and controlled shooting is outlined [SLS].
- 3397 LbzW ELKAN, P. W., Jr. (1995). Elephant encounter: a field scientist's subject gets up close—and much too personal. Wildlife Conservation, 98(1):34-39. **Annotation:** Behavior, attacking-human, Cameroon [MPK].
- 3398 LcoW ELKAN, P. W. (1998). Chemical immobilization of African elephant in lowland forest, southwestern Cameroon. Pachyderm, 25:32-37. **Annotation:** Immobilization of six elephants as part of long term investigation of elephant ecology. Etorphine and carfentanil employed as immobilizing agents. Systems of delivery, technological aids field tested [E/ECM].
- 3399 BqtC ELLERTON, Nick G. (1988). Development and present status of elephant management in the U.K. In Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988, pp. 15-18. Jacksonville Zoological Park, Florida, 145 pp.
- 3400 EqtC ELLERTON, Nick. (1997). Working elephants in Myanmar. Zoo Life, Autumn, 1997:16-17. **Annotation:** 5,800 captive elephants in Myanmar, 2,800 owned by Myanmar Timber Enterprise, subsidiary of Ministry of Forestry. Only elephants over age 17 drag logs, subject to very strict working practices. At end of day, elephants released in forest to forage. The oozie may walk several miles next day to find his elephant [E/ECM].
- 3401 LjhW ELLIOTT, Alan. (1991). The presidential elephants of Zimbabwe. Delta Operations Pvt Ltd, Harare, Zimbabwe, 144 pp. **Annotation:** Elephants, other wild animals roam private tourist estate adjoining HNP; elephants cross into park freely. Over 200 elephants, most individually recognized by Debbie Grant working for "Touch-the-Wild". Magnificent color photos and paintings of elephants in variety of habitats and behavioral context (on page 61 tail of elephant is held in shape of ankus). Elephants are known as "the Presidential Herd" in honor of His Excellency, President of the Republic of Zimbabwe, Comrade Robert Gabriel Mugabe who gave them special presidential protection. No Index or Bibliography [JS/MPK/BDA].
- 3402 BckW ELLIOTT, RODNEY T. (1992). Letters to the Editor: comments on "Management of elephants in Xishuangbanna Nature Reserve, P. R. of China" by Charles Santiapillai ("Tigerpaper", 18(2) of April-June 1991; see Reference no. 4975). Tigerpaper, 19(3):15-16. **Annotation:** Additional comments on the effective use of electric fencing with wild elephants, including an assessment that the success rate has been 95-100% [SLS].
- 3403 BiuW ELLIS, R. and JACKMAN, B. (1989). Slaughter that shames mankind. Sunday Times (London) [8 October 89]. **Annotation:** Meeting in Amsterdam, preceding 1989 CITES meeting in Lausanne, Switzerland — failure of previous CITES 'ivory policy' — 100,000 elephants killed each year, 90% by poachers who earn equivalent of year's wages with single tusk [MPK].
- 3404 LicW ELLIS, Stephen. (1994). Of elephants and men: politics and the nature of conservation in South Africa. Journal of Southern African Studies, 20(1):53-69. **Annotation:** Outlines role of South Africa as middleman in international ivory trade, role of officers in former defense forces in starting and maintaining both legal, illegal trade. Proposals for large game parks with modern management along Mozambique border have important political and national security implications [ID-H/M&DR].
- 3405 LmeW ELTRINGHAM, S. Keith. (1990). Wildlife carrying capacities in relation to human settlement. Koedoe, 33(2):87-97.
- 3406 LckW ELTRINGHAM, S. Keith. (1991). The elephant problem. In African wildlife: research and management (ed. F. I. B. Kayanja and E. L. Edroma), pp. 93-97. Proceedings of an international symposium, 8 - 11 December 1986. Kampala, Uganda. Paris, ICSU. **Annotation:** Large size, destructive feeding habits of elephants lead to habitat deterioration. Elephant problem stems from population overcrowding due to increasing land requirements by human population. Solutions, including culling, are examined. Recent decrease in elephant population due to illegal hunting for ivory has changed nature of the elephant problem. It is now one of ensuring survival of the species. If they are to survive, it will be in confined land areas such as national parks, thus effective management of them and their habitat will be necessary for sustainability [ID-H/M&DR].
- 3407 ByzW ELTRINGHAM, S. Keith. (1991). How to photograph wild elephants. In The illustrated encyclopedia of elephants: from their origins and evolution to their ceremonial and working relationship with man (consult. ed. S. Keith Eltringham), pp. 178-179. Crescent Books, New York, 188 pp.
- 3408 BgvB ELTRINGHAM, S. Keith (consultant ed.). (1991). The illustrated encyclopedia of elephants: from their origins and evolution to their ceremonial and working relationship with man. Crescent Books, New York, 188 pp.; also Salamander books, London. **Annotation:** On the page about THE AUTHORS, both S. Keith Eltringham and David Ward are listed as consultants. See reviews by Santiapillai (1993), and Jackman (1992). The 1997 edition was published by SMITHMARK Publishers [MPK].
- 3409 LebW ELTRINGHAM, S. Keith. (1992). Ecology and behavior. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 124-127. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** Outline on basic ecology of African elephants. Food requirements, general feeding behavior, relationships with other animals, particularly mutualism with various birds. Types of elephant parasites, notes essential relationship this species, like all grazers and browsers, has with specific micro-organisms breaking down cellulose to utilize resultant carbohydrate [ID-H/M&DR].
- 3410 BlmW ELTRINGHAM, S. Keith. (1992). Longevity and mortality. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 99-103. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** Various ways researchers assessed elephant age, to review age structure of herd, analyze mortality in different areas. Physical references, shoulder height, back length index,

- footprint measurement references, noted assessments on changes in folding of ears and facial appearance. Aging by teeth, ear, and eye lens weight, which require carcasses rather than live specimens. Causes of death, other than age [ID-H/M&DR].
- 3411 LcjW ELTRINGHAM, S. Keith. (1993). Review of "Battle for the elephants" by Iain and Oria Douglas-Hamilton, published 1992 by Doubleday, London, 368 pp. Also Viking Penguin, New York. *Oryx* (July 1993), 27(3):188.
- 3412 LiuW ELTRINGHAM, S. Keith. (1993). Review of "To save an elephant: the undercover investigation into the illegal ivory trade" by Allan Thornton and Dave Currey, published 1991 by Doubleday, London, 213 pp. Also published by Bantam Books, Toronto, New York, 273 pp. *Oryx* (July 1993), 27(3):188.
- 3413 LkcW ELTRINGHAM, S. Keith. (1994). Can wildlife pay its way? *Oryx*, 28(3):163-168. **Annotation:** Reviews swing in conservation philosophy from traditional approach of reserves for absolute protection to strategies of management. Game viewing, sport hunting, cropping for meat and non-meat products inclusive of ivory from elephant populations, and ranching or farming of specific species outlined with respect to providing such benefits [ID-H/M&DR].
- 3414 LcuW ELTRINGHAM, S. Keith and MALPAS, R. C. (1993). The conservation status of Uganda's game and forest reserves in 1982 and 1983. *African Journal of Ecology*, 31:91-105 [summaries in English and French]. **Annotation:** Aerial counts of huts, livestock, wildlife in and around eight game reserves in west Uganda in 1982 and five protected areas in east in 1983. Most reserves heavily encroached, little wildlife remained in western reserves [E/ECM].
- 3415 BgzB ELTRINGHAM, S. Keith and WARD, David (consultant eds). (1997). *The illustrated encyclopedia of elephants: from their origins and evolution to their ceremonial and working relationships with man*. SMITHMARK Publishers, New York (Copyright by Salamander Books Limited, London), 188 pp. First published in 1991 by Crescent Books, New York. **Annotation:** African, Asian elephants; chapters on origin and evolution, anatomy and physiology, social life, reproduction, ecology, disease and mortality, working elephants, Indian myths and history, ivory trade, and conservation. Among facts (pp. 123-4) a mature Asian elephant can drag a log over 4 tonnes (almost 9,000 pounds), lift logs not exceeding 350 kg (770 pounds) [MPK/JMH].
- 3416 BdqC ELZE, K., SELBITZ, H. J., SEIFERT, S., and EULENBERGER, K. (1989). Beitrag zur sogenannten Steifbeinigkeit der Elefanten [=Stiff leg lameness in elephants]. In *Erkrankungen der Zootiere*, pp. 189-194. Verhandlungsbericht des 31. Internationalen Symposiums über die Erkrankungen der Zootiere. [East] Berlin, German Democratic Republic: Akademie-Verlag.
- 3417 \*ewU ENGESSER, Burkart, FEJFAR, Oldrich, and MAJOR, Pavel. (1996). *Das Mammut und seine ausgestorbenen Verwandten*. Naturhistorischen Museum, Basel, 187 pp. **Annotation:** Animals (especially proboscidean) of the Ice Age [ECM].
- 3418 LiuW ENVIRONMENTAL INVESTIGATION AGENCY. (1989). *A system of extinction: the African elephant disaster*. Environmental Investigation Agency, London, 48 pp. **Annotation:** Outlines illegal ivory trade and poaching of elephants, lack of effectiveness of CITES. Profiles people and agencies in illegal trade, assesses relationships between CITES officials, traders and government officials and economically or politically powerful individuals [ID-H/M&DR].
- 3419 BiuW ENVIRONMENTAL INVESTIGATION AGENCY. (1992). *Under Fire: elephants on the front line*. Environmental Investigation Agency, London, 57 pp.
- 3420 BicB ESPINOZA, Edgard O'Neil and MANN, Mary-Jacque. (1991). *Identification guide for ivory and ivory substitutes*. WWF, Washington, 35 pp. Second edition printed in 1992. **Annotation:** Methods, data, background on ivory identification offers law enforcement officers, scientists, managers effective visual way to distinguish legal from illegal ivory. Focus on 'species determining' characteristics of ivory itself. Non-destructive visual identification methods deemed reliable for raw ivory, but carved object needs trained forensic scientist for positive identification [ID-H/M&DR].
- 3421 BiaB ESPINOZA, Edgard O'Neil and MANN, Mary-Jacque. (1993). The history and significance of the Schreger pattern in proboscidean ivory characterization. *Journal of the American Institute for Conservation*, 32(1993):241-248. **Annotation:** Possible, with experience and good sample with Schreger lines clearly visible, to distinguish between African and Asian tusks [JS].
- 3422 +ioB ESPINOZA, E. O. and MANN, M.-J. (1994). Mammoth or elephant ivory?: forensics provide the key. *Endangered Species Technical Bulletin*, 19(1):8-9. **Annotation:** Differentiation of elephant and mammoth ivory via Schreger Pattern angle method as devised by Fish and Wildlife Forensics Laboratory. Booklet outlining this method and ways of identifying other types of natural ivory and man-made materials was published by WWF in 1991 [ID-H/M&DR].
- 3423 +ioB ESPINOZA, E. O., MANN, M.-J., LEMAY, J. P., and OAKES, K. A. (1989). Identification of ivory from ancient Proboscidea versus extant elephant. *Proceedings of the Annual Elephant Workshop*, 10:57-59.
- 3424 +icB ESPINOZA, E. O., MANN, M.-J., LEMAY, J. P., and OAKES, K. A. (1990). A method for differentiating modern from ancient proboscidean ivory in worked objects. *Current Research in the Pleistocene*, 7:81-83. **Annotation:** *Loxodonta africana*, *Elephas maximus*, *Mammuthus primigenius*, microscopy. See Reference nos. 3420, 3423 [MPK].
- 3425 LovW ESSOP, M. F., HALL-MARTIN, Anthony J., and HARLEY, E. H. (1996). Mitochondrial DNA analysis of two southern African elephant populations. *Koedoe*, 39(1):85-88. **Annotation:** Genetics, systematics, Knysna, KNP, AENP [MPK].
- 3426 LbgU ESTES, Richard Despard. (1991). *The behavior guide to African mammals: including hoofed mammals, carnivores, primates*. University of California Press, Berkeley, 611 pp. **Annotation:** Elephants on pages 259-67. Line drawings depicting various behaviors. Among others, a "Mother 'steering' her calf with a grip on its tail", and "Elephants supporting and attempting to raise a wounded companion" [JS]. Reviewed 1992 "Journal of Mammalogy", 73(1):223-224 [MPK].
- 3427 LgjW ESTES, R. D. (1993). *The safari companion: a guide to watching African mammals*. Chelsea Green, White River Junction, Vermont, 463 pp.
- 3428 LbgU ESTES, Richard Despard. (1995). Elephants, order Proboscidea, family Elephantidae. In *The behavior guide to African mammals* (African edition), pp. 259-267. Halfway House. Russell Friedman Books.
- 3429 BqrC EUROPEAN ELEPHANT GROUP. (1993). *Elefanten in zoo und circus: Dokumentation Teil 1: Europa*. European Elephant Group, München, 232 pp. **Annotation:** Page 126 contains country by country, and total summary of elephants in Europe. Births from 1902 to 1992. Reviewed in "Circus Report", June 27, 1994, No. 26:22, 26 [SLS].

- 3430 ErcC EUROPEAN ELEPHANT GROUP. (1997). European elephant studbook. Web site <<http://www.wineasy.se/elephant/studbook/europe/asian.htm>>. **Annotation:** Extremely useful source, used in part to construct data for "Captive elephant population of North America: 1987-1999 and notes on..." see Contents for this issue of Elephant, and also cf. Reference nos. 3429, 3431) [SLS].
- 3431 BqrC EUROPEAN ELEPHANT GROUP. (1997). Elefanten in zoo und circus: Dokumentation Teil 2: Nordamerika, 200 Jahre elefantenhaltung in Amerika 1796-1996. European Elephant Group, München, 288 pp. **Annotation:** On cover is picture of "Hebe" with her calf "Columbia" [JLP].
- 3432 EdqC EVANS, G. H. (1997). Elephants and their diseases: a treatise on elephants. White Orchid Press, Chatuchak (Thailand), 343 pp. Reprint of 1910 book published by Government Press, Rangoon, 343 pp. **Annotation:** First classic 'hands-on' manual to appear in era of Teak Wallah. Deals with general care and hardware but dedicated primarily to veterinary care. Surprising number of techniques still useful, particularly in field conditions in Asia and in zoos [E/ECM].
- 3433 LmwW FALCONER, A. (1992). Geographic information technology fulfills needs for timely data. GIS World, 5(6):36-41. **Annotation:** Remote sensing facility at Regional Centre for Services in Surveying, Mapping and Remote Sensing and GIS program at Global Resource Information Database (GRID) and Global Environmental Monitoring System (GEMS) at UNEP in Nairobi. One project is African Elephant Database which maps range and protected areas and can be displayed on continental, regional or national scale [ID-H/M&DR].
- 3434 LcwW FARMER, H. (1990). Absence of elephant. The College Press, Harare, Zimbabwe, 46 pp.
- 3435 \*awU FAURE, Martine and GUÉRIN, Claude. (1997). Gafalo, nouveau site à *Palaeoloxodon recki* et *Hippopotamus amphibius* du Pléistocène ancien du Gobaad (République de Djibouti). Comptes Rendus de l'Académie des Sciences, Paris Serie IIA, 324(12):1017-1021 [in French, with French and English abstracts]. **Annotation:** Parts of skeletons of *Palaeoloxodon recki* and *Hippopotamus amphibius*, dated from 1.6-1.3 Mya, found at Gafalo near As Eyl, Djibouti [E/ECM, abstract].
- 3436 BciB FAVRE, David. (1989). International Trade in Endangered Species: a guide to CITES. Martinus Nijhoff Publishers, Dordrecht, The Netherlands, 415 pp. **Annotation:** Reviewed in "Oryx", 24(2):115. by Jacqui Morris (1990): "...an ideal reference for either a complete explanation of CITES or a means of checking on specific issues [E/SLS].
- 3437 LcwW FAVRE, David. (1993). Debate within the CITES community: what direction for the future: Natural Resources Journal, 33(3):875-918. **Annotation:** CITES during first twenty years, special reference to African elephants, major agenda item in 1989. Cultural differences, sustainable utilization, economics, science and population management, sovereignty, common heritage, CITES issues, listing of species, granting of permits, enforcement [ID-H/M&DR].
- 3438 LmwW FAY, J. Michael. (1991). An elephant (*Loxodonta africana*) survey using dung counts in the forests of the Central African Republic. Journal of Tropical Ecology, 7(1):25-36. **Annotation:** Dung density data collected May and June, 1989 indicated elephant populations still relatively high in forested areas in southeast forest where poaching heavy for some time, but suggested that population is caused by movement from adjacent unprotected areas. Highest density found in proposed DSR [ID-H/M&DR].
- 3439 LmwW FAY, J. Michael and AGNAGNA, Marcellin. (1991). Forest elephant populations in the Central African Republic and Congo. Pachyderm, 14:3-19. **Annotation:** Fay's part of report (pp. 4-12) focused on Central African Republic (CAR), remainder (pp. 12-19), by both authors, focused on Congo. Appendix summarizes bio-diversity of area and program planning required to conserve Nouabale area in Congo and adjacent DSR. Till recently little known of elephant population in Congo, dearth of data on other central African forest areas. No elephants recorded in Ngoto forest area in southwestern CAR, extrapolated population for proposed DSR is 3,600 that for Ndanda region is 2,640. Density compares favorably with that of neighboring countries, suggests there could be as many as 25,000 elephants in this region [ID-H/M&DR].
- 3440 LmwW FAY, J. Michael and AGNAGNA, Marcellin. (1991). A population survey of forest elephants (*Loxodonta africana cyclotis*) in northern Congo. African Journal of Ecology, 29(3):177-187. **Annotation:** From February-April 1989, transects were run in four forested areas of northern Congo (Brazzaville) to census elephant populations using dung counts. Total of 401.0 km of line transects completed. Overall extrapolated density of 0.7 elephants/sq km obtained with variation from 0.3 to 0.9 elephants/sq km. Shows first time that elephants occur in high densities in number of sites in northern Congo. When dung density plotted against distance from nearest village for each transect, significant positive linear correlation results. Based on this, we hypothesize that elephant population in much of northern Congo is high. Local reports and our observations indicate that elephant poaching is heavy in northern Congo and CITES ban on trade in African ivory had limited effect on poaching [ID-H/M&DR].
- 3441 LiuW FAY, J. Michael and AGNAGNA, Marcellin. (1993). Elephants and ivory in the Congo since the ban: the lull before the storm? Pachyderm, 16:51-58. **Annotation:** AfESG meeting, Victoria Falls, Zimbabwe, Nov. 17th-22nd 1993. On average, raw ivory from between 2,011 and 3,788 elephants exported with documentation from Congo every year from 1979-1988. Actual figure undoubtedly higher than official one. Evident that Congo participated actively in ivory trade with dramatic population decrease throughout ranges in 1980s. The 1989 ivory trade ban and subsequent market collapse led to significant decrease in poaching and trade. Congo has made significant advances in conservation with positive results in protection in some areas [ID-H/M&DR].
- 3442 LizW FAY, J. Michael, MADZOU, Y., and MOUKASSA, A. (1996). Capital city artisan markets in Africa and their impact on elephants: a case study from the Republic of Congo. Pachyderm, 22:76.
- 3443 LjcW FAY, [J.] Michael, NICHOLS, Michael, and BELT, Don. (1999). Forest elephants. National Geographic, 195(2):100-113. **Annotation:** Photo documentation on pioneering ecological and behavioral work of Andrea Turkalo and Michael Fay of forest African elephant (*Loxodonta africana cyclotis*) at Dzanga Bai in Dzanga-Ndoki National Park in Central African Republic. Forest elephants are about 1/3 of remaining African elephants. Turkalo and Fay identified 2,500 elephants by individual markings thus able to follow ontogenetic development. Study began about a decade ago. Such long-term studies paramount for conservation efforts [JS; RIO].
- 3444 LrcW FAYRER-HOSKEN, Richard A., BROOKS, Paula, BERTSCHINGER, Henk J., KIRKPATRICK, Jay F., TURNER, John W., and LIU, Irwin K. M. (1997). Management of African elephant populations by immunocontraception. Wildlife Society Bulletin, 25(1):18-21.

- 3445 EqIC FEATHERSTON, Barrett. (1997). Who killed Betty the elephant? *Yankee*, May 1997:24. **Annotation:** In 1826, "Betty", the elephant, was assassinated as she crossed bridge over Chepachet River in Rhode Island. Motive for her death still a mystery. May 25, 1976 proclaimed Elephant Day in Chepachet, and city was declared safe haven for all elephants. See Reference nos. 2461, 3940 for more on the fate of Betty [ECM].
- 3446 LmwW FEER, Francois. (1995). Morphology of fruits dispersed by African forest elephants. *African Journal of Ecology*, 33(3):279-284. **Annotation:** African forest elephant diet includes significant number of fruits. Large number and diversity of viable seeds observed in dung suggest elephant is major plant disperser, in Tai forest, considered principal dispersal agent of about 30% of large tree species. Uganda and Ghana studies suggest *Balanites wilsoniana* depends on elephant for dissemination. Focus on several fruit types, particularly with large well-protected seeds, considered mostly, possibly exclusively, dispersed by forest elephant. Estimated specific role of elephant more restrictive than others assumed. More work needed for regarding other frugivorous animals before paucity or loss of particular tree species can be attributed to disappearance of elephant in West African forests [ID-H/M&DR].
- 3447 LckW FERAL, C. (1995). Kenya rethinks wildlife policy. *African Wildlife News*, 30(5):1, 4.
- 3448 BdqW FERBER, Dan. (1999). Virus suspect identified in elephant deaths. *Science*, 283(5405):1093-1094. **Annotation:** See Reference no. 4891 [ECM].
- 3449 EckW FERNANDO, A. B. (1993). Recent elephant conservation efforts in Sri Lanka: a tragic story. *Gajah*, 10:19-25. **Annotation:** Drastic decline in elephant ranges basically due to habitat loss; "policies being followed though grandiose are neither scientifically sound nor practical" [E/JMH].
- 3450 EcwW FERNANDO, L. (1993). Hadapanagala elephants — a Sri Lankan tragedy. *Daily News* (Sri Lanka), October 26:3, 38.
- 3451 EcxW FERNANDO, Prithiviraj. (1995). Implications of socio-ecology and genetics on the conservation and management of the Sri Lankan elephant. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 225-235. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3452 EcwW FERNANDO, Prithiviraj. (1997). Keeping jumbo afloat: is translocation an answer to the human-elephant conflict? *Sri Lanka Nature*, 1(1):4-12.
- 3453 EboW FERNANDO, Prithiviraj and LANDE, Russell. (1998). Social organisation of elephants: a molecular and behavioral study. Abstract presented at *National Symposium on Elephant Management and Conservation* (ed. Jayantha Jayewardene and Charles Santiapillai), p. 25. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 3454 EcbW FERNANDO, Prithiviraj and WICKRAMANAYAKE, Eric D. (1998). Human-elephant conflicts in old and new communities in Sri Lanka: perceptions and patterns. Abstract presented at *National Symposium on Elephant Management and Conservation* (ed. Jayantha Jayewardene and Charles Santiapillai), pp. 9-10. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 3455 EkcW FERNANDO, R. (1991). Electrified fences and the Ruhuna National Park. *Loris*, 19(4):153-155.
- 3456 \*vaU FERRETTI, Marco P. (1997). *Mammuthus cf. primigenius* (Proboscidea, Mammalia, a new faunal element from the late middle Pleistocene of the Conca river (Cattolica, Romagna, Italy). *Bolletino della Società Paleontologica Italiana*, 36(3):391-398. **Annotation:** Remains of a mammoth are referred to *M. cf. primigenius*, which represents a new element of the Conca fossil mammal fauna. The morphometric characters of the Conca mammoth do not exclude the possibility it belongs to a more primitive form than typical late Pleistocene *M. primigenius* [E/ECM].
- 3457 \*vwU FICCARELLI, G., AZZAROLI, A., BERTINI, A., COLTORTI, M., MAZZA, P. MEZZABOTTA, C., MORENO ESPINOSA, M., ROOK, L., and TORRE, D. (1997). Hypothesis on the cause of extinction of the South American mastodonts. *Journal of South American Earth Sciences*, 10(1):29-38 [in English, with abstracts in English and Spanish]. **Annotation:** "The final history of South American mastodonts, represented by *Haplomastodon* and *Stegomastodon*, spans the latest Pleistocene and probably the earliest Holocene. *Haplomastodon* was dispersed in the highlands within the tropical belt and *Stegomastodon* in plains of the southernmost part of Brazil, Paraguay, Uruguay, Argentina, central and northern Chile" [E/ECM, abstract].
- 3458 BavB FISCHER, Martin S. (1990). Un trait unique de l'oreille des éléphants et des siréniens (Mammalia): un paradoxe phylogénétique. *Comptes Rendus de l'Académie des Sciences, Paris, Series III*, 311(4):157-162 [English abstract].
- 3459 +vaB FISCHER, Martin S. (1996). On the position of Proboscidea in the phylogenetic system of Eutheria: a systematic review. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 35-38. Oxford University Press, 472 pp. **Annotation:** Sirenia is the closest living relative of Proboscidea, classified in Tethytheria. Hyracoidea is depicted to be related to Mesaxonia (Perissodactyla) or to Tethytheria [JS].
- 3460 +avB FISCHER, Martin S. and TASSY, Pascal. (1993). The interrelation between Proboscidea, Sirenia, Hyracoidea, and Mesaxonia: the morphological evidence. In *Mammal phylogeny: placentals* (ed. F. S. Szalay, M. J. Novacek, and M. C. McKenna), pp. 217-234. Springer-Verlag, New York, 321 pp.
- 3461 LrvU FISCHER, Martin S. and TRAUTMANN, U. (1987). Fetuses of African elephants (*Loxodonta africana*) in photographs. *Elephant*, 2(3):40-45. **Annotation:** Early ontogenetic development of elephants [ID-H/M&DR].
- 3462 \*ueU FISHER, Daniel C. (1987). Mastodont procurement by Paleoindians of the Great Lakes region: hunting or scavenging? In *The evolution of human hunting* (ed. M. H. Nitecki and D. V. Nitecki), pp. 309-421. Plenum Press, New York, 464 pp. **Annotation:** Taphonomy, extinction [MPK].
- 3463 \*lvU FISHER, Daniel C. (1988). Season of death of the Hiscock mastodonts. *Bulletin of the Buffalo Society of Natural Sciences*, 33:115-125.
- 3464 \*uhU FISHER, Daniel C. (1989). Meat caches and clastic anchors: the cryptic record of Paleoindian subsistence in the Great Lakes region. *Geological Society of America, Abstracts with Programs*, 21(6):A234.
- 3465 \*lvU FISHER, Daniel C. (1990). Age, sex, and season of death of the Grandville mastodont. *Michigan Archaeologist*, 36:141-160.
- 3466 \*ilU FISHER, Daniel C. (1991). Growth profiles in mastodont tusks as an indicator of age at sexual maturity. *Journal of Vertebrate Paleontology, Abstracts of Papers*, Volume 11, Supplement to Number 3:28A-29A.
- 3467 \*jwU FISHER, Daniel C. (1994). Late Pleistocene proboscidean trackways in pond-margin sediments in southeastern Michigan. *Journal of*



- Vertebrate Paleontology, Abstracts of Papers, Volume 14, Supplement to Number 3:25A.
- 3468 \*vjU FISHER, Daniel C. (1996). Extinction of proboscideans in North America. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 296-315. Oxford University Press, 472 pp. **Annotation:** Ecology, evolution, Pleistocene, taphonomy, food, weather, growth, tusks [MPK].
- 3469 \*viU FISHER, Daniel C. (1999). Tusks tell the tale. Discovering Archaeology, 1(5):38. **Annotation:** Tusks bear growth rings just as trees do, and can illuminate an animal's life [E/ECM].
- 3470 \*ewU FISHER, Daniel C., LEPPER, B. T., and HOOGE, P. E. (1991). Taphonomic analysis of the Burning Tree mastodont. Current Research in the Pleistocene, 8:88-92.
- 3471 +iaB FISHER, Daniel C., TRAPANI, Josh, SHOSHANI, Jeheskel, and WOODFORD, Michael S. (1998). Schreger angles in mammoth and mastodon tusk dentin. Current Research in the Pleistocene, 15:105-106. **Annotation:** One Schreger pattern more easily quantified is angle of intersection of dextral and sinistral spirals, used to distinguish modern ivory of African and Asian elephants from extinct ivory, mostly from woolly mammoths. Authors also present evidence Schreger angles can be used to distinguish tusks of mammoths from those of American mastodon [ECM].
- 3472 \*avU FISHER, J. W. (1992). Observations on the late Pleistocene bone assemblage from the Lamb Spring site, Colorado. In Ice Age hunters of the Rockies (ed. D. J. Stanford and J. S. Day), pp. 51-81. Denver Museum of Natural History and University Press of Colorado, Niwot, xii + 378 pp.
- 3473 BikW FISHER, Jonathan. (1997). To ban or not to ban? International Wildlife, 27(3):36-37.
- 3474 BcwB FITZGERALD, Sarah. (1989). Elephants. In International wildlife trade: whose business is it?, pp. 61-77. World Wildlife Fund, Washington D.C., xix + 459 pp.
- 3475 EpdC FLACH, Edmund. (1994). New techniques used in the investigation and treatment of elbow lameness in an Asian elephant. In Proceedings of the Seventh U.K. Elephant Workshop, hosted by Cricket St Thomas Wildlife Park, Somerset, 20th October 1993 (ed. N. G. Spooner and J. A. Whitear), pp. 101-103. Published by North of England Zoological Society.
- 3476 BabB FLÉAUX, Rachel. (1998). Histoire d'une merveille d'ingénierie mécanique: Genèse de la trompe. Sciences et Avenir, 611:42-46. **Annotation:** Includes much information as in Shoshani's 1997 article (Reference no. 5137). Research on trunk musculature was conducted by J. Shoshani, but credit is given only to the artist (Utako Kikutani/courtesy of "Natural History"). Phylogram (p. 44) includes *Numidotherium* and *Phosphatherium*, not in the figure of Shoshani's article. Both articles have unique photographs of African elephants foraging while standing on hind legs [cover page of "Natural History Magazine", November 1997 (photograph by Ulrich Döring), and page 46 in Janvier 1998 issue of "Sciences et Avenir" (photograph by M. & C. Denis)] [JS].
- 3477 \*daU FLEMMING, Clare. (1998-99). Mammoth prospecting. Natural History, 107(10):78, 80. **Annotation:** Hyperdisease hypothesis: human populations expanded and colonized new land-masses during the Pleistocene, bringing virulent pathogens wiping out native animals. Whereas other *Mammuthus primigenius* became extinct by 10,000 years ago, those on Wrangel [Island] persisted an additional 6,000 years. Believed that because Wrangel's mammoths were such late survivors, if a deadly virus could be detected, fossil remains would be likeliest to have retained traces of it [E/ECM].
- 3478 BtqC FLYNN, Debbie and LEHNHARDT, John. (1995). Integrating the specialized training and reinforcement system (STARS) into the elephant management program at the National Zoological Park, Washington, D.C. Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 6 unnumbered pages.
- 3479 \*wvU FLYNN, L. J., PILBEAM, D., JACOBS, L. L., BARRY, J. C., BEHRENSMEYER, A. K., and KAPPELMAN, J. W. (1990). The Siwaliks of Pakistan: time and faunas in a Miocene terrestrial setting. Journal of Geology, 98:589-604.
- 3480 BarC FOERNER, Joseph J., HOUCK, Richard I., COPELAND, John F., SCHMIDT, Michael J., BYRON, H. T., and OLSEN, John H. (1994). Surgical castration of the elephant (*Elephas maximus* and *Loxodonta africana*). Journal of Zoo and Wildlife Medicine, 25(3):355-359. **Annotation:** Normally, when castrated, large animals require a lengthy period of clamping arteries and veins to the testicle to prevent exsanguination. In elephants, according to authors, apparently only a brief period of clamping of artery is necessary — the veins barely bleed at all when cut! The vessels have very fibromuscular walls which immediately veno-constrict and effectively prevent bleeding. This rete or complex vessels is necessary to prevent overheating of internal testes. I have not heard of such powerful vasoconstrictive force in other mammals, though all vessels constrict when traumatized to some extent (very useful in an evolutionary sense). Questions: Is this mechanism, also present in other mammals with intra-abdominal testicle, such as the hyrax and manatee? Is there a good evolutionary explanation for this anatomical/physiological structure, even in small mammals like the hyrax? Was this mechanism known in elephants throughout their evolutionary history? Is it related to the size of the animal or to their tropical environment? [DWA].
- 3481 \*hvU FORONOVA, Irina V. and ZUDIN, Alexander N. (1999). The structure of the lineage *Archidiskodon - Mammuthus* in Eurasia and peculiarities of its evolution. Deinsea, 6:103-117. **Annotation:** See Reference no. 3720 for details about "Deinsea 6" [ECM/JS].
- 3482 LuiW FORSE, Bill. (1987). Elephant decline blamed on ivory poachers. New Scientist, 114(1565):33; photo.
- 3483 LcwW FORTHMAN, Debra, ESAROVE, Wayne, JUVENAL, Uwilingiyimana, and ATHANASE, Nyamacumu. (1992). Report on Akagera orphaned elephant project. The 13th International Elephant Workshop, Atlanta, 1992, pp. 103-108. Zoo Atlanta, Georgia, 151 pp. **Annotation:** Akagera National Park is in Rwanda; close to 30 elephants reported [JS].
- 3484 \*gwU FOSSIL MAMMAL RESEARCH GROUP FOR NOJIRI-KO EXCAVATION (1993). On the occurrence of Naumann's Elephant (*Palaeoloxodon naumanni*) during the 6th Hill Site excavation. Bulletin of the Nojimko Museum, 1:167-174 [in Japanese with English abstract].
- 3485 BqtC FOURAKER, Michael. (1991). The role of management in an elephant program. Part I. Considerations for development of an elephant management program. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 127-128. Burnet Park Zoo, Syracuse, 161 pp.
- 3486 EmgC FOURAKER, Mike. (1997). Groucho at the Fort Worth Zoo. Journal of the Elephant Managers Association, 8(2):52-53. **Annotation:** "Groucho", a male Asian elephant, 27 years old, 2.9 meters (9 feet) tall at his back, weighs about 5,500 kg (12,000 pounds). Tusks measure close to one meter (1 yard) [JS].

- 3487 BvgB FOUTS, R. (1997). Next of kin: what chimpanzees have taught me about who we are. William Morrow, New York, 420 pp. **Annotation:** Apes and humans are more closely related than African and Asian elephants [E/ECM].
- 3488 LmwW FOWLER, Jim. (1996). The ghost elephants of Knysna. Lands' End Direct Merchants, July, 1996:2-3, 37. **Annotation:** "Recent reports suggest there are still three elephants living in the Knysna Forest, the indigenous cow and the two surviving transplants from KNP. Their fate, along with the heritage of the Knysna Forest itself, is in question" [E/ECM].
- 3489 BdqC FOWLER, M. E. (1993). Foot care in elephants. In Zoo and wild animal medicine (3rd edition) (ed. M. E. Fowler), pp. 448-453. W. B. Saunders Company, Philadelphia, Pennsylvania, 617 pp. **Annotation:** See Reference nos. 1009, 3773, 3985, 4604, 5039 [MPK].
- 3490 LivB FOX, David L. and FISHER, Daniel C. (1994). Tusk growth rate in *Loxodonta africana* as recorded by incremental laminae in tusk dentine. Journal of Vertebrate Paleontology, Abstracts of Papers, Volume 14, Supplement to Number 3:26A.
- 3491 +uvB FOX, John W., SMITH, C. B., and WILKINS, K. T. (eds). (1992). Proboscidean and Paleoindian interactions. Baylor University Press, Waco, Texas, 256 pp. **Annotation:** Hunting of proboscideans by primitive North American peoples. Reviewed in "Journal of Mammalogy", 75(2):556-557 [MPK].
- 3492 EyzC FOXWORTH, John. (1994). Stamps. The Detroit Free Press, April 10, 1993. **Annotation:** "King Tusk" (also known as "Tommy"), weight "7 1/2" tons, produced largest stamp cancellation ever, to cancel giant replica of new Circus stamps issued by postal service [E/ECM].
- 3493 \*avU FRAILEY, Carl D., CAMPBELL, JR., Kenneth E., and ROMERO-PITTMAN, Lidia. (1996). A new proboscidean from Amazonian Peru. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), p. 295. Oxford University Press, 472 pp.
- 3494 BdaC FRANZ, W., SEIDEL, B., and JACOB, A. (1989). Zur Operativen Behandlung einer pododermatitis purulenta beim indischen Elefanten (*Elephas maximus*) [Surgical treatment of Indian elephant (*Elephas maximus*) for purulent pododermatitis]. In Sonderdruck aus Verhandlungsbericht des 31 Internationalen Symposiums über die Erkrankungen der Zoo-und Wildtiere, Dortmund, 1989, pp. 195-198 [In German with summaries in German, English, French, Russian]. **Annotation:** Female elephant surgically treated for purulent pododermatitis of more than palm size. After-treatment successful without bandage and restricted to repeated wood-tar painting of large sole defect and supported by stable hygiene measures [E/ECM].
- 3495 BqbC FREDRICK, David. (1988). Renovation of door systems for handling Asian and African bull and cow elephants. In Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988, pp. 61-63. Jacksonville Zoological Park, Florida, 145 pp.
- 3496 BcwW FREEMAN Milton M. R. and KREUTER, Urs P. (eds). (1994). Elephants and whales: resources for whom? Gordon and Breach Publishers, 321 + xiii pp. **Annotation:** Management and conservation of largest land and sea mammals [E/ECM].
- 3497 LhuC FRISON, G. C. (1989). Experimental use of Clovis weaponry and tools on African elephants. American Antiquity, 54:766-784.
- 3498 \*huU FRISON, G. C. (1990). Clovis, Goshen, and Folsom: lifeways and cultural relationships. In Megafauna and man: discovery of America's heartland (ed. L. D. Agenbroad, J. I. Mead, and L. W. Nelson), pp. 100-108. The Mammoth Site of Hot Springs, South Dakota, Inc., Hot Springs, Scientific Papers, Volume 1, 149 pp.
- 3499 BapU FROELICH, David and KALB, Jon E. (1995). Internal reconstruction of elephantid molars: applications for functional anatomy and systematics. Paleobiology, 21(3):379-392.
- 3500 BqmC FROST, John. (1987). A survey of elephants in captivity in the British Isles. Self published.
- 3501 BnqC FROST, John. (1991). A short analysis of a U.K. browse survey. In Proceedings of The Fifth Elephant Workshop, hosted by Windsor Safari Park, Windsor, United Kingdom, 20 September 1991, pp. 12-21. **Annotation:** Survey of 25 institutions by Welsh Mountain Zoo, England, on browse eaten by elephants. Appendices list poisonous and non-poisonous plants [ECM].
- 3502 LwjW FRYXELL, J. M. and SINCLAIR, A. R. E. (1988). Causes and consequences of migration by large herbivores. Trends in Ecology & Evolution, 3(9):237-241. **Annotation:** *Loxodonta africana* is mentioned only in Table 1 [MPK].
- 3503 \*vaU GABUNIA, L. K. and DUBROVO, Irina A. (1990). The classification and stratigraphic significance of the genus *Archidiskodon* (Mammalia, Proboscidea). Byulleten Moskovskogo Obshchestva Ispytatelei Prirody, Otdel Geologicheskii, 65:75-82.
- 3504 LapB GAETH, A. P., SHORT, R. V., and RENFREE, M. B. (1999). The developing renal, reproductive, and respiratory systems of the African elephant suggest an aquatic ancestry. Proceedings of the National Academy of Science, USA, 96(10):5555-5558. **Annotation:** Studied a series of African elephant embryos and fetuses, estimated gestational ages 58-166 days, and found nephrostomes, a feature of aquatic vertebrates, in the mesonephric kidneys at all stages of development, a feature never recorded in the mesonephric kidneys of other viviparous mammals [E/ECM, abstract]. Janis, 1988 Reference no. 3826, p. 293, fig 1(b) presents "new views" and depicts that "sire-nians", "desmostylians", "*Moeritherium*", and "proboscideans" share aquatic adaptations. Gaeth *et al.*, 1999 text reads as though the "aquatic ancestry" hypothesis was their new idea and not that of Janis, 1988. See Reference no. 3763, p. 1263 [JS].
- 3505 EdqC GAGE, L. J., BLASKO, D., FOWLER, M. E., and PASCOE, J. (1995). Surgical removal of infected phalanges from an Asian elephant (*Elephas maximus*). 1995 Joint Proceedings of the American Association of Zoo Veterinarians/Wildlife Disease Association/American Association of Wildlife Veterinarians, 309.
- 3506 BqtC GAGEN, Judy. (1997). What you can learn from real life experiences — a case history. Journal of the Elephant Managers Association, 8(2):35-38. **Annotation:** Dealing with media in case of death of an animal [JS].
- 3507 \*cwU GAGNON, Mario. (1997). Ecological diversity and community ecology in the Fayum sequence (Egypt). Journal of Human Evolution, 32:133-160. **Annotation:** Paleoecological interpretation of continental deposits found in Jebel Qatrani Formation of Fayum region. Proboscidea, Hyracoidea, Embrithopoda, and other taxa mentioned in Table 1, p. 137, and Table 2, p. 138-9 [E/ECM].
- 3508 LucW GAINES, E. (1992). Interview with Dr. Richard Leakey (Part I). Swara, 15(1):8-11. **Annotation:** Reviews situation of elephant populations in Kenya, possible problems with transferring African elephant from Appendix I to Appendix II and need to accommodate both people and elephants in wildlife management programs and implementation [ID-H/M&DR].
- 3509 LumW GAKAHU, C. G. (1991). Forest elephant population in the Central African Republic and Congo. Pachyderm, 14:3-19.
- 3510 LcwW GAKAHU, C. G. (1992). CITES and survival of the African elephant and rhinoceros. In Managing protected areas in Africa: a report from a

- workshop on protected area management in Africa, Mweka Tanzania (compiler Walter J. Lusigi), pp. 157-162. World Bank, Washington.
- 3511 LnwW GAKAMI, N. (1996). The impacts of elephant on the vegetation of Samburu National Reserve. D. Phil. Thesis, Moi University, Kenya.
- 3512 BqtC GALLOWAY, Marie. (1991). Update on 1990 chaining survey. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 63-64. Burnet Park Zoo, Syracuse, 161 pp.
- 3513 BqtC GALLOWAY, Marie. (1995). Update - chaining patterns in elephant management in North American institutions 1976-1995. Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 10 unnumbered pages.
- 3514 BqgC GALLOWAY, Marie. (1997). Elephant husbandry goals at the National Zoo. Journal of the Elephant Managers Association, 8(2):61-62. **Annotation:** Safety, welfare, medical, enrichment, education, research [JS].
- 3515 BkoC GANHAO, M. F., HATTINGH, J., BRAACK, L. E. O., RAATH, J. P., and PITTS, N. I. (1989). Blood composition of wild animals during immobilization. South African Journal of Science, 85:281-282.
- 3516 BbrB GARAI, Marion E. (1990). Special relationships between female Asian elephants (*Elephas maximus*) in captivity. Diplomarbeit, Zoological Institute, University of Zurich, 51 pp. (unpublished thesis). **Annotation:** Sequence of hierarchy from individuals to a herd includes: for *Loxodonta*, matriarch → family unit → kin or bond groups → clan → sub-population → population, and for *Elephas*, nursing units → juvenile care units → mixed groups → herd. From p. 42: "... no matriarchs have been verified for Asian elephants (Kurt, 1986)" [MPK].
- 3517 EbrC GARAI, Marion E. (1992). Special relationships between female Asian elephants (*Elephas maximus*) in zoological gardens. Ethology, 90:187-205.
- 3518 LcwW GARAI, Marion E. (1994). The distribution of elephants in South Africa: October 1994 update. TEIC Newsletter, 3, 5 pp.
- 3519 LkqC GARAI, Marion E. (1994). The effects of boma design on stress-related behaviour in juvenile translocated African elephants. Pachyderm, 18:55-60. **Annotation:** Experience of confining translocated juveniles in bomas or pens of different types in South Africa. Confinement with restricted food and view of outside area tends to bring out aggressive behavior. Open paddocks with electric fences recommended over closed wooden paddocks [ID-H/M&DR].
- 3520 LcbW GARAI, Marion E. (1994). The orphans: how translocated juvenile elephants are fareing. The Rhino & Elephant Journal, 8:38-40. **Annotation:** Initial study attempts in ongoing research program focusing on behavior and social development of groups of translocated juvenile elephants on private ranches in South Africa [ID-H/M&DR].
- 3521 LcwW GARAI, Marion E. (1995). Translocated Elephant Information Centre: analyses of questionnaires, April 1995. TEIC and EMOA Newsletter, 4, 10 pp.
- 3522 LbcW GARAI, Marion E. (1997). Development of social behaviour in translocated juvenile African elephant. The Rhino & Elephant Journal, 11:35-37. **Annotation:** Study of translocated juvenile African elephants from KNP's capture and culling operations to assess how they re-organized and re-structured socially, if any behavioral signs of stress displayed [E/ECM].
- 3523 LbgB GARAI, Marion E. (1998). Social organisation in translocated juvenile African elephants; the dominance hierarchy and an intriguing behaviour [Abstract]. Pachyderm, 25:42-43 [in English and French]. **Annotation:** Five groups penned and four groups free ranging translocated juvenile elephants studied to assess if they establish dominance hierarchy, if this hierarchy is transitive, and whether their dominance can be measured by the direction of aggressive and submissive behavior [E/ECM].
- 3524 LkbC GARRETT, Bill. (1997). Wildlife: Modern Maturity's year of the American photographer. Modern Maturity, 40R(4):59-63. **Annotation:** Photos of African elephants by professional photographer Frans Lanting. Best artists often come to know their subjects as well as scientists who study them. Professional wildlife photographers are powerfully effective proselytizers for critical need to preserve natural ecosystems [E/ECM].
- 3525 LcuW GARRISON, John L. (1994). The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the debate over sustainable use [B: Downlisting the African elephant]. Pace Environmental Law Review, 12(1):301-392.
- 3526 LjwW GARSTANG, Michael, LAROM, David Lee, RASPET, Richard, and LINDEQUE, Malan. (1995). Atmospheric controls on elephant communication. The Journal of Experimental Biology, 198:939-951. **Annotation:** Meteorological measurements in late dry season (Namibia) suggest atmospheric conditions conducive to long range transmission of infrasound utilized by elephants associated with strong diurnal cycle. Strong temperature inversions form at the surface before sunset and decay with sunrise. Range over which elephants communicate more than doubles at night. Optimum conditions occur 1-2 hours after sunset on clear, relatively cold, calm nights when ranges of over 10 km are likely [ID-H/M&DR].
- 3527 \*pvU GARUTT, Vadim E. (1989). On the necessity of (?)secretion in neotype mammoth *Mammuthus primigenius* (Blumenbach, 1799). Papers of the Academy of Science of the USSR, 307(5):1232-1234 [in Russian].
- 3528 \*vaU GARUTT, Vadim E. (1991). The Phanagorian elephant *Phanagoroloxodon mammontoides* Garutt, 1957, and the problem of evolutionary ways in the subfamily Elephantinae. The Sixth Coordination Conference for the Study of Mammoths and Mammoth Fauna. Theses of reports. The Zoological Institute of the Academy of Sciences of the USSR, 23-23 [in Russian].
- 3529 \*vaU GARUTT, V[adim]. E. (1992). The Phanagorian elephant *Phanagoroloxodon mammontoides* Garutt, 1957, and the question of the ways of evolution of the subfamily Elephantinae. In. History of large mammals and birds of northern Eurasia (ed. I. E. Kuzmina and G. F. Baryshnikov), pp. 29-40. Petersburg [in Russian]. Trudy Zoologicheskogo Instituta, 158 pp.
- 3530 \*vaU GARUTT, Wadim[Vadim] E. (1995). The Phanagorian elephant *Phanagoroloxodon mammontoides* Garutt, 1957 from the Pliocene of the north-western Caucasus. 2. Cranium, 12(2):87-92 [summaries in English and Dutch].
- 3531 \*vaU GARUTT, Wadim[Vadim] E. (1998). Is there a genus *Archidiskodon* Pohlig, 1885, of the family Elephantidae Gray, 1821? Cranium, 15(1):15-20 [summaries in English and Dutch]. **Annotation:** Undertakes detailed comparison of skeleton and teeth identified as *Archidiskodon* and *Mammuthus*. There are 23 different features and 20 shared ones [E/ECM, summary].
- 3532 \*vaU GARUTT, Wadim[Vadim] E. (1998). A skeleton of the Southern Elephant, *Archidiskodon meridionalis* (Nesti, 1825), from a sand-pit near

- Georghievsk, Northern Caucasus, Russia. Cranium, 15(1):33-38 [summaries in English and Dutch]. **Annotation:** Nearly complete skeleton male *Archidiskodon meridionalis*, found in 1960 in Northern Caucasus, described and measured [E/ECM, summary].
- 3533 \*avU GARUTT, Vadim E. and NIKOLSKAJA, V. N. (1988). Über das Skelett vom Steppenelefanten aus Edersleben. Beiträge zur Heimatforschung, Sangerhausen, Spengler-Museum, 9:3-13.
- 3534 \*vwU GARUTT, Vadim E., AVERIANOV, Alexander O., and VARTANYAN, S. L. (1993). On the systematic position of isolated population of mammoth *Mammuthus primigenius* (Blumenbach, 1799) of Wrangel Island (north-eastern Siberia). Papers of the Russian Academy of Sciences, 332(6):799-801 [in Russian with English summary or abstract]. [Alternative translation — On the systematic position of Holocene dwarf mammoths, *Mammuthus primigenius* (Blumenbach, 1799) from Wrangel Island (North East Siberia). Doklady Akademii Nauk, 332:799-801 [in Russian].
- 3535 \*vhU GARUTT, Vadim E., GENTRY, Anthea, and LISTER, Adrian M. (1990). *Mammuthus Brookes*, 1828 (Mammalia, Proboscidea): proposed conservation, and *Elephas primigenius* Blumenbach, 1799 (currently *Mammuthus primigenius*): proposed designation as the type species of *Mammuthus*, and designation of a neotype. Bulletin of Zoological Nomenclature, 47(1):38-44.
- 3536 UdqC GASKIN, Jack M., ANDERSEN, T. L., OLSEN, J. H., ACHOBERT, E. E., BUESSE, D., LYNCH, J. D., WALSH, M., CITINO, S., and MURPHY, D. (1987). Encephalomyocarditis in zoo animals: recent experiences with the disease and vaccination. Proceedings, First International Conference of Zoo and Avian Medicine, Oahu, Hawaii, p. 491.
- 3537 BdqC GASKIN, Jack M. (1988). Encephalomyocarditis: a potentially fatal virus infection of elephants. In Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988, pp. 133-136. Jacksonville Zoological Park, Florida, 145 pp.
- 3538 LdqC GASS, H. (1987). Complication in tusk eruption in an African elephant, *Loxodonta africana*. Kleintierpraxis, 322(8):387-388.
- 3539 LtqC GAVRON, Jeremy. (1993). The last elephant: an African quest. Harper Collins, London, xiii + 237 pp. **Annotation:** Also published as: 1993, King Leopold's dream: travels in the shadow of the African elephant, Pantheon Books, New York, 288 pp. [MPK]. See Reference nos. 1675, 3253, 3800, 3801, 3951, 5209, 5631, 5632 [ECM].
- 3540 EeqC GAYER, Richard. (1992). Elephants save forests: forests save elephants. The role of the timber elephant in sustainable tropical forestry. Research and Exploration, 8(2):133-135.
- 3541 \*vgU GAZIRY, Abdul Wahid. (1987). New mammals from the Jabel Zaltan site, Libya. Senckenbergiana Lethaea, 68:69-89. **Annotation:** *Choerolophodon zaltaniensis* n. sp., pages 69-70 [ECM].
- 3542 \*vwU GAZIRY, Abdul Wahid. (1987). Remains of Proboscidea from the early Pliocene of Sahabi, Libya. In Neogene Paleontology and Geology of Sahabi (ed. N. T. Boaz, Ali El-Arnauti, A. W. Gaziry, J. de Heinzelin, and D. D. Boaz), pp. 183-203. Alan R. Liss, New York, 401 pp.
- 3543 \*vaU GAZIRY, Abdul Wahid. (1994). *Bunolophodon grandidens* n. sp. aus der Oberen Sußwassermolasse Süddeutschlands; zur Phylogenie der trilophodonten Mastodonten (Mammalia, Proboscidea). Verhandlung des Naturwissenschaftlichen Vereins in Hamburg, (NF) 34:113-33.
- 3544 \*vwU GAZIRY, Abdul Wahid. (1994). Über Mastodonten (Mammalia, Proboscidea) aus den Dinotheriensanden (M-Europa; Ober-Miozän): materialien des Hessischen Landesmuseums Darmstadt. Verhandlung des Naturwissenschaftlichen Vereins in Hamburg, (NF) 34:95-112.
- 3545 \*vaU GAZIRY, Abdul Wahid. (1997). Die Mastodonten (Proboscidea, Mammalia) aus Dorn-Dürkheim 1 (Rheinhessen). In Die Säugetiere aus dem Turolium von Dorn Dürkheim 1 (Rheinhessen, Deutschland). Teil 1: Carnivora, Proboscidea (Tetralophodontidae), Perissodactyla (Rhinocerotidae, Equidae), Artiodactyla (Suidae), (ed. Jens Lorenz Franzen), pp. 73-115. Courier Forschungsinstitut Senckenberg, 197:73-115.
- 3546 \*vwU GENTRY, A[bdul]. W[ahid]. (1987). Mastodons from the Miocene of Saudi Arabia. Bulletin of the British Museum (Natural History) Geology, 41:395-407.
- 3547 EdaC GEORGE, P. O., CHEERAN, J. V., MENON, C. P. G., and GEORGE, T. J. (1989). Treatment of a wound on the trunk of an Indian elephant (*Elephas maximus*): a case report. Indian Journal of Veterinary Surgery, 10(1):76-79.
- 3548 BgxW GEORGIADIS, Nicholas. (1992). Population genetics of African elephants. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), p. 98. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** Biochemistry, conservation, ivory, poaching [MPK].
- 3549 LxiW GEORGIADIS, Nicholas. (1993). Fingerprinting ivory. Wildlife Conservation, 96(2):72-73. **Annotation:** Obtaining tissue biopsies by darting animals, using tissue on dart to check genetic variation of elephants in eastern and southern Africa. Project augments ongoing ivory source analysis [ID-H/M&DR].
- 3550 LwcW GEORGIADIS, Nicholas. (1994). Structure and history of African elephant populations - West and Central Africa [Section B]. Forest elephant biology in DSR. AECCG/EDG, pp. 25-44. (EC African Elephant Conservation Programme 1992-1994; volume 2).
- 3551 LxcW GEORGIADIS, Nicholas. (1996). Applications of evolutionary genetics to elephant conservation using tissue samples. In Studying elephants (ed. K. Kangwana), p. 178. African Wildlife Foundation, Nairobi, Kenya, 178 pp.
- 3552 LixW GEORGIADIS, Nicholas, PATTEN, John, and WESTERN, David. (1990). DNA and the ivory trade: how genetics can help conserve elephants. Pachyderm, 13:45-46. **Annotation:** If ivory trade is not to threaten African elephant survival, effective regulation needed. Prerequisite for efficient control include ability to discriminate between tusks from legally and illegally exploited populations. Reviews pilot study to identify parent population by using genetic markers obtained from DNA of tissue attached to tusks [ID-H/M&DR].
- 3553 LxwW GEORGIADIS, Nicholas, BISCHOF, Laura L., TEMPLETON, A., PATTON, John, KARESH, William, and WESTERN, David. (1994). Structure and history of African elephant populations: I. Eastern and southern Africa. Journal of Heredity, 85(2):100-104. **Annotation:** Patterns of restriction site variation within mitochondrial DNA of 270 individuals from 10 protected areas in 5 countries, used to examine current structure of savannah elephant populations and infer historical patterns of gene flow across eastern and southern Africa. Phylogeographic analysis revealed evidence of protracted gene flow across continent: one relatively derived haplotype found at all sampling locations, and haplotypes representing exceptionally divergent mitochondrial clades found to coexist at distant sampling locations [ID-H/M&DR].

- 3554 \*vwU GERAADS, D. (1989). Vertébrés fossiles du Miocène supérieur du Djebel Krechem el Artsouma (Tunisie centrale). Comparaisons biostratigraphiques. *Géobios*, 6(22):777-801.
- 3555 LzcW GETHOI, Mutu G. (1991). An elephant's cry. *Swara*, 14(4):25. **Annotation:** Prayer pleading to save elephants [ECM].
- 3556 LiwW GHAZI, Polly. (1997). Too dangerous to trade? *New Scientist*, 153(2068):12-13. **Annotation:** "As elephant populations soar, southern African nations are lobbying to restore the international trade in ivory. But a secret UN report undermines their campaign." "Enforcement of Zimbabwe's ivory laws is grossly inadequate." Minimum number of elephants in some countries/regions in Africa. Botswana 63,000; Zimbabwe 56,300; Zambia 19,700; South Africa 9,990; Namibia 5,840; Tanzania 73,460; Kenya 13,830; Central Africa 7,320; West Africa 2,760.
- 3557 \*avU GHEERBRANT, Emmanuel. (1998). The oldest known proboscidean and the role of Africa in the radiation of modern orders of placentals. *Bulletin of the Geological Society of Denmark*, 44:181-185 [in English, summary in Danish]. **Annotation:** *Phosphatherium escuilliei* is known from two maxilla fragments preserving most of jugal dentition, found in northeastern part of Ouled Abdoun Basin [E/SKB].
- 3558 \*avU GHEERBRANT, Emmanuel, SUDRE, Jean, and CAPPETTA, Henri. (1996). A Palaeocene proboscidean from Morocco. *Nature*, 383(6595):68-70. **Annotation:** Discovery of new genus [*Phosphatherium escuilliei*, gen. et. sp. nov.], about 7 million years older than *Numidotherium* [E/ECM].
- 3559 \*vaU GHEERBRANT, Emmanuel, SUDRE, Jean, CAPPETTA, Henri, and BIGNOT, Gérard. (1998). *Phosphatherium escuilliei* du Thanétien du Bassin des ouled Abdoun (Maroc), plus ancien proboscideen (Mammalia) d'Afrique. *Geobios*, 30(2):247-269 [in French; abstract, figure captions in English and French].
- 3560 \*vwU GIBBARD, Philip L., WEST, Richard G., ZAGWIJN, Waldo H., BALSON, P. S., BURGER, A. W., FUNNELL, Brian M., JEFFERY, D. H., DE JONG, J., VAN KOLFSCHOTEN, Thijs, LISTER, A. M., MEIJER, Tom, NORTON, P. E. P., PREECE, Richard C., ROSE, Jim, STUART, Anthony J., WHITEMAN, Colin A., and ZALASIEWICZ, Jan A. (1991). Early and middle Pleistocene correlations in the southern North Sea basin. *Quaternary Science Reviews*, 10:23-52.
- 3561 LmwW GIBSON, D. St. C. (1989). How elephant surveys are done. *Zimbabwe Wildlife*, 57:9, 11, 13.
- 3562 LmcW GIBSON, D. St. C., CRAIG, G. Colin, and RAPELANG, M. Masogo. (1998). Trends of the elephant population in northern Botswana from aerial survey data. *Pachyderm*, 25:14-27. **Annotation:** Methods and results of aerial surveys since 1973; presents history of elephant population in Botswana [E/ECM].
- 3563 LcjW GIBSON, J. (1990). Game-viewing tourism. In *The Future of Botswana's Elephants* (ed. P. Hancock), pp. 57-59. Proceedings of Kalahari Conservation Society Symposium on Elephants (Gaborone, Botswana, 10 November 1990), 96 pp.
- 3564 BqtC GIDDIS, Ron. (1991). The role of management in an elephant program. Part II. Instituting a formalized elephant management program. *Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991*, pp. 129-130. Burnet Park Zoo, Syracuse, 161 pp.
- 3565 LbrC GIDDIS, Ron. (1992). Musth behavior in an adolescent African bull elephant. *The 13th International Elephant Workshop, Atlanta, 1992*, pp. 59-63. Zoo Atlanta, Georgia, 151 pp.
- 3566 EqtC GILBERT, Bil. (1990). Once a malcontent, Ruby has taken up brush and palette. *Smithsonian*, 21(9):40-46, 48, 50-51. **Annotation:** "Ruby", an Asian cow, is a gallery hit — already \$30,000 worth [E/ECM].
- 3567 \*vwU GILLETTE, D. D. and MADSEN, D. B. (1993). The Columbian mammoth, *Mammuthus columbi*, from the Wasatch Mountains of central Utah. *Journal of Paleontology*, 67(4):669-680.
- 3568 \*avU GINGERICH, Phil D., RUSSELL, D. E., and WELLS, N. A. (1990). Astragalus of *Anthracobune* (Mammalia, Proboscidea) from the early-middle Eocene of Kashmir. *Contributions from the Museum of Paleontology, University of Michigan*, 28(3):71-77.
- 3569 \*wvU GINSBURG, L. (1990). The faunas and stratigraphical subdivisions of the Orleanian in the Loire basin (France). In *European Neogene mammal chronology* (ed. E. H. Lindsay, V. Fahlbusch, and P. Mein), pp. 157-176. Plenum Press, New York [copyright date, 1989], 658 pp.
- 3570 BbtC GISI, Brian. (1997). Stimulus: eliciting response. *Journal of the Elephant Managers Association*, 8(2):54-56. **Annotation:** "If we seek to control the stimuli that an animal encounters, then it is important to truly understand what stimulus is and how it functions in the conditioning process" [E/JS].
- 3571 LgjW GLASSMAN, Molly Dunham. (1993). Review of "Elephants calling" by Katharine Payne, published 1992 by Crown Publishers, New York, 36 pp. *Circus Report*, No. 42:6. **Annotation:** Katharine Payne joined Cynthia Moss and Joyce Poole at ANP and wrote about a look at elephant life as experienced by a calf, "Raoul", who is born as the book opens [E/ECM].
- 3572 BrqC GLATSTON, A. (1991). Unieke observaties van geboorte olifantje. *Dieren*, 7(6):164-167. **Annotation:** Birth, captivity [MPK].
- 3573 LbrW GLAUBRECHT, M. (1995). Altruismus: egoistische Gene. *Abenteuer Natur*, 2:44-51 [in German]. **Annotation:** Social relations, mortality, parenting, HNP [MPK].
- 3574 LchW GLEIBER, John. (1992). Books & Reports: "Elephants: the deciding decade", edited by Ronald Orenstein. *The Animal Welfare Institute Quarterly*, 41(1):4.
- 3575 LciW GLENNON, Michael J. (1990). Has international law failed the elephant? *American Journal of International Law*, 84(1):1-43. **Annotation:** Quandary in elephant conservation, particularly African elephants, with respect to economics of ivory trade, lack of effective law enforcement, poverty, economic development in range states, human population and land use conflict with wildlife, and unsettled civil conditions. Development and implementation of CITES, shortcomings of Convention, aspects providing for greater effectiveness of CITES, aspects of rights, obligations associated with global environmental resources, series of actions, which would allow for effective protection of elephants [ID-H/M&DR].
- 3576 LbqC GLOVER, Alan. (1992). Observations on the daily activity patterns of the three female African elephants at the Western Plains Zoo. *The 13th International Elephant Workshop, Atlanta, 1992*, pp. 92-102. Zoo Atlanta, Georgia, 151 pp.
- 3577 EaQC GODAGAMA, W. K., WEMMER, C., and RATNASOORIYA, W. D. (1998). The body condition of Sri Lankan domesticated elephants (*Elephas maximus maximus*). *Ceylon Journal of Science*, 26:1-5.

- 3578 **EaqC** GODAGAMA, W. K., WEMMER, C., and RATNASOORIYA, W. D. (1998). Spinal conformation of domesticated of Sri Lankan elephants (*Elephas maximus maximus*). Ceylon Journal of Science, 26:7-11.
- 3579 **\*avU** GÖHLICH, Ursula Bettina. (1998). Elephantoidea (Proboscidea, Mammalia) aus dem Mittel- und Obermiozän der Oberen Süßwassermolasse Süddeutschlands: Odontologie und Osteologie. Münchner Geowissenschaftliche Abhandlungen, 36:1-246 pp. [in German, with abstracts in German, English, French]. **Annotation:** Illustrations and photographs of most of skeletal elements clearly labeled. On pages 107-8 are skeletons of *Gomphotherium*. Data/discussion on taxonomic status of: *G. angustidens*, *G. subtapiroideum*, *G. steinheimense* (includes *Bunolophodon grandidens*), *G. aff. steinheimense*, *Tetralophodon longirostris*, and *Zygodolophodon turicensis* [JS/ECM].
- 3580 **\*vaU** GÖHLICH, Ursula Bettina. (1999). Order Proboscidea. In The Miocene land mammals of Europe (ed. G. Roessner and K. Heissig), pp. 157-168. Verlag Dr. F. Pfeil, Munich, 515 pp. **Annotation:** *Anancus*, *Archaeobelodon*, *Choerolophodon*, *Deinotherium*, *Gomphotherium*, *Mammot*, *Mammuthus*, *Platybelodon*, *Prodeinotherium*, *Stegolophodon*, *Stegotrabelodon*, *Tetralophodon*, and *Zygodolophodon*. Photographs of skeletons of *Prodeinotherium cf. bavaricum* and *G. aff. steinheimense* [JS/ECM].
- 3581 **EqTC** GOKULA, V. (1994). Status and management of temple elephants with forest camp and zoo elephants - a comparative study. Zoo Zen, 10:4.
- 3582 **EqbC** GOKULA, V. (1996). Status of temple elephant management in Tamil Nadu, southern India. Gajah, 15(January):37-40. **Annotation:** Current temple management poor from lack of knowledge on elephant behavior, temple elephants for adornment rather than conservation. Practice can be improved by enhancing conditions for encouraging study of domestic elephants, increasing people's awareness [E/ECM].
- 3583 **BopC** GOODWIN, Thomas E. (1997). Notes from a fledgling elephant researcher. Journal of the Elephant Managers Association, 8(2):42-48. **Annotation:** Chemical components of temporal glands in elephants [JS].
- 3584 **BopC** GOODWIN, Thomas E., RASMUSSEN, L. E. L., and RIDDLE, H. S. (1998). Methods for analysis of volatile compounds from temporal glands. Third International Elephant Research Symposium, Springfield, Missouri, June, 1998.
- 3585 **\*avU** GORBACHEV, A. L. and ZADAL'SKII, S. V. (1989). Skin morphology of the mammoth *Mammuthus primigenius* (Proboscidea, Elephantidae) from Enmynveem River. Zoologicheskii Zhurnal, 68(3):107-114. **Annotation:** cf. Reference no. 4275 [JS].
- 3586 **LiuW** GORDON, N. (1991). Ivory knights: man, magic and elephants. Chapman's, London, 206 pp. **Annotation:** Ivory poaching within MNP and SGR in 1989-1990 finds game scouts, local and national politicians involved in killing of thousands of elephants for ivory. Author also finds dedicated, persistent men attempting to enforce the law [ID-H/M&DR].
- 3587 **\*uhU** GOREN-INBAR, Naama, LISTER, Adrian, WERKER, E., and CHECH, Mario A. (1994). A butchered elephant skull and associated artifacts from the Acheulian site of Gesher Benot Ya'aqov, Israel. Paleorient, 20: 99-112.
- 3588 **\*hzU** GOULD, Stephen J. (1996). A lesson from the old masters. Natural History 8/96 pages 16-22, 58-9. **Annotation:** Cave artists depicted mammoths with fatty shoulder humps - soft feature unknown to us from fossil bones [E/JS]
- 3589 **BgjB** GOULD, Edwin, MCKAY, George, and KIRSHNER David (illustrator). (1998). Encyclopedia of mammals, second edition. Academic Press, New York, 240 pp. [First edition 1990 as "Encyclopedia of animals: mammals", Gallery Books, New York, 240 pp.]. **Annotation:** Elephants on pages 167-173. This book was reprinted as "The Little Guides: Mammals" Consultant editor George McKay, published (1999) by Weldon Owen Inc., San Francisco, California, 320 pp.; elephants on pages 222-229. See Reference no. 5138 [JSG].
- 3590 **LzbW** GOWDY, Barbara. (1999). The white bone. Metropolitan Books, Henry Holt and Company, New York, 330 pp. Published in 1998 by HarperCollins, Canada. **Annotation:** Novel imagined entirely from perspective of elephants. Anthropomorphic. Thrilling journey into minds of African elephants as they struggle to survive in land wracked by drought and slaughter [E/ECM].
- 3591 **\*evU** GRAHAM, Russell W. (1990). Evolution of new ecosystems at the end of the Pleistocene. In Megafauna and man: discovery of America's heartland (ed. L. D. Agenbroad, J. I. Mead, and L. W. Nelson), pp. 54-60. The Mammoth Site of Hot Springs, South Dakota, Inc., Hot Springs, Scientific Papers, Volume 1, 149 pp.
- 3592 **\*vwU** GRAHAM, Russell W. (1998). The Pleistocene terrestrial mammal fauna of North America. In Evolution of Tertiary Mammals of North America, Vol. 1: terrestrial carnivores, ungulates, and ungulatelike mammals (ed. C. M. Janis, K. M. Scott, and L. L. Jacobs), pp. 66-71. Cambridge University Press, Cambridge.
- 3593 **\*ehU** GRAHAM, Russell W. and KAY, M. (1988). Taphonomic comparisons of cultural and noncultural faunal deposits at the Kimmswick and Barnhart sites, Jefferson County, Missouri. Bulletin of the Buffalo Society of Natural Sciences, 33:227-240.
- 3594 **\*wvU** GRAHAM, Russell W., SEMKEN, H., and GRAHAM, M. (eds). (1987). Late Quaternary mammalian biogeography and environments of the great plains and prairies. Illinois State Museum Scientific Papers, Vol. 22, xiv + 491 pp.
- 3595 **\*wgU** GRAHAM, Russell W., LUNDELIUS, E. L., Jr., GRAHAM, M. A., and STEARLEY, Ralph F. (1991). FAUNMAP: computerized data base on the distribution of late Quaternary mammals. Journal of Vertebrate Paleontology, Abstracts of Papers, Volume 11, Supplement to Number 3:32A.
- 3596 **LdaW** GRANT, W. Stewart. (1988). Anthrax: the silent killer. African Wildlife, 42(4):220-222.
- 3597 **LgcW** GRAY, Julie (ed.). (1997). African elephant *Loxodonta africana*. TRAFFIC Bulletin, 17(1):12-14.
- 3598 **\*vwU** GRAYSON, D. K. (1989). The chronology of North American late Pleistocene extinctions. Journal of Archaeological Science, 16:153-165.
- 3599 **LfzW** GREAVES, N. (1988). When hippo was hairy: and other tales from Africa. Bok Books International, Durban, South Africa, 143 pp. **Annotation:** Mentions *Loxodonta africana*, mythology [MPK].
- 3600 **LwfW** GREAVES, Nick. (1993). When lion could fly: and other tales from Africa. Bok Books International, Durban, South Africa, 144 pp. **Annotation:** *Loxodonta africana*, dung-beetles, mythology [MPK].
- 3601 **LceW** GREAVES, Nick. (1996). Hwange: retreat of the elephants. Southern Book Publishers (Pty) Ltd., Cape Town, 134 pp. **Annotation:** Foreword by William Travers. Elephants and other animals are depicted and described in their ecosystem. Includes glossary, bibliography, index. On page 37 is a chart of teeth and age: tooth M1 appears at about 1 year of age, M2 at 2, M3 at 6, M4 at 15, M5 at 28, tooth M6 appears at about 47 years of age. Reviewed in "Keeping Track", April/May, 1997 by Jullienne Du Toit [JS].
- 3602 **LmwW** GREEN, A. A. (1988). Elephant of the Pendjari-Singou-Mekrou region, West Africa. Mammalia, 52(4):557-565. **Annotation:** Benin,

- Burkina Faso and Niger come together in a protected area of more than 25,000 sq kms, where more than 4,000 savanna elephants live in three apparently discrete groups. Pendjari group of about 1,000 head occupies range about 3,500 sq kms in Pendjari Park and Pendjari Reserve (Benin). Singou group of about 1,400 head occupies range about 5,500 sq kms in Singou, Pama and Arli reserves (Burkina Faso). Mekrou group of about 1,800 head occupies range about 12,000 sq kms in W National Park (3 countries) and Djona Reserve (Benin). Groups, ranges described. Recommendations made for protection [ID-H/M&DR].
- 3603 LvjW GREENWELL, Richard. (1993). Little elephant stories. BBC Wildlife, 11(5):53. **Annotation:** Reviews evidence for presence of pygmy elephants; discusses 1982 Harald Nestroy photo (published in color, looks just like a herd of *cyclotis*). He writes, "Eisentraut and Bohme were so impressed by Ambassador Nestroy's evidence that they published a further article in the 'Journal of the Cologne Zoo'" (Vol. 33, No. 4) [IMR].
- 3604 LiuW GREENFIELD, Richard. (1991). Where has all the ivory gone? Africa Events, March:42-45. **Annotation:** Special report on ivory smuggling. Traces illegal sale of ivory in Somalia and Kenya and notes specific families or people including those of present leader of Somalia, Siyad Barre [ID-H/M&DR].
- 3605 \*dvU GREENWOOD, Alex D. (1999). Hunting ancient viruses: scientists probe mammal bones for fossil DNA. Discovering Archaeology, 1(5):57.
- 3606 UaoU GREENWOOD, Alex D. and PÄÄBO, Svante. (1999). Nuclear insertion sequences of mitochondrial DNA predominate in hair but not in blood of elephants. Molecular Ecology, 8(1):133-137.
- 3607 LrpU GREYLING, M. D., VAN AARDE, Rudi J., and POTGIETER, H. C. (1997). Ligand specificity of uterine oestrogen and progesterone receptors in the subadult African elephant, *Loxodonta africana*. Journal of Reproduction and Fertility, 109(2):199-204.
- 3608 LrpU GREYLING, M. D., FORD, M., POTGIETER, H. C., and VAN AARDE, Rudi J. (1998). Influence of gestation on uterine endometrial steroid receptor concentrations in the African elephant, *Loxodonta africana*. Biology of Reproduction, 58(1):60-64.
- 3609 LicW GRIMM, Ute, SLAMA, Daniel, and FLORIO, Pier Lorenzo. (1989). The ivory trade in West Germany, Austria, and Italy. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 3.5. The Ivory Trade Review Group, Oxford. **Annotation:** Export and import statistics for the countries between 1979 and 1986 noting ivory industry within the countries, particularly Germany [ID-H/M&DR].
- 3610 LjrW GRIMWADE, J. (1996). Doing the wild thing. Australian Way [the Qantas inflight magazine] (October 1996): 66-68. **Annotation:** Behavior, musth, HNP, and regarding "Presidential Herd" and Ms. Debbie Grant [MPK].
- 3611 LdaW GROBLER, D. G., RAATH, Jacobus, P., BRAACK, L. E. O., KEET, D. F., GERDES, G. H., BARNARD, B. J. H., KRIEK, N. P. J., JARDINE, J., and SWANEPOEL, R. (1995). An outbreak of encephalomyocarditis-virus infection in free-ranging African elephants in the Kruger National Park. Onderstepoort Journal of Veterinary Research, 62(2):97-108.
- 3612 EoaC GROMADZKA-OSTROWSKA, J., JAKUBOW, K., ZALEWSKA, B., and KRZYWICKI, Z. (1988). Haematological and blood biochemical studies in female domesticated Indian elephants, *Elephas maximus*. Comparative Biochemistry & Physiology, 89(3):313-315.
- 3613 +fiB GRÖNING, Karl. and SALLER, Martin. (1999). Elephants: a cultural and natural history. Könemann Verlagsgesellschaft, Cologne, 482 pp. **Annotation:** General view of elephant biology and conservation on worldwide basis. Wealth of photographs of wild and captive elephants, artifacts depicting elephants and made from ivory. Contains information of living and extinct, and factual errors, but worth having just for the pictures [MPK]. Originally in German, English translation, 1999. An immense "coffee-table" book, quite eclectic! The senior author's greatest claim to fame appears to be as a designer of book dust jackets, and the second author is a journalist [RIO].
- 3614 EdrC GROSS, M. E., CLIFFORD, Charlotte A., and HARDY, Douglas A. (1994). Excitement in an elephant after intravenous administration of atropine. Journal of The American Veterinary Medical Association, 205(10):1437-1438. **Annotation:** A 28-year-old 3,400-kg Asian elephant ["Tuffie" ("Kathy")] was anesthetized at Dickerson Park Zoo to remove a dead calf. Atropine was administered approximately 90 minutes after azaperone. Within 1 minute after atropine injection, the elephant swayed, kicked, and moved agitatedly. When the behavior had not abated 30 minutes later, azaperone was again administered, and within 15 minutes, it responded to commands. After removal of 95-kg dead calf and 6 hours after induction of anesthesia, the elephant's condition deteriorated rapidly and it was euthanized" [E/ECM, p. 1437].
- 3615 LroB GROSS, Timothy S., PATTON, Marilyn, ARMSTRONG, Douglas L., and SIMMONS, Lee G. (1991). Estrus detection and synchronization in African elephants (*Loxodonta africana*): Vaginal cytology and serum endocrine profiles [Abstract]. Biology of Reproduction, 44(Supplement 1):60.
- 3616 LvjW GROVES, Colin P. (2000). What are the elephants of West Africa? Elephant, 2(4):7-8.
- 3617 LvjW GROVES, Colin P. and GRUBB, Peter. (2000). Are there pygmy elephants? Elephant, 2(4):8-10.
- 3618 LrvW GROVES, Colin P. and GRUBB, Peter. (2000). Do *Loxodonta cyclotis* and *L. africana* interbreed? Elephant, 2(4):4-7.
- 3619 LvaB GROVES, Colin, GRUBB, Peter, and BRICKNELL, Samantha. (1993). Taxonomy of African elephants. Abstracts, Sixth International Theriological Congress, Sydney, Australia, 4-10 July 1993, p. 120. **Annotation:** Morphological data, concludes *Loxodonta* complex composed of two species, bush African elephant (*Loxodonta africana*), forest African elephant (*Loxodonta cyclotis*) [JS].
- 3620 LvjB GRUBB, Peter, GROVES, Colin P., DUDLEY, Joseph P., and SHOSHANI, Jeheskel. (2000). Living African elephants belong to two species: *Loxodonta africana* (Blumenbach, 1797) and *Loxodonta cyclotis* (Matschie, 1900). Elephant, 2(4):1-4.
- 3621 \*daU GRUEN, Rainer and LISTER, Adrian M. (1993). Collection of ESR samples from the interior of mammoth teeth causing minimal damage. Ancient TL, 11:45-46.
- 3622 BjwW GRUNWALD, Lisa. (1999). Awwwww...Awwwww... All Animals [Humane Society of the United States], Spring:2-5. **Annotation:** From the pages of Life, reporting by Anne Hollister and Stacey Bernstein. Beautiful pictures of baby elephants. After 31 years of watching elephants, Cynthia Moss is still touched by the behavior of the youngest ones, particularly when they are learning to use their trunks [E/ECM].
- 3623 \*wvU GUAN, Jian. (1988). The Miocene strata and mammals from Tongxin, Ningxia and Guanghe, Gansu. Memoirs of Beijing Natural History Museum, 42:1-21.
- 3624 \*vaU GUAN, Jian. (1991). The character analysis and phylogeny discussion on the shovel tusk mastodonts. Memoirs of Beijing Natural History

- Museum, 50:1-21.
- 3625 \*avU GUAN, Jian. (1996). On the shovel-tusked elephantoids from China. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 124-135. Oxford University Press, 472 pp.
- 3626 \*vjU GUAN, Jian and RICE, Judy. (1990). The dragon bones of Tongxin. Natural History, September, 1990:60-67.
- 3627 \*hmU GUAN, Jian and SONG, Rufen. (1991). A remark on statistical analysis on shovel-tusk mastodonts. 60th anniversary essays for discovery of the first Peking man's skull. Beijing Science and Technology Press, pp. 144-151.
- 3628 \*wvU GUAN, Jian and ZHANG, Xing. (1993). The middle Miocene lithic and mammalian records from Ningxia and Lonzhong basins, northwestern China. Memoirs of Beijing Natural History Museum, 53:229-43 [in English and Chinese].
- 3629 \*gvU GUAN, Jian and ZHANG, Xing. (1993). The middle Miocene mammals from Guanghe and Hezheng in northwestern China. Memoirs of Beijing Natural History Museum, 53:243-51 [in English].
- 3630 \*gvU GUENTHER, E. W. (1987). Mammute und ihre Kümmerformen von Eurasien bis Mexiko. Quartär, 38:13-51.
- 3631 LicW GUILLET, Alfredo. (1990). Ivory smuggling in Sudan. Swara, 13(1):31-33. **Annotation:** Attention on ivory trade ban, argues national, international efforts needed against gangs of raiders in Sudan [SLS]. Situation regarding poaching of elephants, associated smuggling of tusks from east and central Africa via Sudan circa late 1980s [ID-H/M&DR].
- 3632 EoaW GUNASEKERA, Maya B., VANDEBONA, Himesha, GOONESEKERE, Nalin C. W., and RATNAOORIYA, W. D. (1998). DNA fingerprinting of elephants. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), pp. 13-14. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 3633 LroB GUNASENA, K. T., LAKEY, J. R. T., VILLINES, P. M., BUSH, M., RAATH, C., CRITSER, E. S., MCGANN, L. E., and CRITSER, J. K. (1998). Antral follicles develop in xenografted cryopreserved African elephant (*Loxodonta africana*) ovarian tissue. Animal Reproduction Science, 53(1/4):265-275.
- 3634 LicW GUP, Ted. (1989). Reprieve for the giant of beasts. Time, 134(18):77.
- 3635 LcuW GUP, Ted. (1989). Trail of shame. Time (October 16), 134(16):66-73. **Annotation:** Coincides with 1989 CITES meeting which took deciding vote to ban international sale of ivory; notes problems associated with smuggling of illegal ivory and poaching of elephants throughout many range states of Africa [ID-H/M&DR].
- 3636 LeuW GUP, Ted. (1994). Giant on earth. International Wildlife, 24(1):44-51. **Annotation:** African elephant is the symbol of all things wild and focal point of the conservation dilemma [E/PFH].
- 3637 BapB GUSSGEN, B[atrix]. (1988). Comparative surgical anatomy of the Indian and African elephants, based on a review of the literature. Inaugural-Dissertation, Tierärztliche Hochschule, Hannover, German Federal Republic, 276 pp.
- 3638 BagB GUSSGEN, Beatrix. (1988). Vergleichende Zusammenstellung der Literaturbefunde über die Anatomie des Indischen und Afrikanischen Elefanten als Grundlage für Tierärztliches Handeln. Dr. Med. Vet. Diss., Tierärztliche Hochschule, Hannover:137-139.
- 3639 \*hwU GUTHRIE, R. Dale. (1990). Frozen fauna of the mammoth steppe: the story of Blue Babe. University of Chicago Press, 323 pp. **Annotation:** A 36,000 year-old mummified bison was discovered in an Alaskan gold mine in 1979. Fascinating, informative, pages 1-34 cover frozen mammoth mummies; includes many typographical errors, e.g., proboscidean spelled three different ways (pp. 2, 15); on p. 112, the word "mandible" should be "dentary" [E/ECM; MPK].
- 3640 \*vwU GUTHRIE, R. Dale. (1990). Late Pleistocene faunal revolution—a new perspective on the extinction debate. In Megafauna and man: discovery of America's heartland (ed. L. D. Agenbroad, J. I. Mead, and L. W. Nelson), pp. 42-53. The Mammoth Site of Hot Springs, South Dakota, Inc., Hot Springs, Scientific Papers, Volume 1, 149 pp.
- 3641 \*vwU GUTHRIE, R. Dale and GUTHRIE, M. L. (1990). On the mammoth's dusty trail. Natural History, July:34-41.
- 3642 LwcW GUY, P. R. (1989). The influence of elephants and fire on a *Brachystegia-Julbernardia* woodland in Zimbabwe. Journal of Tropical Ecology, 5(2):215-226. **Annotation:** *Brachystegia-Julbernardia* woodlands inside and outside SWRA show major differences in structure, biomass and species composition. Woodlands inside which are affected by both elephants and fire have lower stem area, tree density and biomass than that outside which is affected mainly by fire. It is postulated that, by maintaining elephant population at about 250 animals, vegetation in the Reserve is recovering to its former composition [ID-H/M&DR].
- 3643 ByqC GWATHMEY, E. (1993). An enchantment of elephants. Clarkson N. Potter, New York, 80 pp.
- 3644 BnpC HACKENBERGER, Michael K. (1987). Diet digestibilities and ingesta transit times of captive Asian (*Elephas maximus*) & African (*Loxodonta africana*) elephants. MS Thesis, University of Guelph.
- 3645 BqtC HACKENBERGER, Michael K. (1992). Risk assessment. The 13th International Elephant Workshop, Atlanta, 1992, pp. 115-116. Zoo Atlanta, Georgia, 151 pp.
- 3646 EdzC HADLEY, Paul. (1999). Prayers for an elephant. Newsweek, Volume CXXXIV, No. 11 (September 13, 1999): 72-73. **Annotation:** "Thailand's latest land-mine victim stirs emotions and renews concern over the plight of the pachyderms". Include a photograph of "Motala" the 38-year-old elephant harnessed on a tilted "bed" and being prepared for surgery to amputate part of her left foreleg that was damaged from a land mine on the border between Myanmar (formerly Burma) and Thailand [E/JS].
- 3647 \*xvU HAGELBERG, Erika, THOMAS, Mark G., COOK, Charles E., Jr., SHER, Andrei V., BARYSHNIKOV, Gennady, F., and LISTER, Adrian M. (1994). DNA from ancient mammoth bones. Nature, 370:333-334. **Annotation:** Claims that *Mammuthus* is closer to *Loxodonta* than to *Elephas* [JS].
- 3648 \*aoU HAGELBERG, Erika, THOMAS, Mark G., COOK, Charles E., Jr., SHER, Andrei V., BARYSHNIKOV, Gennady, F., and LISTER, Adrian M. (1994). DNA from ancient mammoth bones. Monthly Nature, 2(8):42-43.
- 3649 LbcW HAGOS, Yohannes. (2000). Report on damage caused by elephants to banana plantations in Haykota area, Gash-Barka Zoba, Eritrea. Elephant, 2(4):13-14. **Annotation:** This article and that of Shoshani *et al.* (2000) complement each other. EDITORS' NOTE: In Eritrea, first names, rather than second/last names, are used for citation of authorship. Family names as commonly employed by some nationalities are not used; instead, fathers' first names are employed as second names for sons and daughters [SLS/JS].
- 3650 ErqC HAIGHT, Jay. (1990). Captive management of breeding Asian elephants. Proceedings of the Fourth Elephant Keepers Workshop, Port



- Lympne Zoo Park, United Kingdom, pages 21-28. Published by Port Lympne Zoo Park, Port Lympne, England, 35 pp.
- 3651 ErqC HAIGHT, Jay. (1991). Management of captive breeding Asian elephants. IUCN/SSC Asian Elephant Specialist Group Newsletter, 7:21-27. **Annotation:** Elephant management program at WPZ, as paper at The Fourth Elephant Keepers Workshop in Port Lympne, United Kingdom, 1990 [JLP].
- 3652 \*wvU HAILEAB, B. and BROWN, F. H. (1992). Turkana Basin—Middle Awash Valley correlations and the age of the Sagantole and Hadar Formations. Journal of Human Evolution, 22:453-468.
- 3653 BicB HAJIMITSIS, Anthony. (1994). Ivory for sale. Swara, 17(1):32. **Annotation.** Letter to editor noting ivory openly on sale in Egypt [PFH/JMH].
- 3654 LbcC HALL, Deanne and SHYAN, Melissa R. (1992). Nocturnal behavior & sleep patterns of the captive African elephant (*Loxodonta africana*). The 13th International Elephant Workshop, Atlanta, 1992, pp. 57-58. Zoo Atlanta, Georgia, 151 pp.
- 3655 \*dvU HALL, Don Alan. (1999). Explaining Pleistocene extinctions. Mammoth Trumpet, 14(1):15-21, 23. **Annotation:** Ross MacPhee believes cause of mysterious disappearance of mammoths and other species was disease, possibly virulent viruses killing quickly and crossing species boundaries; argues 'Hyperdisease' came to New World with first humans [E/ECM].
- 3656 LmwW HALL, Jefferson S., INOGWABINI, Bila-Isia, WILLIAMSON, Elizabeth A., OMARI, Ilambu, SIKUBWABO, Claude, and WHITE, Lee J. T. (1997). A survey of elephants (*Loxodonta africana*) in the Kahuzi-Biega National Park lowland sector and adjacent forest in eastern Zaire. Journal of African Ecology, 35(3):213-223.
- 3657 LicW HALLAGAN, John B. (1990). Effects of the regulation of the international ivory trade on African elephant conservation. Transactions of the fifty-fifth North American Wildlife and Natural Resources Conference, pp. 423-433.
- 3658 \*gvU HALLIN, K. F. (1989). Wisconsin's Ice Age tuskers: Ice Age elephants and mastodons. Wisconsin Academy Review, 35(4):6-10.
- 3659 LbrW HALL-MARTIN, Anthony J. (1987). Role of musth in the reproductive strategy of the African elephant (*Loxodonta africana*). South African Journal of Science, 83(10):616-620. **Annotation:** Behavioral, endocrinological data integrated for hypothesis that bulls in musth leave home range, travel far and fast, initiate contacts with distant breeding herds, show aggression overriding normal social male hierarchies, probably mate more often than non-musth bulls, then return to home range. Behavior associated with elevated levels of serum testosterone and dihydrotestosterone. Elephants normally show fidelity to sexually segregated adjoining home ranges, with regular contact between same bulls and cows. This breeding strategy applicable to older, dominant bulls in locally resident hierarchy. Since musth bulls mate far from normal ranges, strategy promotes gene flow and ensures out-breeding [ID-H/M&DR].
- 3660 LchW HALL-MARTIN, Anthony J. (1988). Phelwana. The Rhino & Elephant Journal, 1:22-23. **Annotation:** Death of bull, "Phelwana", as result of gunshot wound, left heaviest tusks yet, part of KNP collection. Left tusk: 54 cm thick at lip, 257 cm long, weighed 63.8 kg. Right tusk: larger, 56 cm thick at lip, 277 cm long, weighed 71.7 kg [ID-H/M&DR].
- 3661 LemW HALL-MARTIN, Anthony J. (1989). Kruger's magnificent seven. American Hunter, Volume not provided:32-36.
- 3662 LicW HALL-MARTIN, Anthony J. (1990). Elephant conservation and management in South Africa. In Regional perspectives and situation regarding elephant conservation and the ivory trade, pp. 89-112. IUCN. **Annotation:** Situation on initiatives for elephant population and conservation in South Africa. Management practices in KNP. Future consideration, present economic requirements enable development, maintenance of conservation programs [ID-H/M&DR].
- 3663 LkcW HALL-MARTIN, Anthony J. (1990). Elephant conservation in the Kruger National Park: from protection to management. In The future of Botswana's elephants (ed. P. Hancock), pp. 49-56. Kalahari Conservation Society, Gaborone. **Annotation:** Management strategy for elephant population with respect to park ecology. Methods of culling, disposal of elephant products and overall ecological monitoring of park are noted [ID-H/M&DR].
- 3664 LcmW HALL-MARTIN, Anthony J. (1991). Adding to Addo. The Rhino & Elephant Journal, 5:18-20. **Annotation:** Program development and acquisition of privately owned land for incorporation into AENP which has a population of 162 elephants. Increase of this park to just over 11,700 hectare should allow for population of approximately 500 elephants [ID-H/M&DR].
- 3665 LicW HALL-MARTIN, Anthony J. (1991). Successors for Kruger's magnificent seven. Custos, 19(11):14-21. **Annotation:** Seven KNP bulls known as magnificent seven, notes presence of other bulls also known to have large tusks or were developing in size [ID-H/M&DR].
- 3666 LcmW HALL-MARTIN, Anthony J. (1992). Distribution and status of the African elephant *Loxodonta africana* in South Africa, 1652-1992. Koedoe, 35(1):65-88. **Annotation:** Reviews historical decline of South African elephants to a low of 120 animals in 1920, and outlines subsequent recovery to what is now over 10,000. Population growth rates of 6.8% and 6.7% per annum are derived from census and estimates for KNP and AENP, respectively. Consequent increase of elephant range and numbers in the next decade to a possible maximum of 31,000 sk kmss and 13,000 animals is envisaged [ID-H/M&DR].
- 3667 LkcW HALL-MARTIN, Anthony J. (1992). The question of culling. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 194-199, 201. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** Increased human and elephant populations throughout range states has led to land use conflict or, if not direct conflict for land, need to manage elephant populations so conflict will not occur. In some areas, poaching stemmed elephant populations but with ivory trade ban, this form of population control no longer significant. Policy of letting nature take its course, TNP in early 1970s, no longer acceptable. At this time, alternatives to culling not realistic or economic in long term, since culling provides economic returns, it can be utilized for conservation and protected area programs [ID-H/M&DR]. See Reference no. 4868 [MPK].
- 3668 LcwW HALL-MARTIN, Anthony J. (1993). Addo: Verhall van redding en herlewing [=Addo: the story of saving and revival]. Custos (August):17-18 [in Afrikaans]. **Annotation:** Conservation, South Africa [MPK].
- 3669 LbcW HALL-MARTIN, Anthony J. (1993). A day in the life of an African elephant. Halfway House, South Africa, Southern Book Publishers (Pty) Ltd, 138 pp.
- 3670 LjbW HALL-MARTIN, Anthony J. (1994). The elephants of southern Africa. (2nd edition). Struik, Cape Town, 24 pp. [First edition (1988) by the same publisher.] **Annotation:** Largely photographic account with sections on physical characteristics, habitat, life in the herd, feeding and watering, temperature control, elephants and their environment, interrelations, influence of man, research, notable bulls [MPK].

- 3671 LmiW HALL-MARTIN, Anthony J. (1994). Death of a legend: Mandleve is no more. The Rhino & Elephant Journal, 9:27-30. **Annotation:** Reviews what was known of age and range of one of well known larger tusked elephants in KNP, "Mandleve", which died of natural causes in 1993. Tusks were 73.5 and 69.0 kg [ID-H/M&DR].
- 3672 LcwW HALL-MARTIN, Anthony [J.]. (1995). Conservation of the African elephant in South Africa. Abstracts, The Wildlife Society, Second Annual Conference, Portland, Oregon, USA, September 12-17, 1995, p. 52.
- 3673 UbqC HAMMOND, R. (1989). Elephant attack — my case study. Proceedings of the Annual Elephant Workshop, 10:38-40. **Annotation:** Captivity, attacking human, Tulsa, Oklahoma [MPK].
- 3674 LucW HANCOCK, Peter (ed.). (1990). The future of Botswana's elephants. Proceedings of Kalahari Conservation Society Symposium on Elephants (Gaborone, Botswana, 10 November 1990). ix + 96 pp.
- 3675 BqzC HANNA, Jack and STRAVINSKY, John. (1989). Monkeys on the interstate: and other animal tales from America's favorite zookeeper. Doubleday, New York, 293 pp. **Annotation:** Animal experiences of Columbus Zoo Director (Columbus, Ohio, USA). Mentions Asian male elephants "Sobik" and "Koko", false pregnancy of female "Bomba". Photos of African elephants "Boomer" and "Belle". Many photos. No index. Elephants on pp. 41-5, 54, 126, 132-3, 189-94 [ERD].
- 3676 \*uvU HANNUS, L. A. (1990). The Lange-Ferguson site: a case for mammoth bone-butcher tools. In Megafauna and man: the discovery of America's heartland (ed. L. D. Agenbroad, J. I. Mead, and L. W. Nelson), pp. 86-99. The Mammoth Site of Hot Springs, South Dakota, Inc., Hot Springs, Scientific Papers, Volume 1, 149 pp.
- 3677 \*avU HANSEN, M. C. (1990). The Johnstown mastodon. Ohio Geology, Winter, 1990:4-5.
- 3678 \*awU HANSEN, M. C. (1990). Mastodon skeleton discovered in Licking County. Ohio Geology, Winter, 1990:1, 3-4.
- 3679 \*awU HANSEN, M. C. (1992). Bestiary of Pleistocene vertebrates of Ohio. Ohio Geology, Winter, 1992:1, 3-6.
- 3680 LswW HANSKI, I. and CAMBEFORT, Y. (eds). (1991). Dung beetle ecology. Princeton University Press, Princeton, New Jersey, 516 pp.
- 3681 LgjW HAPPOLD, D. C. D. (1987). Elephants. In The mammals of Nigeria, pp. 188-192. Clarendon Press, Oxford, xvii + 402 pp.
- 3682 LbcW HAPPOLD, D. C. D. (1995). The interactions between humans and mammals in Africa in relation to conservation: a review. Biodiversity and Conservation, 4:395-414.
- 3683 \*awU HARRINGTON, C. R., GRANT, D. R., and MOTT, R. J. (1993). The Hillsborough, New Brunswick, mastodon and comments on other Pleistocene mastodon fossils from Nova Scotia. Canadian Journal of Earth Science, 30:1242-53.
- 3684 LiuW HARLAND, David J. (1990). Jumping on the "ban" wagon: efforts to save the African elephant. The Fletcher Forum, 284-300. **Annotation:** Reviews, from legal and regulatory viewpoint, status of African elephants vis a vis results of seventh meeting of CITES as related to protection of the species and banning of international sale of raw ivory. Suggests that placing of the species on Appendix I was an ambiguous achievement and does not offer long term solution [ID-H/M&DR].
- 3685 LuiW HARLAND, David J. (1994). The killing game: international law and the African elephant. Praeger, Westport (Connecticut), xiv + 291 pp.
- 3686 BiyB HARRIS, Godfrey. (1991). The fascination of ivory: its place in our world. The Americas Group, Los Angeles, 128 pp. **Annotation:** Ivory used in wide variety of religious, decorative, and functional articles. What impelled the development of so many natural and synthetic substitutes? [E/ECM].
- 3687 \*wvU HARRIS, John M. (1987). Summary. In Laetoli—a Pliocene site in northern Tanzania (ed. M. D. Leakey and J. M. Harris), pp. 524-532, Clarendon, Oxford.
- 3688 LnoW HARRIS, J. M. and CERLING, T. E. (1996). Isotopic changes in the diet of African proboscideans. Journal of Vertebrate Paleontology, Abstracts of Papers, Volume 16, Supplement to Number 3:40A.
- 3689 LgwW HARRISON, Kit and HARRISON, George. (1988). Kenya: the ultimate safari. Supplement to March issue of Audubon, pp. 42-44, 48-50. **Annotation:** Visit to MMGR [JLP].
- 3690 \*vaU HARRISON, Terry (ed.). (1997). Neogene paleontology of the Manonga Valley, Tanzania. A window into the evolutionary history of East Africa. Plenum Press, New York, 418 pp. **Annotation:** Mammalian studies include descriptions and analyses of fossil suids, hippopotamids, ruminants, perissodactyls, proboscideans, rodents [E/ECM].
- 3691 \*vwU HARRISON, Terry and VERNIERS, Jacques. (1993). Preliminary study of the stratigraphy and mammalian palaeontology of Neogene sites in the Manonga Valley, northern Tanzania. Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen, 190(1):57-74.
- 3692 LmuW HART, John A. and HALL, Jefferson S. (1996). Status of eastern Zaire's forest parks and reserves. Conservation Biology, 10(2):316-324. **Annotation:** Ground surveys in protected areas, MaiNP and KBNP and Okapi Wildlife Reserve, in forest region of Zaire. Analysis of dung count, decay rates basis of estimating elephant populations. Population densities for MaiNP, KBNP, including extension area, and for Okapi are 0.68, 0.24 and 0.61 per sq km; population estimates for Parks are 5,500-7,500, 1,350-3,600 and 4,750-10,000, respectively. Elephant densities higher in remote core areas than in adjoining boundary areas and hinterlands in all three protected areas. In both MaiNP and Okapi, elephants now occupy areas where they had not been for over a decade. Unclear how much range expansion due to population growth, how much is reoccupation of traditionally used areas by herds that survived poaching. In KBNP, poaching did not stop with the ban. Appears to have resumed in Okapi Reserve, possibly in MaiNP since 1994 [ID-H/M&DR].
- 3693 LemW HART, John A. and SIKUBWABO, Claude. (1993). Exploration of the Maiko National Park of Zaire 1989-1992: history, environment and the distribution and status of large mammals. Centre de Formation et de Recherche en Conservation Forestiere, Epulu. **Annotation:** MaiNP, created in 1970 with area of 10,800 sq kms, is in center of one of largest, most remote rain forests in Zaire. Elephants widely distributed through Park, surrounding area. Densities estimated from dung counts range from 0.39 per sq km in quadrates outside Park to 0.90 per sq km inside. Total population in Park estimated between 6,000 and 7,000 [ID-H/M&DR].
- 3694 LgwW HART, John A. and SIKUBWABO, Claude. (1994). Exploration of the Maiko National Park of Zaire 1989-1992: history, environment and the distribution and status of large mammals. The Wildlife Conservation Society, New York, pp. 34-41 (Working Paper no. 2).
- 3695 \*uvU HARTUNG, Wolfgang. (1990). Der eemzeitliche Waldelefanten-schlachtplatz von Gröbern, Krs. Gräfenhainichen; DDR. Cranium, 7(2):64-67. **Annotation:** Killing site of straight-tusked elephant. Skull, some limb bones and artefacts were found *in situ* in lignite mine of Pleistocene age [E/ECM].

- 3696 UcwW HASLER, Richard. (1994). Cultural perceptions and conflicting rights to wildlife in the Zambezi Valley. In Elephants and whales resources for whom? (ed. Freeman Milton, R. and Urs P. Kreuter), pp. 85-97. Gordon and Breach, Basel, 321 + xiii pp.
- 3697 LapU HATTINGH, J., KNOX, Caroline M., and RAATH, Jacobus P. (1994). Arterial blood pressure of the African elephant (*Loxodonta africana*) under etorphine anaesthesia and after remobilisation with diprenorphine. The Veterinary Record, 135(19):458-459.
- 3698 LopW HATTINGH, J., KNOX, C. M., RAATH, J. P., and KEET, D. F. (1994). Arterial blood pressure in anaesthetized African elephants. South African Journal of Wildlife Research, 24(1/2):15-17. **Annotation:** Abstract in "Bushcraft", 1(1):16 - 'It is imperative that all... game capturers read [this] paper' [MPK].
- 3699 LopW HATTINGH, J., PITTS, N. I., DE VOS, V., MOYES, D. G., and GANHAO, Maria F. (1991). The response of animals to suxamethonium (succinylcholine) and succinylmonocholine. Journal of the South African Veterinary Association, 62(3):126-129.
- 3700 LopU HATTINGH, J., PITTS, N. I., GANHAO, Maria F., and DE VOS, Valerius. (1990). The responses of elephant and buffalo to succinylmonocholine [Abstract]. South African Journal of Science, 86(11):546.
- 3701 LopW HATTINGH, J., PITTS, N. I., GANHAO, Maria F., MOYES, D. G., and DE VOS, Valerius. (1990). Blood constituent responses of animals culled with succinylcholine and hexamethonium. Journal of the South African Veterinary Association, 61(3):117-118.
- 3702 EcqC HAUCK, Richard. (1996). The Center for Elephant Conservation. Journal of the Elephant Managers Association, 7(1):35-36. **Annotation:** Ringling Brothers Barnum and Bailey has designed and built a \$5 million facility dedicated to conservation, breeding and study of Asian elephant [E/ECM].
- 3703 \*hvU HAUF, Jörg, JOGER, Ulrich, ZIMMERMANN, F. K., LAZAREV, P., and VARTANYAN, S. L. (1999). Protein and nucleic acid sequences of woolly mammoth cytochrome *b* and the phylogenetic position of *Mammuthus* within the Elephantidae. Deinsea, 6:211-217. **Annotation:** See Reference no. 3720 for details about "Deinsea 6". Figure 3, page 216, depicts *Mammuthus primigenius* as a sister taxon to *Elephas maximus*; *Loxodonta africana* joins this clade; cf. Reference nos. 5156, 5753 [ECM/JS].
- 3704 \*oaU HAUF, J., BAUR, A., CHALWATZIS, N., JOGER, U., ZIMMERMANN, F. K., and LAZAREV, P. A. (1995). Selective amplification of a mammoth mitochondrial cytochrome *b* fragment using an elephant-specific primer. Current Genetics, 27:486-487.
- 3705 \*vhU HAYNES, C. V. (1991). Geoarchaeological and paleohydrological evidence for a Clovis-age drought in North America and its bearing on extinction. Quaternary Research, 35:438-450.
- 3706 LeuW HAYNES, Gary. (1987). Elephant-butcherer at modern mass-kill sites in Africa. Current Research in the Pleistocene, 4:75-77.
- 3707 \*lvU HAYNES, Gary. (1987). Proboscidean die-offs and die-outs: age profiles in fossil collections. Journal of Archaeological Science, 14(6):659-668.
- 3708 LeIW HAYNES, Gary. (1988). Longitudinal studies of African elephant death and bone deposits. Journal of Archaeological Science, 15:131-157.
- 3709 LeuW HAYNES, Gary. (1988). Mass deaths and serial predation: comparative taphonomic studies of modern large mammal death sites. Journal of Archaeological Sciences, 15:219-235.
- 3710 +elB HAYNES, Gary. (1988). Studies of elephant death and die-offs: potential applications in understanding mammoth bone assemblages. In Recent developments in environmental analysis in Old and New World archaeology (ed. E. Webb), pp. 151-169. BAR International Series no. 416, Oxford.
- 3711 \*uvU HAYNES, Gary. (1989). Late Pleistocene mammoth utilization in northern Eurasia and North America. Archaeozoologia, 3(1/2):81-107.
- 3712 LajW HAYNES, Gary. (1989). When the mountains fall down: African elephants and bone accumulations in the wild. Abstracts of Papers and Posters Fifth International Theriological Congress, Rome, 22-29 August 1989, Volume I:147.
- 3713 \*vhU HAYNES, Gary. (1990). The mountains that fell down: life and death of heartland mammoths. In Megafauna and man: discovery of America's heartland (ed. L. D. Agenbroad, J. I. Mead, and L. W. Nelson), pp. 22-31. The Mammoth Site of Hot Springs, South Dakota, Inc., Hot Springs, Scientific Papers, Volume 1, 149 pp.
- 3714 +leB HAYNES, Gary. (1991). Mammoths, mastodonts, and elephants: biology, behavior, and the fossil record. Cambridge University Press. New York, 413 pp. **Annotation:** Examines ecology, behavior of modern elephants to create models for reconstructing the lives and deaths of extinct mammoths and mastodons [JS]. Much data on present African elephant and its natural mortality based on work in HNP where large scale die-offs of animals under drought conditions in Kalahari Sands region of the park provide conditions for extensive bone accumulation which can be utilized in comparative taphonomy [ID-H/M&DR]. Reviewed in "Journal of Mammalogy", 75(1):234-236 [ECM].
- 3715 \*hvU HAYNES, Gary. (1999). Mammoths and the mammoth fauna: concluding remarks. Deinsea, 6:219-220. **Annotation:** See Reference no. 3720 for details about "Deinsea 6" [ECM/JS].
- 3716 \*ujU HAYNES, Gary. (1999). How to kill a mammoth: the brutal art of the hunt — and an alternative. Discovering Archaeology, 1(5):42.
- 3717 \*hvU HAYNES, Gary. (1999). The role of mammoths in rapid Clovis dispersal. Deinsea, 6:9-38. **Annotation:** See Reference no. 3720 for details about "Deinsea 6" [ECM/JS].
- 3718 \*uvU HAYNES, Gary and EISELT, S. (1999). The power of Pleistocene hunter-gatherers: forward and backward searching for the evidence about mammoth extinction. In Extinctions in near time: causes, contexts, and consequences (ed. R. D. E. MacPhee), pp. 71-93. Kluwer Academic/Plenum Publishers, New York, xv + 394 pp.
- 3719 \*evU HAYNES, Gary and KLIMOWICZ, J. (1999). Mammoth and mastodont bonesites: what do the differences mean? Official Conference Papers, Volume of Abstracts, Excursion Guide, 2nd International Mammoth Conference: 200 Years of Mammoth Research, May 16-20, 1999, Natuurmuseum Rotterdam, The Netherlands, p. 26 [paper was presented orally at conference].
- 3720 \*evU HAYNES, Gary, KLIMOWICZ, Janis, and REUMER, Jelle W. F. (eds). (1999). Mammoths and the mammoth fauna: studies of an extinct ecosystem. Proceedings of the First International Mammoth Conference, St. Petersburg, Russia, October 16-21, 1995. Deinsea 6 (annual of the Natural History Museum, Rotterdam):1-222. **Annotation:** This special issue of Deinsea is an important volume with contributions by eminent scientists on mammoths and extinct ecosystems. The cover is adorned with a color illustration of a woolly mammoth, *Mammuthus primigenius*, by Kennis & Kennis; graphic design: Jaap van Leeuwen. "Just like dinosaurs, mammoths are extinct, large, almost mythical creatures of the past. And they are right in the center of studies by many paleontologists. ... The publica-

- tion of this volume means a stimulus for scientists and interested laymen alike. The bottom line is that mammoths were part of an intricate ecosystem. Their extinction under the very eyes of mankind holds important clues to our future" (from inside front flap of dust cover). Individual articles are cited in this bibliography [JS/ECM].
- 3721 BihW HAYWARD, L. G. (1990). The origin of the raw elephant ivory used in Greece and the Aegean during the late Bronze Age. *Antiquity*, 64(242):103-109.
- 3722 \*vhU HAZEN, Robert M. (1991). Phenomena, comment and notes. *Smithsonian*, 22(7):28-31. **Annotation:** "Albert Koch could find fossils as well as any man alive, but he got a little carried away when he assembled them." Includes extinct proboscideans such as *Missourium* (=Mammut, the American mastodon) [E/ECM].
- 3723 BnqC HEARD, Darryl J. (1988). Nutritional disorders of neonatal and juvenile elephants. In *Proceedings of the Ninth Annual Elephant Workshop*, held in Jacksonville, Florida, December 7-10, 1988, pp. 128-132. Jacksonville Zoological Park, Florida, 145 pp.
- 3724 LdpU HEARD, Darryl J., KOLLIAS, George V., MERRITT, A. M., and JACOBSON, Elliott R. (1988). Idiopathic chronic diarrhea and malabsorption in a juvenile African elephant (*Loxodonta africana africana*). *Journal of Zoo and Wildlife Medicine*, 19(3):132-136.
- 3725 LopC HEARD, D. J., KOLLIAS, G. V., WEBB, A. I., JACOBSON, E. R., and BROCK, K. A. (1988). Use of halothane to maintain anesthesia induced with etorphine in juvenile African elephants. *Journal of the American Veterinary Medical Association*, 193:254-256.
- 3726 BgjB HEATWOLE, Alan M. (1991). *The world of nature: elephants*. Gallery Books, New York, 64 unnumbered pp. **Annotation:** Little text; color photographs obtained through agencies. Elephants in "Sumatran forest" on p. 54 [JS].
- 3727 BqdC HEGEL, G. v., HÄNICHEN, T., MAHNEL, H., and WIESNER, H. (1989). Warts papilloma/sarcoid in two elephants. In *Erkrankungen der Zootiere*, pp. 205-210. Verhandlungsbericht des XXXI. Internationalen Symposiums über die Erkrankungen der Zootiere. [East] Berlin, German Democratic Republic: Akademie-Verlag.
- 3728 LroC HEISTERMANN, M., TROHORSCH, B., and HODGES, J. K. (1997). Assessment of ovarian function in the African elephant (*Loxodonta africana*) by measurement of 5 $\alpha$ -reduced progesterone metabolites in serum and urine. *Zoo Biology*, 16:273-284.
- 3729 LrpW HEISTERMANN, M., VAN AARDE, R. J., and HODGES, J. K. (1993). Progesterin biosynthesis by the African elephant corpus luteum. *Journal of Reproduction and Fertility*, Abstract Series 11:11 (abstract no. 12) [papers of Society for the Study of Fertility, Annual Conference, Cambridge, July, 1993].
- 3730 LrpW HEISTERMANN, M., BEARD, A., VAN AARDE, R. J., and HODGES, J. K. (1994). Progesterone and 5 $\alpha$ -dihydroprogesterone concentrations in plasma and individual corpora lutea of non-pregnant and pregnant African elephants. *Journal of Reproduction and Fertility*, Abstract Series 13:11-12. (abstract no. 28) [papers of Society for the study of Fertility, Annual Conference, Southampton, July, 1994].
- 3731 LicW HELBOK, M. (compiler). (1988). Elephant watch: the battle to save the elephant rages on several fronts. *Animal Kingdom*, 92(5):22-23.
- 3732 LicW HELBOK, M. (compiler). (1989). Elephant watch: U.S. bans ivory imports, worldwide ban anticipated. *Animal Kingdom*, July/August 1989:18-19.
- 3733 EczC HELFER, Ralph. (1997). *Modoc: the true story of the greatest elephant that ever lived*. HarperCollins Publishers, New York, 325 pp. **Annotation:** Life history of a female Asian circus elephant ("Modoc") which traveled the world with a faithful handler. Based on interviews with elephant people, these events may have happened to several different elephants, not a single one. In one instance, a freighter carrying the circus sank in the Bay of Bengal in the Indian Ocean, and Modoc tread water for days, holding up her handler and other people until another boat saved them all [SLS].
- 3734 EmcW HENDAVITHARANA, W., DISSANAYAKE, S. DE SILVA, M., and SANTIAPILLAI, C. (1994). The survey of elephants in Sri Lanka. *Gajah*, 12:1-30.
- 3735 LejW HENWOOD, R. R. (1995). Construction of elephant bomas. In *Proceedings of a symposium on the African elephant as a game ranch animal*, Berg-en-Dal National Park, 29-30 April 1991 (ed. J. van Heerden and B. L. Penzhorn), pp. 44-47. SAVA Wildlife Group, Onderstepoort.
- 3736 LbcW HERREMANS, Marc. (1995). Effects of woodland modification by African elephant *Loxodonta africana* on bird diversity in northern Botswana. *Ecography*, 18(4):440-454.
- 3737 LecW HESS, Karl, Jr. (1997). Can Africa's elephants be saved? *Reason*, October, 1997:34-41. **Annotation:** Saving elephants, and other endangered wildlife once meant trampled crops, violent death to villagers. Now community based capitalism turns feared pests into sources of wealth — holds lessons for American conservationists [E/ECM, p. 33].
- 3738 EmcW HIBY, A. R. and LOVELL, P. (1991). DUNGSURV — a program for estimating elephant density from dung density without assuming "steady state". In *Censusing elephants in forests: proceedings of an International Workshop* (ed. U. Ramakrishnan, J. A. Santosh, and R. Sukumar), pp. 73-79. Asian Elephant Conservation Centre, Bangalore.
- 3739 LckW HIGGS, Jane. (1993). The elephant men. *Care for the Wild News*, 6:16-17. **Annotation:** Outlines GNP program where family units of elephants were captured and relocated to Save Valley Conservancy, a newly established private reserve, rather than culled during severe drought and apparent overstocking conditions [ID-H/M&DR].
- 3740 BrpC HILDEBRANDT, Thomas B., GORITZ, Frank, PRATT, Nancy C., SCHMITT, Dennis L., LEHNHARDT, John, HERMES, Robert, QUANDT, Sybille, RAATH, Jacobus P., WEST, Gary, and MONTALI, Richard J. (1997). Assessment of health and reproductive status in African and Asian elephants by transrectal ultrasonography. *Journal of the Elephant Managers Association*, 8(3):44-48.
- 3741 BroB HILDEBRANDT, Thomas B., GORITZ, Frank, PRATT, Nancy C., SCHMITT, Dennis L., QUANDT, Sybille, RAATH, Jacobus, HOFMANN, Reinhold R. (1998). Reproductive assessment of male elephants (*Loxodonta africana* and *Elephas maximus*) by ultrasonography. *Journal of Zoo and Wildlife Medicine*, 29(2):114-128.
- 3742 LcwW HILL, Catherine. (1998). Conflicting attitudes towards elephants around the Budongo Forest Reserve, Uganda. *Environmental Conservation*, 25(3):244-250.
- 3743 LojW HILL, F. W. G. and SMITH, D. A. (1990). Clinical chemistry values for free-ranging elephants (*Loxodonta africana*) in Hwange National Park, Zimbabwe. *Zimbabwe Veterinary Journal*, 21(1):33-42.
- 3744 LicW HILL, Kevin A. (1995). Conflicts over development and environmental values: the international ivory trade in Zimbabwe's historical context. *Environment and History*, 1:335-349.

- 3745 LcjW HILL, Kevin D. (1990). The convention on International Trade in Endangered Species: fifteen years later [case study B: the African elephant]. Loyola Los Angeles International Comparative Law Journal, 13(2):256-264.
- 3746 LncW HIRJI, Karim N. (1989). A survey of wildlife populations in Tanzania and their potential for research. In The biology of large African mammals in their environment (ed. P. A. Jewell and G. M. O. Maloiy), pp. 253-265. Proceedings of a symposium held at the Zoological Society of London 19-20 May 1988.
- 3747 LejW HOARE, R. E. (1989). An evaluation of satellite radiotracking of wildlife with reference to its proposed use in a study of the African elephant (*Loxodonta africana africana*), Msc, University of Reading. **Annotation:** Advantages of using commercially available satellite radio tracking system (ARGOS) for monitoring elephant movements in contrast to using VHF radio monitoring. Components of system described including animal radio collars, satellite, ground stations and data delivery with applications to tracking various wildlife species usually at higher latitudes. Comprehensive study of elephants in Laikipia district in Kenya proposed, with satellite tracking. Estimated that NOAA 10 and 11 satellites would give 3 and 4 locations per day, considered adequate coverage. Data to be collected intermittently with planned ground activities [ID-H/M&DR].
- 3748 LekW HOARE, Richard E. (ed.). (1992). Fencing as a management tool in Zimbabwe's wildlife programmes. Proceedings of a seminar, DNPWLM, Harare. **Annotation:** Fide Taylor 1993:10: Following completion of electric-fencing, crop raiding incidents [by elephants] fell by 62% [MPK].
- 3749 LekW HOARE, Richard E. (1992). Present and future use of fencing in the management of larger African mammals. Environmental Conservation, 19(2):160-164.
- 3750 LcwW HOARE, Richard E. (1993). Wildlife fencing as a management tool for protected areas in Africa [Les clotures un outil de gestion pour les aires protegees en Afrique]. Nature et Faune, 9(2):34-43.
- 3751 LckW HOARE, Richard E. (1995). Options for the control of elephants in conflict with people. Pachyderm, 19:54-63. **Annotation:** Increasing elephant population in decreasing range situation in Zimbabwe, increasing amount of management taking place outside protected areas. Elephants are of considerable economic value at same time they are pest species. Focuses on approach to dealing with problem as a whole [ID-H/M&DR].
- 3752 LmwW HOARE, Richard E. (1998). Human-elephant interactions at the ecosystem level [Abstract]. Pachyderm, 25:41-42 [in English and French]. **Annotation:** Savanna elephant populations in Sebungwe region northwest Zimbabwe studied over large range. Abundance, spatial organization and social ecology of elephants compared between populations resident in areas protected for wildlife and communal lands with human populations [E/ECM].
- 3753 LwcW HOARE, Richard E. and DU TOIT, Johan T. (1999). Coexistence between people and elephants in African savannas. Conservation Biology, 13(3):633-639. **Annotation:** Zimbabwe study. Elephant, human coexistence occurs at various levels of human density, up to threshold when elephant populations disappear [E/JS, abstract].
- 3754 LcjW HOBBS, Guy. (1993). Out of the wasteland. Living, 8:30-37.
- 3755 LraU HODGES, J. K. (1992). Endocrinology of the ovarian cycle and pregnancy [Paper 85]. In Advances in reproductive research in man and animals: Abstracts of the second international NCCR conference held in Nairobi on 3rd-9th May 1992 (ed. Charanjit Singh Bimbra), pp. 59-60. Institute of Primate Research, National Museums of Kenya, Nairobi.
- 3756 BroB HODGES, J. K. (1998). Endocrinology of the ovarian cycle and pregnancy in the Asian (*Elephas maximus*) and African (*Loxodonta africana*) elephant. Animal Reproduction Science, 53(1/4):3-18.
- 3757 BorC HODGES, J. K., MCNEILLY, A. S., and HESS, David L. (1987). Circulating hormones during pregnancy in the Asian and African elephants *Elephas maximus* and *Loxodonta africana*: a diagnostic test based on the measurement of prolactin. International Zoo Yearbook, 26:285-289.
- 3758 LorW HODGES, J. K., VAN AARDE, R. J., and HEISTERMANN, M. H. (1994). Progesterin content and biosynthetic potential of the corpus luteum of the African elephant (*Loxodonta africana*). Journal of Reproduction and Fertility, 102(1):163-168. **Annotation:** Luteal tissues were collected from non pregnant and early, mid and late pregnant animals shot in KNP. Enzymeimmunoassay and radioimmunoassay reveal there were no obvious differences in hormone (progesterone and 17 $\alpha$ -hydroxyprogesterone) concentrations in corpora lutea from animals at different reproductive stages. Progesterone and 17 $\alpha$ -hydroxyprogesterone immunoreactivity assayed before HPLC was 10-30 times higher than that measured after chromatographic separation. Results indicate major progesterin contained within and biosynthesized by corpora lutea of African elephants are 5 $\alpha$ - reduced metabolites, and that progesterone and 17 $\alpha$ -hydroxyprogesterone are quantitatively of minor importance [ID-H/M&DR].
- 3759 LaoB HODGES, J. K., HEISTERMANN, Michael, BEARD, Andrew, and VAN AARDE, Rudi J. (1997). Concentrations of progesterone and the 5 $\alpha$ -reduced progestins, 5 $\alpha$ -pregnane-3, 20-dione and 3 $\alpha$ -hydroxy-5 $\alpha$ -pregnan-20-one, in luteal tissue and circulating blood and their relationship to luteal function in the African elephant, *Loxodonta africana*. Biology of Reproduction, 56(3):640-646.
- 3760 \*haU HOFFECKER, J. F. (1987). Upper Pleistocene loess stratigraphy and Paleolithic site chronology on the Russian Plain. Geoarchaeology, 2(4):259-284. **Annotation:** *Mammuthus*, bones. Fide Haynes, 1991:315 - humans made dwellings from mammoth bones, possibly because wood was in short supply. See Reference no. 1953 [MPK].
- 3761 LckW HOFFMAN, M. T. (1993). Major P. J. Pretorius and the decimation of the Addo elephant herd in 1919-1920: important reassessments. Koedoe, 36(2):23-44. **Annotation:** Between June 1919 and August 1920, Major P. J. Pretorius reduced the largest known population of elephants in South Africa at that time from 130 to 16 animals. Land use conflict between farmers and elephants over dwindling water resources coupled with threat elephants posed to agricultural crops caused provincial administration's extermination order. Very little data on animals killed exist but the '120 odd' figure noted by Pretorius is reasonably accurate. Most of the hides were made into whips. It appears that a handful of individuals banded together and reversed total extermination order which spared 16 animals in an area which became AENP [ID-H/M&DR].
- 3762 LwjW HOFT, Robert and HOFT, Martina. (1995). The differential effects of elephants on rain forest communities in the Shimba Hills, Kenya. Biological Conservation, 73(1):67-79. **Annotation:** Longomagandi Forest of Shimba Hills, logged coastal rainforest. Study assessing

- elephant utilization phytosociological characteristics in forest regrowth areas. Floristic composition and presence of certain fodder plants directed main activity of elephants. Limited recruitment of and heavy damage to plants characteristic of successional stages indicate regeneration of favored parts of forest area impeded [ID-H/M&DR].
- 3763 **LapW** HOLDEN, Constance. (1999). Fetal elephants point to wet beginnings. *Science*, 284(5418):1263. **Annotation:** Researchers found in preserved elephant fetuses, ducts, called nephrostomes, that also appear in fish and frogs. The ducts, which disappear before birth, seem to be present for at least 2 months. Findings are reported in 11 May Proceedings of the National Academy of Sciences; cf. Reference no. 3504 [E/ECM].
- 3764 **LgcW** HOLLOWAY, Marguerite. (1994). Profile: Cynthia Moss. On the trail of wild elephants. *Scientific American*, 271(6):48, 50.
- 3765 **\*weU** HOLMAN, J. A., ABRACZINSKAS, L. M., and WESTJOHN, D. B. (1988). Pleistocene proboscideans and Michigan salt deposits. *National Geographic Research*, 4(1):4-5. **Annotation:** *Mammot americanum*, *Mammuthus jeffersoni*, salt-lick [MPK].
- 3766 **\*wvU** HOLMAN, J. Alan. (1995). *Ancient life of the Great Lakes basin: Precambrian to Pleistocene*. The University of Michigan Press, Ann Arbor, 287 pp. **Annotation:** Ancient life in the Great Lakes. Describes most of common fossils found in region [E/ECM].
- 3767 **LckW** HOLT-BIDDLE, D. (1994). The plight of Africa's elephants. *Africa - Environment & Wildlife*, 2(6):71-79. **Annotation:** Poaching, ivory, tusks, culling, KNP, Kenya, Togo, Japan, Zambia, Zimbabwe, Botswana [MPK].
- 3768 **BaoC** HONEYMAN, Virginia L., PETTIFER, Glenn R., and DYSON, Doris H. (1992). Arterial blood pressure and blood gas values in normal standing and laterally recumbent African (*Loxodonta africana*) and Asian (*Elephas maximus*) elephants. *Journal of Zoo and Wildlife Medicine*, 23(2):205-210.
- 3769 **LbcW** HOPKINS, Prue. (1993). Night viewing. *Swara*, 16(1):15-16. **Annotation.** Tourists use night viewing lodges [ECM].
- 3770 **\*ihU** HORENSTEIN, Sidney. (1989). Big Apple tusks. *Natural History*, March:96, 98, 100.
- 3771 **\*xoU** HÖSS, Matthias, PÄÄBO, Svante, and VERESHCHAGIN, N. K. (1994). Mammoth DNA sequences. *Nature*, 370:333.
- 3772 **\*xoU** HÖSS, Matthias, PÄÄBO, Svante, and VERESHCHAGIN, N. K. (1994). Mammoth DNA sequences. *Monthly Nature*, 1(8):42.
- 3773 **BdqC** HOUCK, R. (1993). Veterinary care of performing elephants. In *Zoo and wild animal medicine* (3rd edition) (ed. M. E. Fowler), pp. 453-454. W. B. Saunders Company, Philadelphia, 617 pp. **Annotation:** Working, digestion, injury, disease. See Reference nos. 1009, 3489, 3985, 4604, 5039 [MPK].
- 3774 **BzgC** HOUSE, Albert. (1993). Circus parade. *Circus Report*, No. 16:3. **Annotation:** Ringling Red unit staged a circus parade (in New York City) from Madison Square Garden to The Museum of Natural History on Wednesday March 31, where the skeleton of "Jumbo" was on display [E/ECM].
- 3775 **EqcC** HOUTS, Lee and NESTALE, David. (1992). The successful relocation of an adult female Asian elephant. *The 13th International Elephant Workshop, Atlanta, 1992*, pp. 31-34. Zoo Atlanta, Georgia, 151 pp.
- 3776 **BqrC** HRONADKA, Jean. (1988). Observations made on an Asian Elephant (*Elephas maximus*) during gestation. In *Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988*, pp. 93-105. Jacksonville Zoological Park, Florida, 145 pp.
- 3777 **EcjW** HTUT, U. Ye. (1995). Management of wild elephants in Myanmar. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 236-241. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3778 **BycC** HUMPHREY, B. (1990). *The last elephant*. Friends of the National Zoo, Washington, D. C., 70 unnumbered pp.
- 3779 **EcwW** HUNT, J. (1987). Bundala elephants. *Loris*, 17(6):248.
- 3780 **BdoB** HUNTER, Pamela, SWANEPOEL, S. P., ESTERHUYSEN, J. J., RAATH, Jacobus P., BENGIS, Roy G., and VANDER LUGT, J. J. (1998). The efficacy of an experimental oil-adjuvanted encephalomyocarditis vaccine in elephants, mice and pigs. *Vaccine*, 16(1):55-61.
- 3781 **LqtC** HUOT, C. and HUOT, M.-D. (1994). Riding high in Garamba. *Africa - Environment & Wildlife*, 2(5):21-26. **Annotation:** Captivity, working, Zaire [MPK].
- 3782 **LwsW** HUSTLER, K. (1987). Host preference of oxpeckers in The Hwange National Park, Zimbabwe. *African Journal of Ecology*, 25(4):241-245. **Annotation:** *Buphagus*, interspecific relations, mutualism. Elephants 'not scored' for this study [MPK].
- 3783 **LicW** HUTTON, J. (1996). Missing the target: for the south, CITES fails wildlife, frustrates communities. *Ecoforum*, 20(1):17-20. **Annotation:** Critical of CITES in respect to economic utilization and trade potential of managed resource use rather than imposed controls. Suggests CITES pitted north against south (Africa) in irrational setting of restrictions, which in the case of elephant, causes undue poverty rather than economic returns. At the end of 1995, Zimbabwe was storing 33 tons of ivory, mainly derived from problem animal control, with estimated value of US \$4 million [ID-H/M&DR].
- 3784 **BicB** HYKLE, D. J. (compiler). (1990). Survey of the ivory trade regulations. *Traffic Bulletin*, 11(4):59-62.
- 3785 **\*iuU** HYMAN, Randall. (1995). Open season on the woolly mammoth. *International Wildlife*, 25(3):16-22. **Annotation:** Ice Age elephant may be long extinct, but hunt for its treasured ivory continues [E/ECM, p. 16].
- 3786 **EdpW** IBRAHIM, M. Ahamed. (1997). Treatment of traumatic myiasis in a wild Indian elephant (*Elephas maximus indicus*). *Animal Keepers' Forum*, 24(9):418.
- 3787 **EceW** IDRIS, S. M. Mohd. (1988). Elephants in Malaysia - Is there a future? *Tigerpaper*, 15(2):14-18. **Annotation:** Population is estimated at between 700 and 900 [MPK].
- 3788 **EmaC** ILANGAKOON, Anouk D. (1993). A preliminary study of the captive elephants in Sri Lanka. *Gajah*, 11:29-42. **Annotation:** Sex and age structure, physical features, especially ears and tails, aggression, food, and work done were compiled on 181 elephants in Kandy, Sri Lanka, in July 1991, for the Perehera [JLP].
- 3789 **LicW** ILSLEY, J. D. (1989). Help! I am an endangered species. *The Rhino & Elephant Journal*, 2:24-25. **Annotation:** Differences between need for economic development and effective wildlife management and utilization in African range states (e.g., South Africa) versus recently proposed CITES regulations [ID-H/M&DR].
- 3790 **LicW** ILSLEY, J. D. (1991). Is there life after Lausanne? *The Rhino & Elephant Journal*, 5:28-29. **Annotation:** Differences between eastern and southern African populations; critically assesses placement of African elephant on Appendix I of CITES in light of need to handle and

- utilize wildlife for economic benefit of range states [ID-H/M&DR].
- 3791 **LcjW** INAMDAR, Amar. (1996). The ecological consequences of elephant depletion. D. Phil Thesis, Cambridge University, 171 pp.
- 3792 **\*vhU** INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE. (1991). *Mammuthus* Brookes, 1828 (Mammalia, Proboscidea): conserved, and *Elephas primigenius* Blumenbach, 1799 designated as the type species. *Bulletin of Zoological Nomenclature*, 48(3):279-280.
- 3793 **UagB** INUZUKA, Norihisa. (1989). A construction of recapitulation theory in the proboscidean skull. *Journal of Fossil Research*, 21(2):40-45 [in Japanese].
- 3794 **+acB** IORIO, Mary E. (1997). To save the elephant. *Cranbrook Journal*, Summer, 1997:2-7. **Annotation:** Encounter with African elephant "Ahmed" in Kenya. Extinction of mammoths and mastodons in North America, attributed to humans. Anatomy and evolution of proboscideans and methods of saving living elephants [ECM].
- 3795 **BvoU** IRWIN, D. M. and WILSON, A. C. (1993). Limitations of molecular methods for establishing the phylogeny of mammals, with special reference to the position of elephants. In *Mammal phylogeny: placentals* (ed. F. S. Szalay, M. J. Novacek, and M. C. McKenna), pp. 257-267. Springer-Verlag, New York, 321 pp.
- 3796 **EewW** ISHWARAN, N. (1993). Ecology of the Asiatic elephant in lowland Dry Zone habitats of the Mahaweli River Basin, Sri Lanka. *Journal of Tropical Ecology*, 9(2):169-182.
- 3797 **EcjW** ISLAM, Mohammad Zahirul and ISLAM, Mohammad Sazedul. (1997). Wildlife status in the evergreen forests between Ramu & Ukhia of Cox's Bazar forest division. *Tigerpaper*, 24(1):9-13. **Annotation:** Asian elephant still present in Upper Rezu, Dariar Dighi and Panerchara block. Herds travel from Arakan Hills of Myanmar to Teknaf Hills. Table of mammals, reptiles, amphibians and current status in forest of Ramu and Ukhia on pp. 12-13 [E/ECM].
- 3798 **LcjW** IUCN. (1990). *Africa's elephants*. IUCN, Gland Switzerland, 15 pp., figs; maps; photos. **Annotation:** Data provided from four papers focusing on regional population status and conservation of elephant populations [ID-H/M&DR].
- 3799 **EcwW** IUCN. (1990). *Directory of South Asian protected areas*. IUCN, Gland Switzerland.
- 3800 **BqtC** IVERSEN, E. (1993). The domestication of the African elephant in the 20th century. *Proceedings of the Elephant Managers' Conference*, 14:55-60. **Annotation:** See Reference nos. 1675, 3253, 3539, 3951, 5209, 5631, 5632 [MPK].
- 3801 **BqtB** IVERSEN, Eve. (1995). The domestication of the African elephant. *Pachyderm*, 20:65-68. **Annotation:** Historical domestication of African elephants, unsuccessful attempts to import Asian elephants, capture and training late 1800s to about 1960. Notes redevelopment of earlier forest elephant domestication in GaNP, attempt to domesticate bush elephants in Okavango Delta (Botswana) with assistance of circus trained animals. Tourism focus of both programs [ID-H/M&DR]. See Reference nos. 1675, 3253, 3539, 3951, 5209, 5631, 5632 [MPK].
- 3802 **LicW** IVORY TRADE REVIEW GROUP. (1989). The ivory trade and the future of the African elephant: summary of the interim report of the Ivory Trade Review Group. *Pachyderm*, 12:32-37. **Annotation:** African elephant declined in numbers by at least 50% during the last 10 years from poaching. Downward trend is related to protection. Only 1.5% of total area occupied by elephants is, at least on paper, protected. Bull elephants are most wanted for ivory, and reproductive rate of females is low due to lack of males for mating. Tonnage of ivory exports from Africa and number of elephants that were shot to achieve this is given [ID-H/M&DR].
- 3803 **BvwB** JABLONSKI, D., ERWIN, D. H., and LIPPS, J. H. (eds). (1996). *Evolutionary Paleobiology*. University of Chicago Press, vii + 484 pp.
- 3804 **LlaW** JACHMANN, Hugo. (1988). Estimating age in African elephants: a revision of Laws' molar evaluation technique. *African Journal of Ecology*, 26(1):51-56. **Annotation:** To check if number of lamellae of each of six molars develop in each quadrant during an elephant's lifetime, 100 intact teeth were extracted from lower jaws collected by KaNP Research Unit. It appears that number of lamellae for each molar may vary with a population as well as between populations. If possible to predict deviation from number of lamellae per molar from some measurements of the tooth, variation within the population could be assessed. In KaNP sample no relation between size of molar and deviating number of lamellae found [ID-H/M&DR].
- 3805 **LwmW** JACHMANN, Hugo. (1988). Numbers, distribution and movements of the Nazinga elephants. *Pachyderm*, 10:16-21. **Annotation:** Elephant occupancy. Suggests direct aerial counts and ground surveys inaccurate due to limited visibility, uneven distribution. Alternative fecal dropping counts used to assess elephant occupancy on NGR [ID-H/M&DR].
- 3806 **LneW** JACHMANN, Hugo. (1989). Food selection by elephants in the 'Miombo' biome in relation to leaf chemistry. *Biochemical Systematics & Ecology*, 17(1):15-24.
- 3807 **LmwW** JACHMANN, Hugo. (1991). Evaluation of four survey methods for estimating elephant densities. *African Journal of Ecology*, 29(3):188-195. **Annotation:** Aerial sample survey, foot survey, vehicle survey, dry and wet season dropping counts used for estimating elephant densities on NGR, evaluated against results of aerial total count. Results of survey techniques, except dry season droppings count method, had low accuracies relative to aerial total count. Concludes droppings count method best and most cost-effective survey technique available for estimation of elephant densities in forested areas [ID-H/M&DR].
- 3808 **LwmW** JACHMANN, Hugo. (1992). Movements of elephants in and around the Nazinga Game Ranch, Burkina Faso. *Journal of African Zoology*, 106(1):27-37. **Annotation:** Elephant movement on NGR, area of tall grass and tree/shrub savanna. During dry and early wet season, December-June, 1989, population concentrated along ranch periphery as they sought permanent water and tried to avoid poachers. In mid to late wet season June-October, 1989, dispersal throughout the 940 sq. km ranch based on data collected from one radio collared male and two females. Through interviews, it was found that movement still occurs between Burkina Faso and northern areas of Ghana and Togo in wet season. Study recommends that protected corridors be established between NGR and Kabore Tambi National Park and the Park can eventually be repopulated [ID-H/M&DR].
- 3809 **LmwW** JACHMANN, Hugo. (1995). Survey experiments and aerial survey of elephants in the South Luangwa National Park and the Lupande Game Management Area, Zambia, 1993. *Pachyderm*, 19:81-86. **Annotation:** Survey methods and data, focuses on observer bias from aerial surveys in 1993. Estimated population of 6,000 elephants occupy South LNP and Lupande Game Management area including Nsefu area along Luangwa River in northwest corner of Upper Lupande section [ID-H/M&DR].
- 3810 **LmwW** JACHMANN, Hugo. (1996). Direct counts of elephants from the ground. In *Studying elephants* (ed. K. Kangwana), pp. 49-56. African

- Wildlife Foundation, Nairobi, Kenya, 178 pp. **Annotation:** Methodology used to estimate elephant populations counting animals by direct observation generally done using transects and line transect methods and accomplished by walking or using vehicle transport. Examples: Lupande Game Management Area in Zambia and NGR [ID-H/M&DR].
- 3811 LucW JACHMANN, Hugo and BILLIOUW, M. (1997). Elephant poaching and law enforcement in the central Luangwa Valley, Zambia. *Journal of Applied Ecology*, 34(1):233-244.
- 3812 LweW JACHMANN, Hugo and CROES, Tamara. (1991). Effects of browsing by elephants on *Combretum*/Terminalia Woodland. *Environmental Conservation*, 18(2):169-171. **Annotation:** Also published in *Biological Conservation*, 57(1). Elephant woodland interactions in West African Terminalia/*Combretum* community at NGR, West Africa. Tree and shrub density greater than 1 meter in height measured. Average density 800 per hectare same when elephant densities remained below 0.6 per sq. km. At higher densities, woody stem density sharply reduced, no further changes in size class distributions of trees and shrubs occurred, but change in species composition apparent with larger proportions of low palatability species. During dry season and early wet season, ranch's 400 elephants occupy slightly over half park area - generally unburned and central portion near permanent water. Above 0.6 animals per sq. km, stems above 1 meter in height remained unchanged, but reduction in number of trees in youngest age classes elephant density increased, woody stem density fell sharply; species composition shifted to more fire resistant and less palatable species [ID-H/M&DR].
- 3813 LiuW JACHMANN, Hugo and DUBLIN, Holly (1991). *The impact of the ivory ban on illegal hunting of elephants in six range states in Africa*. WWF, Gland, Switzerland, Project no. 4578, 116 pp. **Annotation:** Impact of ivory ban on elephant poaching focus on major conservation areas of Zambia, Tanzania, Malawi, Cameroon, Ivory Coast and Zaire. Data on of law enforcement and rates of elephant poaching comparing pre-ban and post-ban periods. Decrease in poaching levels of elephants in 5 of the 6 countries. Biggest drop in Tanzania, Zambia, Zaire, Cameroon and Ivory Coast in descending order. Only Malawi experienced rise in illegal killings. Ivory price decline in the first five countries [ID-H/M&DR].
- 3814 LixW JACHMANN, Hugo, BERRY, P. S. M., and IMAE, H. (1995). Tusklessness in African elephants: a future trend. *African Journal of Ecology*, 33(3):230-235. **Annotation:** In South LNP and adjacent Lupande Game Management Area in Zambia of adult tuskless female elephants grew from 10.5% in 1969 to 38.2% in 1989, apparently direct result of selective illegal ivory hunting. From 1989 to 1993, adult tuskless females declined from 38.2% to 28.7% result of immigration of tusked females from adjacent Game Management Areas. Tusklessness appears to run in families and is sex-linked; cf. annotation to Reference no. 5125 [ID-H/M&DR].
- 3815 LwcW JACHMANN, Hugo, O'DONOGHUE, M., and ROOD, K. (1989). Influence of fire on elephant use of *Combretum*/Terminalia woodland in southern Burkina Faso. *Oikos*, 54(3):310-314. **Annotation:** NGR data on woodland utilization, habitat preference, and elephant distribution show that elephants prefer areas left unburned during dry season. Comparison with other areas in Africa shows that resprouting of vegetation after fire is likely most important factor in determining degree of elephant utilization in areas burned early in dry season. Precise time of burning is crucial to effective elephant management [ID-H/M&DR].
- 3816 LiuW JACKMAN, B. (1989). Killing for white gold. *Geo Special*, 1(2):94-97.
- 3817 BgjB JACKMAN, Brian. (1992). Review of "The illustrated encyclopedia of elephants" consultant editor, S. Keith Eltringham, published 1991 by Salamander Books, London, 188 pp. *Oryx* (April 1993), 26(2):122.
- 3818 LiuW JACKMAN, Brian. (1995). Leakey fury at ivory view. *BBC Wildlife*, 13(8):55-56. **Annotation:** Elephant experts clash over poaching figures [E/ECM].
- 3819 LgjW JACKSON, Peter. (1987). Finding out about elephants. *Swissair Gazette*, 9:20-21.
- 3820 BgcB JACKSON, Peter. (1990). *Endangered species: elephants*. Chartwell Books, Inc., Secaucus, New Jersey, 128 pp. Also The Apple Press, London. **Annotation:** Natural history, conservation [MPK].
- 3821 \*vhU JACOBS, L. L., FLYNN, L. J., DOWNS, W. R., and BARRY, J. C. (1990). *Quo vadis, Antemus?* The Siwalik muroid record. In *European Neogene mammal chronology* (ed. E. H. Lindsay, V. Fahlbusch, and P. Mein), pp. 573-586. Plenum, New York [copyright date, 1989], 658 pp.
- 3822 BqdC JACOBSEN, Elliott R. (1988). Chemical restraint and anesthesia of elephants. In *Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988*, pp. 112-119. Jacksonville Zoological Park, Florida, 145 pp.
- 3823 LopC JACOBSON, Elliott R., HEARD, Darryl J., CALIGIURI, Randolph, and KOLLIAS, George V. (1987). Physiologic effects of etorphine and carfentanil in African elephants. *Proceedings of the American Association of Zoo Veterinarians annual conference, September 6-11, 1987*, pp. 525-527.
- 3824 LobW JACOBSEN, Elliott R., KOLLIAS, George V., HEARD, Darryl J., and CALIGIURI, Randolph. (1988). Immobilization of African elephants with carfentanil and antagonism with nalmefene and diprenorphine. *Journal of Zoo Animal Medicine*, 19(1/2):1-7.
- 3825 \*vwU JAKUBOWSKI, Gwidon. (1996). Forest elephant *Palaeoloxodon antiquus* (Falconer & Cautley, 1847) from Poland. *Prace Muzeum Ziemi*, 43:85-109. **Annotation:** Three almost completely preserved skeletons found in the Upper Pleistocene deposits in Warsaw, in Józwin, near Konin, and in vicinity of Ciechanów, and their systematic position [E/ECM].
- 3826 +vaB JANIS, Christine M. (1988). New ideas in ungulate phylogeny and evolution. *Trends in Ecology & Evolution*, 3(11):291-297. **Annotation:** Page 293, fig 1(b), author presents "new views" that "sirenians", "desmostylians", "*Moeritherium*", and "proboscideans" share aquatic adaptations. Janis' paper cited in Gaeth *et al.*, 1999, article (Reference no. 3504), but their text reads as though "aquatic ancestry" hypothesis was Gaeth *et al.*'s, new idea and not that of Janis, 1988 [JS].
- 3827 BaeB JANIS, Christine M. and MATTHEW, Carrano. (1992). Scaling of reproductive turnover in archosaurs and mammals: why are large terrestrial mammals so rare? *Annales Zoologici Fennici*, 28:201-216.
- 3828 \*vgU JANIS, Christine M., SCOTT, Kathleen M., and JACOBS, Louis L. (eds). (1998). *Evolution of Tertiary mammals of North America, Volume 1: terrestrial carnivores, ungulates, and ungulatelike mammals*. Cambridge University Press, 691 pp. **Annotation:** Compendium and synthesis of cumulative knowledge of more than 100 years of discovery and study of North American Tertiary mammals. Valuable contribution is detailed information of distribution in time and space of each species at fossil localities, in a uniform scheme, so each chapter provides same level of information. Proboscideans in chapters 35, 43 [ECM, back cover].



- 3829 \*vwU JANIS, Christine M., COLBERT, Matthew W., COOMBS, Margery C., LAMBERT, W. David, MACFADDEN, Bruce J., MADER, Bryn J., PROTHERO, Donald R., SCHOCH, Robert M., SHOSHANI, Jeheskel, and WALL, William P. (1998). Perissodactyla and Proboscidea. In Evolution of Tertiary mammals of North America, Volume 1: terrestrial carnivores, ungulates, and ungulatelike mammals (ed. Christine Janis M., Kathleen M. Scott, and Louis L. Jacobs), pp. 511-524. Cambridge University Press, 691 pp. **Annotation:** Figure 35.5 incorporates biogeographic ranges of Tertiary proboscideans [JS].
- 3830 EecW JANSEN, M. and DE ZOYSA, N. (1992). Sri Lanka's biodiversity: a rapidly diminishing resource. Tigerpaper (FAO), 19(4):18-24.
- 3831 EqtC JAYASEKERA, S. (1998). Elephants in forest operations. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), p. 23. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 3832 EodB JAYASEKERA, S. and KURUWITA, V. Y. (1996). Distribution of selected heavy metals in blood of Asian elephant. Gajah, 15:29-31. **Annotation:** Biological impact of increase of heavy metals in environment a major concern. Study investigated occurrence and distribution of cadmium, copper, lead, magnesium and zinc in whole blood of Asian elephant. Attempt made to compare distribution of selected metals between domesticated and free ranging elephants" [E/ECM].
- 3833 EqjW JAYASINGHE, A. (1994). One-way traffic for over crowded wildlife park. Daily News (Sri Lanka), 15 February:33.
- 3834 EmcB JAYASINGHE, W. A. (1993). An elephant census in Sri Lanka. Daily News (Sri Lanka), 23 March:8.
- 3835 EcgW JAYEWARDENE, Jayantha. (1989). Elephant conservation amidst development. Part III. Tigerpaper, 16(2):11-19.
- 3836 EcjW JAYEWARDENE, Jayantha. (1991). The conservation of the Sri Lankan elephant. Proceedings of a Seminar on Environment and Economic Development. Institute of fundamental Studies, Kandy, Sri Lanka, 26-32.
- 3837 EcmW JAYEWARDENE, Jayantha. (1992). Elephant conservation amidst development. Part IV. Tigerpaper, 17(2):16-21.
- 3838 EcmW JAYEWARDENE, Jayantha. (1992). Elephant conservation amidst development. Part V. Tigerpaper, 19(3):7-13.
- 3839 EcmW JAYEWARDENE, Jayantha. (1992). Elephant conservation amidst development. Part VI. Tigerpaper, 20(2):21-39.
- 3840 EcwW JAYEWARDENE, Jayantha. (1993). The elephant: a part of our environment. Sobha, 4(2):14-16.
- 3841 EcjW JAYEWARDENE, Jayantha. (1993). Elephant management and conservation in the Mahaweli project areas. Gajah, 11:6-15. **Annotation:** Plan to conserve elephants in Mahaweli area, Sri Lanka [ECM].
- 3842 EcgW JAYEWARDENE, Jayantha. (1994). Elephant conservation amidst development. Part VII. Tigerpaper, 21(3):23-30.
- 3843 EcjW JAYEWARDENE, Jayantha. (1994). Elephant drives in Sri Lanka. Gajah, 13:30-39.
- 3844 EgjB JAYEWARDENE, Jayantha. (1994). The elephant in Sri Lanka. The Wildlife Heritage Trust, Colombo, Sri Lanka, 128 pp. **Annotation:** Synthesis of the present state of knowledge of Sri Lankan elephant. Tuskless (mukhna), as well as a magnificent tusker, decorate the pages. Differences between males and females are visible (p. 16), such as larger knobs on head and convex profile of back of the male. Glossary, references, index [ECM/JS]. Noted in Tigerpaper, 20(4):30 [1993], and 1995 Species, 23:56; reviewed by J. Eisenberg in "Pachyderm", 19:87 [MPK].
- 3845 EcgW JAYEWARDENE, Jayantha. (1995). Elephant conservation amidst development. Part VIII. Tigerpaper, 22(4):12-17. **Annotation:** Use of electric fences as proposed by Department of Wildlife Conservation to prevent elephant incursions into developed areas, records further events and progress in respect of elephant conservation in Mahaweli [ECM].
- 3846 EcjW JAYEWARDENE, Jayantha. (1995). Elephant conservation problems in Sri Lanka's Mahaweli River basin. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 185-196. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3847 EcjW JAYEWARDENE, Jayantha. (1995). An overview of elephant conservation in Sri Lanka. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 217-224. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3848 EcgW JAYEWARDENE, Jayantha. (1996). The Asian elephant in Australia. Gajah, 15:33-35. **Annotation:** Investigations regarding Asian elephant and its history in zoos and circuses of Australia [ECM].
- 3849 EcgW JAYEWARDENE, Jayantha. (1997). Elephant conservation amidst development-Part IX. Tigerpaper, 24(2):14-19. **Annotation:** Elephants responsible for 50% of crop damage caused by animals despite crop protection efforts. Electric fencing drawback is that elephants usually manage to get through or over fences, though some increase in effectiveness achieved [E/ECM].
- 3850 EcgW JAYEWARDENE, Jayantha. (1998). Elephant conservation amidst development. Part X. Tigerpaper, 25(2):4-8. **Annotation:** Interactions between people and elephants in different Mahaweli project areas in Sri Lanka. Elephants in irrigation canals, farmers' animosity towards elephants, elephant deaths due to ethnic conflict, and local migrations of elephants [SLS].
- 3851 EcwW JAYEWARDENE, Jayantha. (1998). Fifteen year study of the elephant problems in Sri Lanka's Mahaweli development projects. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), pp. 24-25. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 3852 EqmC JAYEWARDENE, Jayantha. (1998). Status, distribution and number of elephants in captivity in Sri Lanka. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), p. 24. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 3853 BgcB JAYEWARDENE, Jayantha and SANTIAPILLAI, Charles (Organizers/editors). (1998). National Symposium on Elephant Management and Conservation. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp. **Annotation:** Symposium at BMICH on May 29-30, 1998. Overviews of research in Sri Lanka, India, Africa; bibliography of Asian elephant pertaining to Sri Lanka. Cover hand made of 75% elephant dung, 25% recycled paper. For publication, write: Maximus, 329, Dam Street, Colombo 12, Sri Lanka [JS].
- 3854 LucW JERABEK, Ilka. (1988). African elephant update. Hasti Newsletter, 8:1, 5.
- 3855 BqtB JERABEK, Ilka. (1988-1989). Elephant training and handling. Hasti Newsletter, 9:3-5. **Annotation:** Built on elephant trainers' comments in North America, with some alternatives presented [SLS].
- 3856 LenW JEWELL, P. A. and MALOY, G. M. O. (eds). (1989). The biology of large African mammals in their environment. [=Symposium of the Zoological Society of London, no. 61]. Oxford University Press, Oxford, xix + 304 pp. **Annotation:** Habitat alteration, food, vegetation elephants eat. Reviewed in 1990 "Biological Conservation", 54(1):80 [MPK].

- 3857 EcqB JHA, P K., GHIMIRE, G. P. S., and TRIPATHI, G. R. (1994). Royal Chitwan National Park: past and present. *Tigerpaper*, 21(3):5-10. **Annotation:** In 1994, 113 elephants were present [SLS].
- 3858 \*wvU Ji, H. (1987). Geographical distribution and subdivision of Quaternary mammalian fauna of China. *Journal of Stratigraphy*, 11:91-102 [in Chinese].
- 3859 \*wvU JIN, Changzhu, XU, Qinqi, and ZHENG, Jiajian. (1998). On the dispersal events of *Mammuthus* during the late late Pleistocene. *Vertebrata Palasiatica*, 36(1):47-53. **Annotation:** Two late late Pleistocene dispersal events of *Mammuthus* recognized from northern China. The first, at the oxygen isotope Stage 4, in which *Mammuthus* reached to N44° from Siberia; the second at the oxygen isotope Stage 2, during which *Mammuthus* migrated from N44° to about N35°, indicating that *Mammuthus* geographically arrived in places much more southern than those in the period of the oxygen isotope Stage 4 [E/ECM, abstract].
- 3860 \*wvU JOGER, U. and KOCH, U. (1994). *Mammuts aus Siberien*. Herausgabe Hessisches Landesmuseum, Darmstadt.
- 3861 EwcW JOHNSINGH, A. J. T. (1992). Elephant corridor in Uttar Pradesh, India. *Proceedings of the IUCN Species survival Commission, Asian Elephant Specialist Group meeting*, Bogor, Indonesia, 20-22 May 1992, pp. 75-80. Compiled by Asian Elephant Conservation Centre.
- 3862 EcwW JOHNSINGH, A. J. T. (1993). Elephant corridors in Uttar Pradesh, India. *Gajah*, 11:43-47. **Annotation:** Analysis and recommendation on a program which was 7 years old [JLP].
- 3863 LcwW JOHNSINGH, A. J. T. and JOSHUA, J. (1994). Conserving Rajaji and Corbett National Parks—the elephant as a flagship species. *Oryx*, 28(2):135-140.
- 3864 EcjW JOHNSINGH, A. J. T. and PANWAR, H. S. (1989). Elephant conservation in India - Problems and prospects. Paper submitted in the 5th International Theriological Congress, Rome (August 1989).
- 3865 EcwW JOHNSINGH, A. J. T. and WILLIAMS, Christy. (1999). Elephant corridors in India: lessons for other elephant range countries. *Oryx*, 33(3):210-214.
- 3866 EcwW JOHNSINGH, A. J. T., PRASAD, S. N., and GOYAL, S. P. (1990). Conservation status of the Chila-Motichur corridor for elephant movement in Rajaji-Corbett National Parks area, India. *Biological Conservation*, 51(2):125-138.
- 3867 LciW JOHNSTON, Georgann. (1997). CITES meeting closes with mixed results for endangered species: African elephants. *Animal Keepers' Forum*, 24(8):357-360.
- 3868 LckW JOHNSTON, Georgann. (1999). Botswana baby elephants turned over to National SPCA. *Animal Keepers' Forum*, 26(1):17-18. **Annotation:** See Reference nos. 3872, 3873, 3874, 4497, 4905, 5420 [ECM].
- 3869 LijW JOHNSTON, Georgann. (1999). CITES allows ivory sale to Japan. *Animal Keepers' Forum*, 26(4):138. **Annotation:** CITES voted to allow Zimbabwe and Namibia to sell stocks of ivory to Japan [ECM].
- 3870 BcjW JOHNSTON, Georgann. (1999). Endangered Species Act bill introduced. *Animal Keepers' Forum*, 26(4):139. **Annotation:** In March, Representative George Miller introduced bill in U.S. House of Representatives to reauthorize Endangered Species Act [ECM].
- 3871 BcjB JOHNSTON, Georgann. (1999). ESA update. *Animal Keepers' Forum*, 26(8):304-305.
- 3872 LcqC JOHNSTON, Georgann. (1999). Some Tuli elephants transferred to German zoo. *Animal Keepers' Forum*, 26(3):100. **Annotation:** Seven of the TGR elephants were flown to Germany in January, four to zoos in Dresden and Erfurt and three to Basel, Switzerland. See Reference nos. 3868, 3873, 3874, 4497, 4905, 5420 [ECM].
- 3873 LcqC JOHNSTON, Georgann. (1999). Transfer of elephants to Japan approved by CITES secretariat. *Animal Keepers' Forum*, 26(4):136. **Annotation:** Transfer of three of the TGR elephants residing in a park in South Africa has been approved. The proposed recipient is a Japanese safari park that houses six South African elephants. A final decision has not been made. See Reference nos. 3868 3872, 3874, 4497, 4905, 5420 [ECM].
- 3874 LcqC JOHNSTON, Georgann. (1999). Update on "Tuli elephants". *Animal Keepers' Forum*, 26(2):61. **Annotation:** Young elephants taken from TGR seized by South African NSPCA from wildlife dealer causing debate among animal interest groups and government agencies. Minister for Agriculture and Land Affairs of South Africa said seven of the 30 TGR elephants would be transported to zoos in Germany and Switzerland. See Reference nos. 3868, 3872, 3873, 4497, 4905, 5420 [E/ECM].
- 3875 LiuW JONES, Robert F. (1990). Farewell to Africa. Photography by Boyd Norton. *Audubon*, September issue:50-60, 62-69, 72-80, 85-94, 97-105. **Annotation:** Box on ivory ban by Frank Graham, Jr. Jones and Norton note: "...see what hope, if any, remained for it in the future". Box interviewing Richard Leakey, pp. 74-5. Box "The view from Zimbabwe" by Kim Heacox, p. 91. Box on hunting dogs by Boyd Norton, p. 101 [E/JLP].
- 3876 BodB JONES, S. J., ARORA, M., and BOYDE, A. (1995). The rate of osteoclastic destruction of calcified tissues is inversely proportional to mineral density. *Calcified Tissue International*, 56(6):554-558.
- 3877 EwjW JOSHUA, Justus and JOHNSINGH, A. J. T. (1995). Ranging patterns of elephants in Rajaji National Park: implications for reserve design. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 256-260. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3878 LucW JOUBERT, Dereck. (1995). To hunt or not to hunt: the elephant debate. In *The present status of wildlife and its future in Botswana*. Kalahari Conservation Society and the Chobe Wildlife Trust, 7-8 November 1995, Gaborone. The Kalahari Conservation Society/The Chobe Wildlife Trust, Gaborone, pp. 101-103.
- 3879 LbiW JOUBERT, Dereck and JOUBERT, Beverly. (1991). Eyewitness to an elephant wake. *National Geographic*, 179(5):39-41. **Annotation:** Fallen bull's companions tend his carcass for seven days. Insert in Chadwick's (1991) article; see Reference no. 3040 [MPK].
- 3880 LlwW JOUBERT, D. and JOUBERT, B. (1994). Lions of darkness. *National Geographic*, 186(2):32-53. **Annotation:** Predation, mortality, Savuti, CNP, Botswana [MPK].
- 3881 LcuW JOUBERT, D. and JOUBERT, B. (1996). A plea for the gentle souls of Africa. *Getaway* (South Africa), 8(8):62-67. **Annotation:** Hunting, culling/habitat-alteration, behavior, vocalization, parenting, Chobe River, CNP [MPK].
- 3882 ErqC JUNGE, Randall E. (1994). Medical preparations for parturition for a primiparous Asian elephant. *The Elephant Managers Association Newsletter*, 5(3):39-40.

- 3883 LbrW KABIGUMILA, J. (1993). Diurnal activity of the elephants in Ngorongoro Crater, Tanzania. *African Journal of Ecology*, 31(1):75-80. **Annotation:** Elephants using Ngorongoro Crater floor are mature bulls only. Observations made by following known bulls recording activity at 5-minute intervals. Total of 103 bulls, 71 in dry season and 32 in wet season, followed for periods of 2 to 4 hours. No musth behavior suggesting that bulls using crater floor not sexually active. These animals may be using area to avoid harassment from sexually active bulls consorting with females, and to replenish energy spent while sexually active. Elephants in crater spend about 69% of time feeding, higher than noted elsewhere. Study focused on bulls, showing they devote little time to social activities, partly because they are mostly solitary, and partly because they have no social ties [ID-H/M&DR].
- 3884 LncW KABIGUMILA, J. (1993). Feeding habits of elephants in Ngorongoro Crater, Tanzania: *African Journal of Ecology*, 31(2):156-164. **Annotation:** Observations on feeding habits of elephants from June 1984 to May 1985. Elephants' diet comprised at least 36 plant species ranging from big trees to small herbs. Elephants ate mostly sedges and tree browse during dry season, and forbs and grass during wet season. Elephants browsed on and damaged *Acacia xanthophloea* with greatest damage occurring to saplings in dry season. Since elephant damage was seasonal, most saplings would recover during wet season. Recommendation for continued monitoring of forest so that proper management can be taken to conserve it [ID-H/M&DR].
- 3885 LjwW KAHL, M. Philip and ARMSTRONG, Billie D. (2000). Observations on African elephants (*Loxodonta africana*), including possible urine drinking, during a severe drought in Zimbabwe. *Elephant*, 2(4):21-25. **Annotation:** During a severe drought during 1995 at HNP, several unusual behavior patterns observed. Juvenile elephants seen and filmed drinking urine excreted by adults. Both species of oxpeckers (*Buphagus*) seen repeatedly on the backs of elephants at Nehimba, a natural seep [MPK].
- 3886 LjwW KAHL, M. Philip and ARMSTRONG, Billie D. (2000). Visual and tactile displays in African elephants, *Loxodonta africana*: a progress report (1991-1997). *Elephant*, 2(4):19-21. **Annotation:** During seven-year field study at HNP, over 83 ritualized displays recognized. Thousands of photos, over 200 hours of videotape collected in documentation [MPK].
- 3887 \*gvU KAHLKE, Ralf-Dietrich. (1988). Bemerkenswerte Reste Pleistozäner Säugetiere im zoologischen museum Leningrad. *Cranium*, 5(1):51-56 [with English summary]. **Annotation:** Collection of Pleistocene animals from Soviet Union in zoological museum, Leningrad [ECM].
- 3888 \*vaU KAHLKE, Ralf-Dietrich. (1990). Zur Festlegung des Lectotypus von *Mammuthus trogontherii* (Pohlig, 1885) (Mammalia, Proboscidea). *Quartärpaläontologie*, 8:119-124.
- 3889 \*vwU KAHLKE, Ralf-Dietrich. (1995). Die Abfolge plio-/pleistozäner Säugetierfaunen in Thüringen (Mitteldeutschland). *Cranium*, 12(1):5-18. **Annotation:** *Mammuth borsoni* and *Anancus arvernensis* [ECM].
- 3890 LmwW KAHUMBU, Paula. (1997). *The Shimba Hills elephant count*. Kenya Wildlife Service, Nairobi, 13 pp.
- 3891 +avB KALANDADZE, N. N. and RAUTIAN, A. S. (1992). The system of mammals and historical zoogeography. In *Phylogenetics of mammals* (ed. O. L. Rossolimo), pp. 44-152. Archives of Zoological Museum Moscow State University, Volume. XXIX [in Russian with English summary]. **Annotation:** "Temporal series of zoogeographical reconstructions from late Triassic to Recent is made on the basis of systematic lists of strictly terrestrial archosaurs, theromorphs, and mammals." Proboscideans appear in the table on pp. 107-109 [E/ECM].
- 3892 \*vwU KALB, Jon E. (1995). Fossil elephantoids, Awash paleolake basins, and the Afar triple junction, Ethiopia. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 114(1995):357-368.
- 3893 \*vwU KALB, Jon E. and FROELICH, David J. (1995). Interrelationships of late Neogene elephantoids: new evidence from the Middle Awash Valley, Afar, Ethiopia. *Geobios*, 28(6):727-736. **Annotation:** "As the most diverse collection of Elephantoida from one area and a single stratigraphic sequence, fossils from the Middle Awash Valley, Ethiopia, add significantly to our current knowledge of the morphology and systematic phylogeny of late Neogene proboscideans." Includes *Anancus*, *Stegotetabelodon*, *Stegodibelodon*, *Stegodon* [E/ECM].
- 3894 \*vwU KALB, Jon E. and MEBRATE, Asseffe. (1993). Fossil elephantoids from the hominid-bearing Awash Group, Middle Awash Valley, Afar Depression, Ethiopia. *Transactions of the American Philosophical Society*, 83(1):xvi + 1-114. **Annotation:** Reviewed by A. M. Lister in 1994 in "Journal of Evolutionary Biology", 7:517-518 (Reference no. 4193) and by J. Shoshani in 1994 in "The Quarterly Review of Biology", 69(3), 392-3 (Reference no. 5131) [MPK].
- 3895 \*ewU KALB, Jon E., FROELICH, David J., and BELL, Gordon L. (1996). Paleobiogeography of late Neogene African and Eurasian Elephantoida. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 117-123. Oxford University Press, 472 pp.
- 3896 +avB KALB, Jon E., FROELICH, David J., and BELL, Gordon L. (1996). Phylogeny of African and Eurasian Elephantoida of the late Neogene. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 101-116. Oxford University Press, 472 pp. **Annotation:** *Loxodonta africana*, *Elephas maximus*, teeth, systematics, tusks, evolution [MPK].
- 3897 LbwW KALEMERA, M. C. (1987). Dry season diurnal activity of elephants in Lake Manyara National Park, Tanzania. *African Journal of Ecology*, 25(4):255-263. **Annotation:** Daytime activities of elephants in *Acacia tortilis* woodland of LMNP monitored over two dry seasons 1981 and 1982. Two methods to assess activity pattern were point sample technique, with one sample involving several elephants, and continuous observation. Variant of latter, the 5-minute interval method, used on one focal elephant each time. Activities analyzed as to time of day, tree density. Chi-squared tests showed there was no variation of activities as to various *A. tortilis* density categories. Elephants descend escarpment every morning so walking is pronounced activity at this time. They rest in woodland around noon, visit lake shore in the evening before most of them return up escarpment [ID-H/M&DR].
- 3898 LnjW KALEMERA, M. C. (1989). Observations on feeding preference of elephants in the *Acacia tortilis* Woodland of Lake Manyara National Park, Tanzania. *African Journal of Ecology*, 27(4):325-333. **Annotation:** Dry season food preference of elephants recorded using 'first feed' method. At least 35 species eaten, varying from trees to small herbs. Feeding on woody species appeared in proportion to abundance. When rainfall low, lake levels drop, increasing availability of lake shore grassland, in years of high rainfall, grassland is flooded and elephants resort to browsing as major form of foraging [ID-H/M&DR].
- 3899 EwcW KAMALAKANNAN, S. (1992). Impact of elephants (*Elephas maximus*) on trees in micro habitats during dry season in Mudumalai Wildlife

- Sanctuary, Tamil Nadu. M.Sc. Dissertation, A.V.C. College, Mayiladuthurai, Tamil Nadu (India).
- 3900 \*awU KAMEI, Tadao (ed.). (1991). Japanese proboscidean fossils. Tsukiji-Shokan, Tokyo, 273 pp.
- 3901 \*avU KAMIYA, H. (1991). Development of enamel layer [sic] observed in some fossil proboscideans. In Mechanisms and phylogeny of mineralization in biological systems (ed. S. Suga and H. Nakahara), pp. 483-487. Springer-Verlag, Tokyo.
- 3902 \*jhU KAMIYA, H., TAMURA, M., KAMEI, T., SHIMIZU, D., ISHIGAKI, S., KUGA, N., MATSUOKA, C., OKAMURA, Y., and RESEARCH GROUP FOR FOSSIL FOOTPRINTS. (1991). Well preserved fossil mammalian footprints from the Plio-Pleistocene Kobiwako group, central Japan. Abstracts, XIII International Union for Quaternary Research (INQUA), August 2-9, Beijing, China.
- 3903 LcwW KANGWANA, Kadzo Flora. (1993). Elephants and Maasai. Conflict and conservation in Amboseli Kenya. D. Phil. thesis, Cambridge University, UK, 157 pp.
- 3904 LckW KANGWANA, Kadzo Flora. (1994). Human-elephant conflict in relation to CITES: an East African perspective. In The African elephant in the context of CITES 19-23 September, 1994. Kasane, Botswana. Part B Background Papers, London, United Kingdom. Department of the Environment, pp. 41-48. **Annotation:** Background of rising human-elephant conflict situations, management options. Methods of mitigation of conflicts include barriers, control shooting, compensation, community participation and translocation. Land use planning considered of key importance, recommendations put forth [ID-H/M&DR].
- 3905 LbeU KANGWANA, Kadzo Flora. (1995). Avoidance of Maasai by African elephants (*Loxodonta africana*). In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 529-530. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp. **Annotation:** Interaction between African elephant and Maasai, nomadic pastoral people in vicinity of ANP. Maasai have tradition of young men or warriors spearing wild animals, including elephants, to prove courage. Practice has little effect on population, less than 1% loss per year, but does influence elephant behavior. Tape recordings of Maasai sounds of cattle bells and mooing played to groups of elephants caused animals to indicate fear. Family groups had greater reaction than bulls. Research provides example of how traditional practices of a people has influenced elephant behavior in a way that reduces confrontation [ID-H/M&DR].
- 3906 LbcW KANGWANA, Kadzo Flora. (1995). Elephant-Maasai interaction in Amboseli, Kenya. In Integrating people and wildlife for a sustainable future (ed. J. A. Bissonette, and P. R. Krausman), pp. 34-36. Proceedings of the first International Wildlife Management Congress. The Wildlife Society, Bethesda.
- 3907 LceW KANGWANA, Kadzo Flora. (1995). Human-elephant conflict: the challenge ahead. Pachyderm, 19:11-14. **Annotation:** Overview paper at AfESG meeting, text reflects contributions of group members, highlights key issues of human-elephant conflict, suggests policy options allowing for the mitigation of this growing situation [ID-H/M&DR].
- 3908 LceW KANGWANA, Kadzo Flora. (1996). Assessing the impact of human-elephant interactions. In Studying elephants (ed. K. Kangwana), pp. 138-147. African Wildlife Foundation, Nairobi, Kenya, 178 pp. **Annotation:** Reasons behind increasing land use conflicts; ways managers can identify and monitor negative human-elephant situations. Questionnaire surveys, independent assessments, consultation of existing records and observation of elephants are four basic ways to ascertain the problem, how to utilize information from these methods [ID-H/M&DR].
- 3909 LcjW KANGWANA, Kadzo Flora (ed.). (1996). Studying elephants. African Wildlife Foundation (Nairobi, Kenya), AWF Technical Handbook Series, 7:iv, 1-178. **Annotation:** One of series of handbooks on techniques in African wildlife ecology, integrating research and management. Techniques used to estimate populations [ID-H/M&DR]. Reviewed in 1996, "Pachyderm", 22:96 and JEMA, 7(3):80 [ECM].
- 3910 \*ehU KAPP, R. O., CLEARY, D. L., SNYDER, G. G., and FISHER, D. C. (1990). Vegetational and climatic history of the Crystal Lake area and the Eldridge Mastodont Site, Montcalm County, Michigan. American Midland Naturalist, 123(1):47-63. **Annotation:** Pollen diagrams, radiocarbon dates, pollen zone stratigraphy. Open spruce parkland began over 12,000 years before present (ybp), followed by hardwood such as oak, black ash, blue beech, alder and willow. The American mastodon is believed to have been butchered and its habitat at about 11,000 ybp was dominated by coniferous and deciduous forest [JS].
- 3911 BidC KAPUSTIN, N., PROUDFOOT, Jeff, and WILLIS, George. (1996). An approach to tusk repair. Journal of the Elephant Managers Association, 7(1):44-45.
- 3912 LroC KAPUSTIN, Nikolay, CRITSER, J. K., OLSON, Deborah, and MALVEN, P. V. (1996). Nonluteal estrous cycles of 3-weeks duration are initiated by anovulatory leuteinizing hormone peaks in African elephants. Biology of Reproduction, 55(5):1147-1154.
- 3913 LucW KARESH, W. B. (1996). Rhino relations. Wildlife Conservation, 99(2):36-43. **Annotation:** Northern white rhino, population, poaching, conservation, GaNP [MPK].
- 3914 LucW KARMALI, Shereen. (1988). The East African Wildlife Conference. Comment: an upsurge in elephant poaching. Swara, 11(6):6-7.
- 3915 EnbC KARUNARATNE, S. H. P. P. and RANAWANA, K. B. (1998). Food preference and feeding behaviour in elephants in captivity. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), p. 15. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 3916 \*avU KASHIWAZAKI NAUMANN'S ELEPHANT RESEARCH GROUP. (1987). On a molar of elephant fossils from Sugenosawa, Toson City, Niigata, Japan. Journal of Earth Science Education, Niigata, 21:45-48 [in Japanese].
- 3917 \*mwU KASHIWAZAKI NAUMANN'S ELEPHANT RESEARCH GROUP. (1989). The <sup>14</sup>C age of fossil woods from the locality of *Palaeoloxodon naumanni* (Makiyama) in Kashiwazaki, Niigata Prefecture, central Japan. Earth Science, 45(1):62-64 [in Japanese].
- 3918 \*avU KASHIWAZAKI NAUMANN'S ELEPHANT RESEARCH GROUP. (1991). *Palaeoloxodon naumanni* (Makiyama) found in the upper Pleistocene, Yasuda Formation in the Kashiwazaki City, Niigata Prefecture, central Japan, and its palaeoenvironment. Earth Science, 45(3):161-176 [in Japanese with English abstract].
- 3919 BqtB KASTEN, R. W. (1989). Elephant management. Science, 245(4917):452.
- 3920 EgmW KATUGAHA, H. I. E. (1993). Some observations on elephants in the Ruhuna National Park, Sri Lanka. Gajah, 10:26-31. **Annotation:** Observations from 1950 to 1990 and comments on future prospects [JLP].
- 3921 EwkW KATUGAHA, H. I. E. (1997). Tuskers of Ruhuna National Park, Sri Lanka. Gajah, 18:67-68. **Annotation:** "A survey of elephants in the

- wild was carried out in June 1993. Only 7.3% of the adult bulls were tuskers...as a result of protection afforded..., the number of tuskers appears to have increased somewhat. ...the role of a tusker in Sri Lanka goes well beyond its charismatic charm. It is an integral part of the island's history, culture, religion, mythology and even politics!" [E/ECM, p. 67].
- 3922 EbjW KATUGAHA, H. I. E. (1997). When elephants gather. Sunday Island (Sri Lanka), 4 September 1997. Leisure & Lifestyle, p. 1.
- 3923 EcbW KATUGAHA, H. I. E. (1998). Dynamics of the elephant population in Ruhuna National Park, Sri Lanka. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), pp. 15-16. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 3924 EewW KATUGAHA, H. I. E., DE SILVA, M., and SANTIAPILLAI, C. (1998). A long-term study of the dynamics of the elephant (*Elephas maximus*) population in Ruhuna National Park, Sri Lanka. Biological Conservation, volume and pages not provided.
- 3925 BqtC KEELE, Michael N. (1988). Getting your elephant (management) act together. In Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988, pp. 67-72. Jacksonville Zoological Park, Florida, 145 pp.
- 3926 ErcC KEELE, Michael N. (1992). Asian elephant regional studbook. Metro Washington Park Zoo, Portland, Oregon, 86 pp. **Annotation:** See Reference no. 3928 [SLS].
- 3927 ErcC KEELE, Michael N. (1994). Asian elephant regional studbook update. Metro Washington Park Zoo, Portland, Oregon, 89 pp. **Annotation:** See Reference no. 3928 [SLS].
- 3928 ErcC KEELE, Michael N., DIMEO-EDIGER, Norie, and LACKEY, Laurie Bingaman. (1997). Asian elephant regional studbook. Metro Washington Park Zoo, Portland, Oregon, 150 pp. **Annotation:** Used in part to construct data for "Captive elephant population of North America: 1987-1999"; see Contents of this issue of Elephant [SLS].
- 3929 ElmC KEELE, Mike and BROWN, Janine. (1998). A letter to Elephant SSP Institutional representatives. Journal of the Elephant Managers Association, 9-(2):101-102. **Annotation:** Recent life table analysis conducted by Dr. Robert Wiese (Assistant Director of Animal collections, Fort Worth Zoo) predicts that without additional imports from the wild, North American Asian elephant population will be reproductively "dead" within four decades [E/ECM].
- 3930 LdaW KEET, D. F. (reprinted 1994). An approach to the autopsy on the African elephant. In The African elephant as a game ranch animal, (ed. J. van Heerden and B. L. Penzhorn), pp. 136-146. SAVA [South African Veterinary Association] Wildlife Group, Onderstepoort, South Africa, 192 pp. **Annotation:** Disease, respiration, nutrition, parasites, urine, trunk, brain, teeth, skin, anatomy, tusks, vomeronasal organ, injury, eyes, reproduction, cardiovascular, blood [MPK].
- 3931 LdaW KEET, D. F. (reprinted 1994). Autopsy procedure and a review of diseases of the African elephant *Loxodonta africana* in the Kruger National Park. In The African elephant as a game ranch animal, (ed. J. van Heerden and B. L. Penzhorn), pp. 95-103. SAVA [South African Veterinary Association] Wildlife Group, Onderstepoort, South Africa, 192 pp.
- 3932 LdaW KEET, D. F., GROBLER, D. G., RAATH, Jacobus P., GOUWE, J., CARSTENS, J., and NESBIT, J. W. (1997). Ulcerative pododermatitis in free-ranging African elephant (*Loxodonta africana*) in the Kruger National Park. Onderstepoort Journal of Veterinary Research, 64(1):25-32.
- 3933 LamC KELLOGG, Walter G. (1998). How tall? Circus Report, 34(26):11-12, 17. **Annotation:** "The Circus Scrapbook", April, 1932. As of 1932, the height of "Jumbo" varied from 10 feet, 3 inches to 11 feet, 6 inches, depending on whom consulted [ECM].
- 3934 LdaU KELLY, P. J., CARTER, S. D., AZWAI, S. M., CADMAN, H. F. (1998). Isolation and characterisation of immunoglobulin g and IgG subclasses of the African elephant (*Loxodonta africana*). Comparative Immunology, Microbiology & Infectious Diseases, 21(1):65-73.
- 3935 LcjW KELSO, Bobbie Jo. (1995). Ninth meeting of the Conference of the Parties to CITES. TRAFFIC Bulletin, 15(2):63-76.
- 3936 LcjW KELSO, Bobbie Jo. (1995). No peace yet for African elephants. New African, 328:21.
- 3937 EcwW KEMF, Elizabeth and JACKSON, Peter. (1995). Asian elephants in the wild. WWF-World Wide Fund for Nature, Gland, Switzerland, 24 pp. **Annotation:** See Reference no. 2905 [MPK].
- 3938 \*wvU KEMPTON, Pamela D. and LAURY, Robert L. (1994). Terraces, solution collapse events, and late Quaternary history of the Fall River, Hot Springs area, Fall River and Custer counties, South Dakota. In The Hot Springs Mammoth Site: a decade of field and laboratory research in paleontology, geology, and paleoecology (ed. L. D. Agenbroad and J. I. Mead), pp. 68-112. The Mammoth Site of South Dakota, Hot Springs, 457 pp.
- 3939 LchW KENNEDY, Joe. (1995). Of children and cheetahs. BBC Wildlife, 13(7):70-72. **Annotation:** "Since his controversial resignation from Kenya's Wildlife Service, Richard Leakey has been keeping a low profile. But now he's back, and he's launching himself into politics. In the calm before the fray, director Joe Kennedy joined him on safari to learn about his views on the future of Kenya, its people and its wildlife" [E/ECM].
- 3940 EhlC KENT, Richmond G. (1997). Letter re: "Who killed Betty the elephant?" Yankee, September 1997:10. **Annotation:** Claims that "Betty", a.k.a. "Little Bett", "fell victim to youthful high spirits, albeit savagery". See Reference nos. 2461, 3445 for the story of Betty's fate [E/ECM].
- 3941 LcjW KENYA WILDLIFE SERVICE. (1990). Elephant conservation plan and management. Kenya Wildlife Service, Nairobi, ix, 92 pp.
- 3942 BdiC KERTESZ, Peter. (1990). The principles of elephant tusks and their extraction. Proceedings of the Fourth Elephant Keepers Workshop, Port Lympne Zoo Park, England, pages 18-20. Port Lympne Zoo Park, Port Lympne, England, 35 pp.
- 3943 EceW KHAN, Afifullah. (1995). Elephant conservation unit: linking two elephant populations in north-western India. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 162-176. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3944 LicW KHANNA, Jyoti and HARFORD, Jon. (1996). The ivory trade ban: is it effective? Ecological Economics, 19(2):147-155.
- 3945 EtqC KHIT, A. (1989). Training working elephants in Laos. Proceedings of the Annual Elephant Workshop, 10:15-21.
- 3946 EcwW KHOI, L. V. (1995). Report on elephants in Vietnam. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 120-122. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 3947 LrpB KIDSON, A., LOSKUTOFF, N. M., RAATH, Jacobus, WOOD, Colleen A., WILLIAMS, K. R., VAN SCHALKWYK, J. O., DYCKE, W. K., BARRY, D. M., and BARATELS, P. (1995). Age- and parity-dependent differences in ovarian activity and oocyte maturity in the African elephant

- (*Loxodonta africana*). *Theriogenology*, 43(1):246.
- 3948 LckW KIIRU, Winnie. (1995). The current status of human-elephant conflict in Kenya. *Pachyderm*, 19:15-19. **Annotation:** Human-elephant conflict situation in Kenya. Estimated population of 24,000 animals is much less than two decades earlier, interactions with expanding human population, particularly in agriculture have great economic and social ramifications [ID-H/M&DR].
- 3949 EckW KIIRU, Winnie. (1996). Management options for Shimba Hills elephants after fencing of the reserve. *Pachyderm*, 22:45-46.
- 3950 LhwW KINAHAN, John, PALLETT, John, VOGEL, John C., WARD, John, and LINDEQUE, Malan. (1991). The occurrence and dating of elephant tracks in the silt deposits of the lower !Khuseb River, Namibia. *Cimbebasia*, 13(10):37-43. **Annotation:** Radio carbon dating of elephant tracks preserved in river silt near Khaeros confirm that elephants frequented this area within the last three centuries [ID-H/M&DR].
- 3951 LthC KING, J. M. P. (1992). The history of domestication of the African elephant. *Proceedings of the First Natal Bushveld Symposium* [Special Publication, Grassland Society of Southern Africa]. **Annotation:** See Reference nos. 1675, 3253, 3539, 3800, 3801, 5209, 5631, 5632 [ECM].
- 3952 LcjW KING, S. (1991). Incident at Londolozi. *BBC Wildlife*, 9(1):52-54.
- 3953 EjzW KING, Simon (1993). 'Empathy'. *BBC Wildlife*, 11(1):39-40.
- 3954 LgjW KINGDON, Jonathan. (1997). *The Kingdon field guide to African mammals*. Natural World, Academic Press, San Diego, 465 pp. **Annotation:** Excellent treatment of proboscideans (pp. 302-8), illustrations and maps of *Loxodonta africana africana* and *L. a. cyclotis* [JS].
- 3955 LbmW KINLOCH, Bruce. (1988). *The Shamba Raiders: memories of a Game Warden* (2nd edition?). Ashford Press, Southampton, UK, 405 pp. **Annotation:** Rogues, vernacular-names, feet, measurements [MPK].
- 3956 BqzC KINZLEY, Colleen. (1991). Redesign of the Oakland Zoo's elephant facility. *Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991*, pp. 50-55. Burnet Park Zoo, Syracuse, 161 pp.
- 3957 BqdC KINZLEY, Colleen. (1995). Training for medical examinations, tests and treatments in protected contact. *Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995)*, 6 unnumbered pages.
- 3958 LqtC KINZLEY, Colleen. (1997). Oakland Zoo: one strategy for training the turn around behavior. *Journal of the Elephant Managers Association*, 8(2):32-33. **Annotation:** Behavior described in protected contact context [JS].
- 3959 BdeB KIRCHHOFF, Helga, SCHMIDT, Rosemarie, LEHMANN, Heiner, CLARK, Harold W., and HILL, Auriol C. (1996). *Mycoplasma elephantis* sp. nov., a new species from elephants. *International Journal of Systematic Bacteriology*, 46(2):437-441.
- 3960 UrcW KIRKPATRICK, Jay. F., TURNER, J. W., LIU, Irwin K. M., and FAYRER-HOSKEN, Richard A. (1996). Applications of pig zona pellucida immunocontraception to wildlife fertility control. *Journal of Reproduction and Fertility*, (Supplement 50):183-189.
- 3961 BtqB KIRTLAND, John. (1994). Operant definitions of reinforcement and punishment. *The Elephant Managers Association Newsletter*, 5(1):23-25.
- 3962 LucW KISANGANI, Emizet. (1994). Social divisions and the massacre of elephants in Zaire. In *Elephants and whales resources for whom?* (ed. Milton R. Freeman and Urs P. Kreuter), pp. 73-84. Gordon and Breach, Basel, xiii + 321 pp.
- 3963 BveW KITCHELL, J. A. (1990). The reciprocal interaction of organism and effective environment: learning more about "and." In *Causes of evolution: a paleontological perspective* (ed. R. M. Ross and W. D. Allmon), pp. 151-169. University of Chicago Press.
- 3964 LjnW KLAUS, Gregor and SCHMID, Bernhard. (1998). Geophagy at natural licks and mammal ecology: a review. *Mammalia*, 62(4):481-497.
- 3965 LbnW KLAUS, Gregor, KLAUS-HUGI, Corrine, and SCHMID, Bernhard. (1998). Geophagy by large mammals at natural licks in the rain forest of the Dzanga National Park, Central African Republic. *Journal of Tropical Ecology*, 14(6):829-839.
- 3966 BqtC KLEIMAN, D. G., ALLEN, M. E., THOMPSON, K. V., and LUMPKIN, S. (1995). *Wild mammals in captivity: principles and techniques*. University of Chicago Press, 640 pp.
- 3967 EcwW KLINGELHOEFFER, E. W. (1987). Aspects of the ecology of the elephant *Loxodonta africana* (Blumenbach 1797) and a management plan for the Tembe Elephant Reserve in Tongaland, KwaZulu. MSc thesis, University of Pretoria.
- 3968 EvfB KLÔS, U. and KLÔS, H.-G. (1995). Are there white elephants? *Journal of the Elephant Managers Association*, 6(2):61-62. **Annotation:** Morphology, mythology, India, Myanmar, Thailand [MPK].
- 3969 \*vjU KLUGER, Jeffrey. (1999). Free woolly out of the cold. *Time*, November 1:82-83. **Annotation:** An international team of scientists studying the remains of a 20,000-year-old woolly mammoth from central Siberian permafrost and dread of cloning it; cf. Reference nos. 5350, 5272 [E/ECM].
- 3970 LjgW KLUMPP, R. K. (1992). Samburu in drought. *Swara*, 15(6):15-19. **Annotation:** Effect of 1992 drought conditions on wildlife. Other species make use of water holes dug by elephants in dry river bed. Apparent regenerative capability of *Acacia elatior*, a favored elephant food [ID-H/M&DR].
- 3971 LmwW KNIGHT, M. H., HITCHINS, P., and ERB, K. P. (1993). An aerial survey of rhinoceros and elephant in a portion of the Chobe National Park and surrounding areas, northern Botswana, September 1992. *Pachyderm*, 17:64-74. **Annotation:** In 1992 dry season a low intensity total count aerial survey, using two aircraft simultaneously, was done for black and white rhinos, and elephants in northern Botswana. No black rhinos recorded, total of seven white rhinos. Approximate population of 14,758 elephants giving an estimated density of 1.15 per sq. km for the areas as a whole. Relatively low carcass ratio of 3% is indicative of a population with low mortality and/or increased immigration [ID-H/M&DR].
- 3972 LciW KNIGHTS, Peter. (1994). Stopping illegal wildlife trade: making CITES work. *AWI Quarterly*, 43(3):5.
- 3973 LuiW KOCH, E. (1988). Did 100,000 elephants die to pay for the war in Angola? *Weekly Mail* (Johannesburg), [2-8 Sep 88].
- 3974 LbkW KOCH, E. (1997). Elephant cull orphans turn delinquent. *Travellers Times* (Harare, Zimbabwe), 5(1):11, 14. **Annotation:** Behavior, parenting, culling, rogues, translocation, attacking humans, KNP, HGR, PNP [MPK].
- 3975 LiuW KOCH, E. (1997). Ivory plan splits elephant experts. *New Scientist*, 154(2088):4. **Annotation:** Wildlife scientists and conservationists divided over claims that decision to relax international ban on ivory trade will increase poaching in volatile states of central Africa [E/ECM].

- 3976 BrqC KOCH, E., ELSAESSER, F., BOER, M., DITTRICH, L., and ELLENDORFF, F. (1988). Pregnancy diagnosis in Asian and African elephants [Beitrag zur trachtigkeitsdiagnose bei Asiatischen und Afrikanischen elefanten]. Deutsche Tierärztliche Wochenschrift, 95(3):111-114.
- 3977 \*nvU KOCH, Paul L. (1988). The diet of Pleistocene proboscideans and its role in their extinction. Geological Society of America 1988 Centennial Celebration Program, p. A378.
- 3978 \*veU KOCH, Paul L. (1989). Paleobiology of late Pleistocene mastodons and mammoths from southern Michigan and western New York. D. Phil. thesis. University of Michigan.
- 3979 \*oeU KOCH, Paul L. (1991). The isotopic ecology of Pleistocene proboscideans. Journal of Vertebrate Paleontology, Abstracts of Papers, Volume 11, Supplement to Number 3:40A.
- 3980 \*laU KOCH, Paul L., FISHER, D. C., and DETTMAN, D. L. (1989). Oxygen isotope variation in the tusks of extinct proboscideans: a measure of season of death and seasonality. Geology, 17:515-519.
- 3981 LnoW KOCH, Paul L., HEISINGER, Jennifer, MOSS, Cynthia [J.], CARLSON, Richard W., FOGEL, Marilyn L., and BEHRENSMEYER, Anna K. (1995). Isotopic tracking of change in diet and habitat use in African elephants. Science, 267(5202):1340-1343. **Annotation:** Carbon, nitrogen and strontium isotope compositions of ANP elephants measured to examine changes in diet and habitat use since 1960s. Carbon isotopes, which reflect the photosynthetic pathway of food plants, record shift in diet from trees and shrubs to grass while strontium isotope reflects geological age of bedrock and documents concentration of elephants within the Park. High isotopic variability produced by behavior and ecological shifts, if representative of other East African populations, may complicate the use of isotopes as indicators of the source region of ivory [ID-H/M&DR].
- 3982 LkoW KOCK, Michael D., MARTIN, Rowan B., and KOCK, Nancy D. (1993). Chemical immobilization of free-ranging African elephants (*Loxodonta africana*) in Zimbabwe, using etorphine (M99) mixed with hyaluronidase, and evaluation of biological data collected soon after immobilization. Journal of Zoo and Wildlife Medicine, 24(1):1-10.
- 3983 LdaW KOCK, Nancy D. (1999). Flaccid trunk paralysis in free-ranging elephants. In Zoo & wild animal medicine: current therapy 4 (ed. Murray E. Fowler and R. Eric Miller), pp. 541-544. W. B. Saunders Company, Philadelphia, 747 pp.
- 3984 LodW KOCK, Nancy D., GOEDEGEBUURE, S. A., LANE, E. P., LUCKE, V., TYRRELL, D., and KOCK, Michael D. (1994). Flaccid trunk paralysis in free-ranging elephants (*Loxodonta africana*) in Zimbabwe. Journal of Wildlife Diseases, 30(3):432-435. **Annotation:** Epizootic of flaccid trunk paralysis began in free-ranging Zimbabwean elephants on southern shore of Lake Kariba in 1989. Involved selective neuropathy of peripheral nerves supplying the trunk, with axon and myelin degeneration, muscle atrophy, compensatory hypertrophy, and fine endomyseal fibrosis, without inflammatory changes [E/ECM, abstract]. Abstract in "Bushcraft", 1(1):14 [MPK].
- 3985 BqpC KOCK, R. A., MORKEL, P., and KOCK, M. D. (1993). Current immobilization procedures used in elephants. In Zoo and Wild Animal Medicine: current therapy (3rd edition) (ed. M. E. Fowler), pp. 436-441. W. B. Saunders Company, Philadelphia, 617 pp. **Annotation:** Captivity, respiration, temperature. See Reference nos. 1009, 3489, 3773, 4604, 5039 [MPK].
- 3986 EdhC KODIKARA, D. S. and WIMALARATNE, Omala. (1998). First reported case of rabies in an elephant in Sri Lanka. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), p. 21. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp. **Annotation:** First reported rabies case in Sri Lankan elephant, to our knowledge, first reported case in the world. In our files, reference by Beckett, published in 1932 [in the "Journal of the Bombay Natural History Society", 36:242-243] is entitled "Death of an elephant from rabies" [ECM/JS].
- 3987 LndW KOEN, Julius H. (1988). Trace elements and some other nutrients in the diet of the Knysna elephants. South African Journal of Wildlife Research, 18(3):109-110. **Annotation:** Lack of trace elements in Knysna elephant diet studied as to possible links to apparent low fertility. Marginal copper levels in forest and fynbos vegetation types may contribute [ID-H/M&DR].
- 3988 LncW KOEN, Julius H., HALL-MARTIN, Anthony J., and ERASMUS, T. (1988). Macro nutrients in plants available to Knysna, Addo, and Kruger National Park elephants. South African Journal of Wildlife Research, 18(2):69-71. **Annotation:** Fide Haynes, 1991:94 — a high-Ca diet must be balanced by increased intake of K, or else reproductive rates will be depressed [MPK].
- 3989 BvcB KOHM, Kathryn A. (ed.). (1991). Balancing on the brink of extinction: the Endangered Species Act and lessons for the future. Island Press, Washington, D.C., 318 pp. **Annotation:** CITES on pages 117-33. Elephants, pages 39, 126-7 [JS].
- 3990 UgzB KONIG, K. (1992). Elephants, bears, cats and dogs, horses. Floris Books, Edinburgh, 126 pp. **Annotation:** Elephants on pp. 13-31 [ECM].
- 3991 EckW KOTAGAMA, S. W. (1991). Status of management of protected areas in Sri Lanka. Tigerpaper, 18(3):25-32.
- 3992 \*ewU KOTSAKIS, Tassos. (1990). Insular and non insular vertebrate fossil faunas in the eastern Mediterranean islands. Proceedings of international symposium on biogeographical aspects of insularity, Rome 18-22 May 1987, Atti da Conregni Lincei, Roma, 289-334.
- 3993 LapU KOTZE, Sanet H. and COETZEE, Heleen L. (1994). A histochemical study of mucus glycoproteins or mucins in the intestinal tract of the African elephant (*Loxodonta africana*). Onderstepoort Journal of Veterinary Research, 61(2):177-181.
- 3994 EdaC KOVATS, E. and GRAF, Z. (1987). Successful treatment of hoof cancer in an Indian elephant using Naksol (plant extracts in ethanol). In Erkrankungen der Zootiere (ed. R. Ippen and H-D. Schroder), pp. 173-178. Verhandlungsbericht des XXIX. Internationalen Symposiums Über die Erkrankungen der Zootiere. [East] Berlin, German Democratic Republic: Akademie-Verlag.
- 3995 \*wvU KOWALSKI, Kazimierz and KUBIAK, Henryk. (1993). *Gomphotherium angustidens* (Cuvier, 1806) (Proboscidea, Mammalia) from the Miocene of Bechatów and the proboscidean datum in Poland. Acta Zoologica Cracoviensia, 36(2):275-80.
- 3996 +vaB KOZAWA, Y. and SUZUKI, K. (1995). Appearance of new characteristic features of tooth structure in the evolution of molar teeth of Equoidea and Proboscidea. In Aspects of dental biology: palaeontology, anthropology and evolution (ed. Jacopo Moggi-Cecchi), pp. 27-31. International Institute for the Study of Man, Florence (Italy), 460 pp. **Annotation:** See Reference no. 4451 [JS].
- 3997 +abB KOZAWA, Yukishige, AKIYAMA, Masahiko, and KOMIYA, Hidetoshi. (1989). Feeding habit estimation in carbon isotope composition and teeth structure in fossil elephant. Abstracts of Papers and Posters Fifth International Theriological Congress, Rome, 22-29 August 1989, Volume I:148.
- 3998 +vaB KOZAWA, Y., KAMIYA, H., and SAWAMURA, H. (1991). Histology and chemistry of proboscidean tooth. In Japanese proboscidean fossils (ed. S. Kamei), pp. 187-201. Tsukihi Shokan, Japan.

- 3999 +vaB KOZAWA, Y., MISHIMA, H., and SAKAE, T. (1988). Development of the elephant molar and the evolution of its enamel structure. In Teeth revisited: proceedings of the VIIth International Symposium of Dental Morphology (ed. D. E. Russell, J.-P. Santoro and D. Sigogneau-Russell), pp. 125-131. Mémoires de Muséum National d'Histoire Naturelle, Paris, Série C, 53.
- 4000 +vaB KOZAWA, Y., MISHIMA, H., and SUZUKI, K. (1991). Some evolutionary tendencies of mammalian tooth structure. In Mechanisms and phylogeny of mineralization in biological systems (ed. S. Suga and H. Nakahara), pp. 471-475. Springer-Verlag, Tokyo.
- 4001 \*hvU KOZHEVNIKOV, Juri P. and UKRAINTSEVA, Valentina V. (1999). Pleistocene tundra-steppe: arguments pro and con. Deinsea, 6:199-210.  
**Annotation:** See Reference no. 3720 for details about "Deinsea 6" [ECM/JS].
- 4002 LapU KRAMER, Beverley, TEIXEIRA, Maria, and HATTINGH, J. (1991). The histology of the adrenal gland of the African elephant, *Loxodonta africana*. South African Journal of Zoology, 26(4):193-198. **Annotation:** Tissue from 14 adult male and female elephants processed in histology study of the adrenal gland of the African elephant. Gland is surrounded by a thick capsule composed of outer layer of dense connective tissue and inner layer composed of smooth muscle fiber. Below the latter layer is another layer of undifferentiated cells. Cortex is divided into three zones similar to adrenal glands of other mammals. Large amounts of collagenous and reticular tissue support secretory cells, which have marked lipid content. The cortical cells show features typical of steroid-producing cells. The medulla is characterized by an outer region of pale-staining chromaffin-positive (adrenaline) and an inner region of intensely staining chromaffin-positive (non-adrenaline) cells [ID-H/M&DR].
- 4003 LapU KRAMER, Beverley, HATTINGH, J., TEIXEIRA, Maria, WOLF, D., and RAATH, Jacobus P. (1995). The neuromuscular junction in the African elephant *Loxodonta africana* and African buffalo *Syncerus caffer*. South African Journal of Wildlife Research, 25(1):14-16.
- 4004 +zgB KRAMER, Jon. (1996). New exhibit tells full story of elephants. Journal of the Elephants Managers Association, 7(3):40-41. **Annotation:** Exhibit from Potomac Museum Group in Minnesota, USA, on proboscideans through history began its ten-year tour in 1996; a web site (<http://natural-history.com>) provides support information on exhibit [E/SLS].
- 4005 LicW KRAMER, Peter. (1989). It's YOUR turn: harsh truths. BBC Wildlife, 7(7):481.
- 4006 \*vfU KRAUSE, Hans. (1996). The mammoth and the flood (two volumes). Hans-Krause-Verlag, Stuttgart, Germany, Vol. 1: pp. 1-360 + 360.1-2; Vol. 2: pp. 361-739. **Annotation:** Claims there are two basic explanations for extinction of woolly mammoth in northern Siberia and North America: 1) ice age theory, and 2) doctrine of the Flood [ECM].
- 4007 \*vwU KRETZOI, M. (1987). Remarks on the correlation between European and Asian late Cenozoic local biostratigraphies. Vertebrata Palasiatica, 25:145-157.
- 4008 LchW KREUTER, Urs P. (1993). Politics and African elephant conservation. NWI Resource, Spring:22-25. **Annotation:** Ivory ban as implemented by CITES; variation of elephant populations and management policies in range states including CAMPFIRE programme in Zimbabwe [ID-H/M&DR].
- 4009 LcwW KREUTER, Urs P. and SIMMS, Randy T. (1994). Economics, politics and controversy over African elephant conservation. In Elephants and whales resources for whom? (ed. Milton R. Freeman and Urs P. Kreuter), pp. 39-58. Gordon and Breach, Basel, xiii, 321 pp.
- 4010 \*evU KREUTZER, L. A. (1988). Megafaunal butchering at Lubbock Lake, Texas: a taphonomic reanalysis. Quaternary Research, 30:221-231.
- 4011 EgtC KRISHNAMURTHY, V. (1989). Care and management of elephants in south India. Proceedings of the Annual Elephant Workshop, 10:22-28. **Annotation:** Working, training, disease, parasites, parenting, reproduction [MPK].
- 4012 EqtC KRISHNAMURTHY, V. (1992). Recommendations for improving the management of captive elephants in Way Kumbas National Park, Lampung, Sumatra, Indonesia. Gajah, 9:4-13.
- 4013 EqtC KRISHNAMURTHY, V. and WEMMER, Chris. (1995). Timber elephant management in the Madras Presidency of India (1844-1947). In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 456-472. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 4014 EdhC KRISHNAMURTHY, V. and WEMMER, C. (1995). Veterinary care of Asian timber elephants in India: historical accounts and current observations. Zoo Biology, 14(2):123-133.
- 4015 \*vpU KRUEGER, H. W. (1991). Exchange of carbon with biological apatite. Journal of Archaeological Science, 18:355-361.
- 4016 BicW KRUGER, F. J. (1995). Legitimizing the ivory trade using isotopic techniques: tagging versus tracing. South African Journal of Wildlife Research, 26(4):131-132. **Annotation:** Possible to tag a tusk to trace ivory on market by adding chemical marker to isotopic system of identification. Portion of marker retained for reference, rest sold with tusk to serve as tag of legitimacy [ID-H/M&DR].
- 4017 BihB KRZYSKOWSKA, O. H. (1988). Ivory in the Aegean Bronze Age: elephant tusk or hippopotamus ivory. The Annual of the British School of Archaeology at Athens, 83:209-234.
- 4018 BiaB KRZYSKOWSKA, O. H. (1990). Ivory and related materials. an illustrated guide. Classical Handbook 3. Bulletin Supplement 59. London.
- 4019 BiyB KRZYSKOWSKA, O. H. (1992). Aegean ivory carving: towards an evaluation of late Bronze Age workshop material. In Ivory in Greek and the eastern Mediterranean from the Bronze Age to the Hellenistic period (ed. J. Lesley Fitton), pp. 25-35. British Museum Occasional Paper 85.
- 4020 +vwB KUBIAK, Henryk. (1989). Trabowce — Proboscidea. In History and evolution of the terrestrial fauna of Poland (ed. Kazimierz Kowalski), pp. 203-8. Folia Quaternaria, 59-60, Kraków, Poland.
- 4021 LrpC KUCERA, Jerry. (1995). Musth period in an African bull elephant. Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 8 unnumbered pages.
- 4022 \*avU KUMAR, K. (1991). *Anthracobune aijiensis* nov. sp. (Mammalia: Proboscidea) from the Subathu Formation, Eocene from NW Himalaya, India. Géobios, 24(2):221-239.
- 4023 EbwW KUMAR, S. R. and SATHYANARAYANA, M. C. (1993). Crop raiding patterns in Hosur and Dharmapuri forest divisions. Dharmapuri district Tamilnadu. Abstracts, p. 29, International seminar on the conservation of the Asian elephant, Mudumalai Wildlife Sanctuary, 13-18 June 1993. Bombay Natural History Society.
- 4024 LgcW KUNKEL, R. (1989). Elephant d'Afrique: dernier episode? Terre Sauvage, 29:40-58. **Annotation:** Plight of African elephant in general with photographs taken mainly in LMNP [ID-H/M&DR].



- 4025 LycW KÜNKELE, Reinhard. (1999). African elephants. N. Abrams, Inc., New York, 224 pp. **Annotation:** Impressive color photographs of elephants in various ecological scenes. Many are spread on two pages. One stunning closeup, near the middle of the photographs, is a magnification, probably of the skin of a trunk; cf. Reference no. 2032 [JS].
- 4026 BdqC KUNTZE, A. (1987). Surgery on elephants. Monatshefte für Veterinarmedizin, 42(11):399-403.
- 4027 BdqC KUNTZE, A. (1987). Wound healing in elephants. In Erkrankungen der Zootiere (ed. R. Ippen and H.-D. Schroeder), pp. 167-171. Verhandlungsbericht des XXIX. Internationalen Symposiums Über die Erkrankungen der Zootiere. Akademie-Verlag, [East] Berlin, German Democratic Republic.
- 4028 BdqC KUNTZE, A. (1989). Disorders of performing elephants: perineal hernia, prepatellar bursitis and olecranal tyloma. In Erkrankungen der Zootiere (ed. R. Ippen and H.-D. Schroeder), pp. 185-187. Verhandlungsbericht des XXXI. Internationalen Symposiums Über die Erkrankungen der Zootiere. Akademie-Verlag, [East] Berlin, German Democratic Republic.
- 4029 UcgU KURT, Fred. (1987). Les elephants et l'environnement: escaliers geants, centres d'alimentation. Swissair Gazette, 9:18-19.
- 4030 UgzU KURT, Fred. (1987). The elephant in the china shop...where it would behave quite well. Swissair Gazette, 9:15.
- 4031 EqgC KURT, Fred. (1994). Die Erhaltung des Asiatischen Elefanten in Menschenbhut: ein Vergleich zwischen verschiedenen Hantungssystemen in Sudasien und Europa. Zeitschrift des Kolner Zoo, 91-113.
- 4032 EahW KURT, Fred, HARTL, G. B., and TIEDEMANN, R. (1995). Tuskless bulls in Asian elephant *Elephas maximus*: history and population genetics of a man-made phenomenon. Acta Theriologica, Supplement 3:125-143.
- 4033 +vhB KURTÉN, B. (1988). On evolution and fossil mammals. Columbia University Press, New York, 301 pp.
- 4034 EcpW KURUWITA, V. Y. (1998). Summary of significant contributions made by veterinarians in the conservation of elephants in Sri Lanka. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), p. 28. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 4035 EadW KURUWITA, V. Y. and VASANTHATHILAKE, V. W. S. M. (1993). Gastro-intestinal nematode parasites occurring in free-ranging elephants (*Elephas maximus maximus ceylonicus*) (sic) in Sri Lanka. Sri Lanka Veterinary Journal, 40(1):15-23.
- 4036 LmcW LACROIX, Frederic. (1992). Inventaire national des elephants et de la grande faune. Ministere de l'Environnement et du Tourisme, Ouagadougou, 93 pp.
- 4037 LcwW LAHIRI-CHOUDHURY, Dhriti K. (1988). Aggression in young elephants. Hornbill, 1988(2):28-39.
- 4038 EqtB LAHIRI-CHOUDHURY, Dhriti K. (1989). The Indian elephant in a changing world. In Contemporary India: essays on the uses of tradition (ed. C. M. Borden), pp. 301-321. Oxford University Press, Delhi, India, total pages not provided.
- 4039 Ehzb LAHIRI-CHOUDHURY, Dhriti K. (1991). Indian myths and history. In The illustrated encyclopedia of elephants (consult. ed. S. Keith Eltringham), pp. 130-147. Crescent Books, New York, 188 pp.
- 4040 EbkW LAHIRI-CHOUDHURY, Dhriti K. (1991). Keeping wild elephants at bay. In The illustrated encyclopedia of elephants (consult. ed. S. Keith Eltringham), pp. 166-169. Crescent Books, New York, 188 pp. **Annotation:** Attacking-human, culling [MPK].
- 4041 EcjW LAHIRI-CHOUDHURY, Dhriti K. (1991). Saving elephants for posterity. Asian Elephant Specialist Group Newsletter, 6:18-19.
- 4042 EkoW LAHIRI-CHOUDHURY, Dhriti K. (1991). Translocation of wild elephants. Technical Report No. 1. Asian Elephant Conservation Centre of the IUCN/SSC Asian Elephant Specialist Group, no page numbers provided.
- 4043 EghC LAHIRI-CHOUDHURY, Dhriti K. (1992). History of elephants in captivity in India and their use: an overview. The 13th International Elephant Workshop, Atlanta, 1992, pp. 17-25. Zoo Atlanta, Georgia, 151 pp.
- 4044 EnhC LAHIRI-CHOUDHURY, Dhriti K. (1992). Management and diet of elephants in ancient and medieval India. The 13th International Elephant Workshop, Atlanta, 1992, pp. 9-16. Zoo Atlanta, Georgia, 151 pp.
- 4045 ErfW LAHIRI-CHOUDHURY, Dhriti K. (1992). Musth in Indian elephant lore. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 82-84. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London.
- 4046 EbcW LAHIRI-CHOUDHURY, Dhriti K. (1992). Preventing elephant depredation. In Technical Report no. 2 (ed. U. Ramakrishnan, J. A. Santosh, and R. Sukumar), pp. 68-74. Asian Elephant Conservation Centre of IUCN/SSC-AESG, Bangalore, India.
- 4047 EbcW LAHIRI-CHOUDHURY, D. K. (1993). Problems of wild elephant translocation. Oryx, 27(1):53-55.
- 4048 EceW LAHIRI-CHOUDHURY, D. K. (1995). Conservation of the Asian elephant - 1971-92: an overview. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 19-31. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 4049 LcwW LAHM, Sally A. (1996). A nationwide survey of crop-raiding by elephants and other species in Gabon. Pachyderm, 21:69-77. **Annotation:** Gabon harbors one of largest elephant populations in Africa. Since subsistence agriculture is practiced near forest edges, problem of crop raiding by elephants and other animals is common. Countrywide questionnaire ascertained elephant crop raiding occurred in all provinces, was highest in three central provinces of Ogooue Maritime, Moyen-Ogooue and Ogooue-Ivindo. Of 132 cases of raiding investigated, 80% involved elephants only, 11% attributed to elephants combined with other species. Bananas appeared to be crop most susceptible to damage; elephants break the stem and eat inner core and young leaves. Maize tended to be trampled rather than eaten by elephants. Sweet manioc was eaten and bitter manioc more often trampled. It was not easy to estimate the number of animals involved, but the same individuals were implicated in a number of incidents: one elephant was implicated in 36 of 57 incidents. Present deterrent is control shooting, but since the shooting normally occurs well after the incident and the law requires that the elephant be shot within five kilometers of a village, the original culprit(s) may not be taken [ID-H/M&DR].
- 4050 EwcC LAIR, Richard C. (1988). Empty stables: southeast Asia's vanishing domesticated elephants. Food and Agriculture Organization, Bangkok, 235 pp.
- 4051 EcmC LAIR, Richard C. (1993). Marking or tagging elephants for individual identification. Gajah, 10:32-33. **Annotation:** Proposal for development of ear-tag program for captive Asian elephants in Asia [JLP].
- 4052 EcmC LAIR, Richard C. (1997). Gone astray: the care and management of the Asian elephant in domesticity. FAO Regional Office for Asia and the Pacific (RAP), Thailand, 300 pp. **Annotation:** Up-to-date reference for those involved with status and management of captive elephant populations in southeast Asia; see review by J. P. Dudley in this issue of "Elephant", and in "Oryx" (1999), Vol. 33(1):84 [SLS].

- 4053 BbgC LALAND, Stephanie. (1997). Peaceful kingdom: random acts of kindness by animals. Conari Press, Berkeley (California), 201 pp. **Annotation:** Elephants on pages 18 [altruism], 28-30 ["Alice" saves little girl], 33 [captures thief], 64-65 [tries to save rhino baby], 108-109 ["Big Sue" saves tightrope walker], 150 ["Tina" refused to enter her quarters after her handler, Robert Brockell, became sick, even after his voice was taped], 152 [covering baby with branches], 172-175 ["drawings"]. On page 181, Elke Riesterer, who uses "Tellington-Touch" on rhino, has used it successfully on elephants [JS].
- 4054 EcmC LAMBERT, Elizabeth. (1993). Elephants and interiors: the adventures of Clio Goldsmith and Mark Shand. Architectural Digest, December:146, 149, 151, 183.
- 4055 EcmC LAMBERT, W. David. (1989). The morphology and ecology of feeding in the shovel-tusked gomphotheres (Proboscidea, Gomphotheriidae, Amebelodontinae). Unpublished M.S. thesis. University of Florida.
- 4056 EcmC LAMBERT, W. David. (1990). Rediagnosis of the genus *Amebelodon* (Mammalia, Proboscidea, Gomphotheriidae), with a new subgenus and species, *Amebelodon (Konobelodon) britti*. Journal of Paleontology, 64(6):1032-1040.
- 4057 EcmC LAMBERT, W. David. (1992). The feeding habits of the shovel-tusked gomphotheres: evidence from tusk wear patterns. Paleobiology, 18(2):132-147.
- 4058 \*vhU LAMBERT, W. David. (1995). *Mammuthus* from the late Blancan Santa Fe 1B locality: the oldest record of *Mammuthus* in North America. Journal of Vertebrate Paleontology, Abstracts of Papers, Volume 15, Supplement to Number 3:40A.
- 4059 \*avU LAMBERT, W. David. (1996). The biogeography of the gomphotheriid proboscideans of North America. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 143-148. Oxford University Press, 472 pp.
- 4060 EcmC LAMBERT, W. David and SHOSHANI, Jeheskel (1998). Proboscidea. In Evolution of Tertiary mammals of North America, Volume 1: terrestrial carnivores, ungulates, and ungulatelike mammals (ed. Christine M. Janis, Kathleen M. Scott, and Louis L. Jacobs), pp. 606-621. Cambridge University Press, 691 pp. **Annotation:** Suggested classification and cladogram for mammutids, gomphotheres, elephantids, temporal ranges of North American Tertiary proboscideans [JS].
- 4061 LulC LAMPREY, Richard. (1995). The management of sport hunting in Tanzania. Swara, 18(2):10-15. **Annotation:** How tourist hunting, particularly of elephants, is conducted in Tanzania. Ways to improve management of hunting [E/ECM].
- 4062 EcmC LANDE, Russell, ARMBRUSTER, Peter, and FERNANDO, Prithiviraj. (1995). Population viability analysis of the African elephant, and population genetic studies of the Asian elephant. Abstracts, The Wildlife Society, Second Annual Conference, Portland, Oregon, USA, September 12-17, 1995, p. 73.
- 4063 BiqC LANDRES, Lisa. (1988). Death among captive elephants: behavioral observations and management considerations. In Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988, pp. 81-89. Jacksonville Zoological Park, Florida, 145 pp. **Annotation:** Behavioral observations, management considerations studies on behavioral changes observed when elephant groups encounter elephant carcass briefly reviewed. Burial behaviors, where surviving elephants pile dirt, branches, leaves on corpse. Bone carrying behaviors, where bones, tusks of dead elephants are carried for several days. How captive elephant management programs should be amended to include recognition and grieving period for surviving elephants [ID-H/M&DR].
- 4064 LqtC LANDUCCI, Gina, DOBRZELECKI, Laura, and KEEFE, Kirk. (1999). Painting as enrichment for Cheyenne Mountain Zoo's 0.1 protected contact African elephant. Animal Keepers' Forum, October:400-403. **Annotation:** Steps for training "Lucky" to "paint" in her stall while handlers are on other side of the bars [E/ECM].
- 4065 LivW LANDY, Susan L. (1989). CITES: banning the ivory trade — an attempt to save the African elephant from extinction. Florida International Law Journal, 5(1):111-122.
- 4066 BbpC LANGBAUER, Bill (William). (1991). The infrasonic communication of elephants. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 141-148. Burnet Park Zoo, Syracuse, 161 pp.
- 4067 LbwW LANGBAUER, William R., CHARIF, Russell A., PAYNE, Katharine Boynton, and MARTIN, Rowan B. (1991). Movements of African elephants as observed by radio telemetry [Abstract]. Paper 498 given at annual meeting of American Society of Zoologists, 27-30 December 1991 Atlanta, Georgia. American Zoologist, 31(5):98A.
- 4068 LebC LANGBAUER, William R., Jr., PAYNE, Katharine Boynton, CHARIF, Russell A., and THOMAS, Elizabeth M. (1989). Responses of captive African elephants to playback of low-frequency calls. Canadian Journal of Zoology, 67(10):2604-2607 [abstracts in English and French].
- 4069 LbaW LANGBAUER, William R., CHARIF, Russell A., PAYNE, Katharine Boynton, and MARTIN, Rowan B. (1991). Vocalizations of African elephants as recorded by radio telemetry [Abstracts]. Paper 499 given at annual meeting of American Society of Zoologists, 27-30 December 1991 Atlanta, Georgia. American Zoologist, 31(5):98A.
- 4070 LepC LANGBAUER, William R., Jr., PAYNE, Katharine Boynton, CHARIF, Russell A., RAPAPORT, Lisa, and OSBORN, Ferrel V. (1991). African elephants respond to distant playbacks of low-frequency conspecific calls. Journal of Experimental Biology, 157:35-46.
- 4071 UanC LANGER, P. (1988). The mammalian herbivore stomach. G. Fischer, Stuttgart, New York, 557 pp. **Annotation:** Contains little on Proboscidea [MPK].
- 4072 LbpW LANGMAN, V. A., ROBERTS, T. J., BLACK, J., MALOY, G. M. O., HEGLUND, N. C., WEBER, J.-M., KRAM, R., and TAYLOR, C. R. (1995). Moving cheaply: energetics of walking in the African elephant. Journal of Experimental Biology, 198(3):629-632. **Annotation:** Large animals have much better fuel economy than small ones, when they rest and when they run [E/ECM]. Locomotion, metabolic rate, allometry [MPK].
- 4073 LbcW LANTING, Frans. (1993). Okavango: Africa's last Eden. Chronicle Books, San Francisco, 168 pp. **Annotation:** Wetland in the Kalahari Desert. Largest gathering of elephants left in southern Africa collects there for water, coming 10,000 at a time [JLP].
- 4074 LapW LAROM, David Lee. (1996). Meteorological controls on the infrasonic communication of the African elephant (*Loxodonta africana*). D. Phil. thesis, University of Virginia, Charlottesville, Virginia, 124 pp.
- 4075 LpaB LAROM, David, GARSTANG, Michael, PAYNE, Katharine Boynton, RASPET, Richard, and LINDEQUE, Malan. (1997). The influence of surface atmospheric conditions on the range and area reached by animal vocalizations. The Journal of Experimental Biology, 200(3):421-431.

- Annotation:** Low-level vertical changes in temperature and wind exert powerful and predictable influences on area ensonified by animal vocalizations. Computer modeling of low-frequency sound propagation in measured atmospheric conditions predicts calls of savanna elephants at these frequencies can have ranges exceeding 10 km and calls will be highly directional in presence of wind shear. Method for estimating sound propagation during field studies presented [E/ECM]
- 4076 **LapW** LAROM, David Lee, GARSTANG, Michael, LINDEQUE, Malan, RASPET, Richard, ZUNCKEL, Mark, HONG, Yvonne, BRASSEL, Kevin, O'BEIRNE, Sean, and SOKOLIC, Frank. (1997). Meteorology and elephant infrasound at Etosha National Park, Namibia, Journal of the Acoustical Society of America, 101(3):1710-1717.
- 4077 **LcuW** LATEGAN, P. (1994). The E.S.P.U.—a force to reckon with. The Rhino & Elephant Journal, 9:25-26. **Annotation:** E.S.P.U. = Endangered Species Protection Unit [South Africa] [MPK].
- 4078 **\*gvU** LAUB, Richard S. (1990). The Hiscock site (western New York): recent developments of Pleistocene and early Holocene interest. Current Research in the Pleistocene, 7:116-118. **Annotation:** Discoveries at a rich *Mammuthus americanum* site from 1987 to 1990. Apparent gastrointestinal material from mastodon, including taxonomic identification, and C14 dates for a sample of this material and a mastodon bone from the site [RSL].
- 4079 **\*ahU** LAUB, Richard S. (1992). On disassembling an elephant: anatomical observations bearing on Paleoindian exploitation of Proboscidea. In Proboscidean and Paleoindian interactions (ed. John W. Fox, Calvin B. Smith, and Kenneth T. Wilkins), pp. 99-109. Baylor University Press, Waco (Texas). **Annotation:** Defleshing an Asian elephant and possible insights into opportunities and problems Paleoindians would have encountered in killing and butchering proboscideans [RSL].
- 4080 **\*avU** LAUB, Richard S. (1993). Positional and ordinal identification of the teeth of *Mammuthus americanum*. Current Research in the Pleistocene, 9:105-108. **Annotation:** System for determining dental order and anatomical position (left-right, upper-lower) of isolated teeth of American mastodon [RSL].
- 4081 **\*veU** LAUB, Richard S. (1994). The Pleistocene/Holocene transition in western New York State: fruits of interdisciplinary studies at the Hiscock Site. In Great Lakes archaeology and paleoecology: exploring interdisciplinary initiatives for the nineties (ed. Robert I. MacDonald), pp. 155-167. Quaternary Sciences Institute, University of Waterloo (Ontario). **Annotation:** Hiscock Site, including Pleistocene and Holocene components. Mastodon remains, including chronology, stratigraphic context, and associated faunal, floral and archaeological material [RSL].
- 4082 **\*ewU** LAUB, Richard S. (1995). The Hiscock Site (western New York): recent developments in the study of the late-Pleistocene component. Current Research in the Pleistocene, 12:26-29. **Annotation:** Summary of discoveries at site since 1990, including radiocarbon dates of several pieces of probable mastodon gastrointestinal material that are considerably younger than presumed extinction date of this species [RSL].
- 4083 **\*apU** LAUB, Richard S. (1996). The masticatory apparatus of the American mastodon (*Mammuthus americanum*). In Palaeoecology and palaeoenvironments of late Cenozoic mammals. Tributes to the career of C. S. (Rufus) Churcher (ed. K. M. Stewart and K. L. Seymour), pp. 375-405. University of Toronto Press, Toronto, 675 pp. **Annotation:** The masticatory muscles are reconstructed, and the workings of the jaw apparatus analyzed. "...dental wear patterns and positioning of the superficial masseter and the zygomatico-mandibularis muscles, indicate an evolutionarily primitive bucco-lingual movement of the mandible during mastication, in contrast with a derived propalinal (fore-aft) movement in the elephantids" [RSL].
- 4084 **\*evU** LAUB, Richard S., DUFORT, Catherine A., and CHRISTENSEN, Donna J. (1994). Possible mastodon gastrointestinal and fecal contents from the late Pleistocene of the Hiscock Site, western New York State. In Studies in stratigraphy and paleontology in honor of Donald W. Fisher (ed. E. Landing), pp. 135-148. New York State Museum Bulletin no. 481, 380 pp. **Annotation:** Apparent gastrointestinal material from *Mammuthus americanum* is recognized at the Hiscock Site, and identified as *Picea* or *Larix*. Pollen studies of the horizon suggest the former is more likely [RSL].
- 4085 **\*gvU** LAUB, Richard S., MILLER, Norton G., and STEADMAN, David W. (eds). (1988). Late Pleistocene and early Holocene paleoecology and archeology of the eastern Great Lakes region. Bulletin of the Buffalo Society of Natural Sciences, 33:1-316. **Annotation:** Incorporates interdisciplinary studies on the fauna, flora, paleoecology, geology, and archaeology of the late Pleistocene to early Holocene of the eastern Great Lakes region. Proboscideans included the American mastodon, *Mammuthus americanum*, and mammoths, *Mammuthus columbi* and *M. primigenius* [JS].
- 4086 **\*hyU** LAUB, Richard S., TOMENCHUK, John, and STORCK, Peter L. (1996). A dated mastodon bone artifact from the late Pleistocene of New York. Archaeology of Eastern North America, 24:1-17. **Annotation:** "A fragment of a large bone, evidently a rib of the American mastodon (*Mammuthus americanum*), displays features suggestive of having been culturally modified while in a 'fresh' condition. This object, from the Pleistocene horizon of the Hiscock site in western New York State, has been directly dated (AMS method) to 10,990±100 yr BP. If the specimen is correctly interpreted as having been shaped by humans, it is the first Clovis-age artifact from the mid-continent to be directly dated" [E/ECM].
- 4087 **\*gvU** LAUB, Richard S., DEREMER, M. F., DUFORT, Catherine A., and PARSONS, W. L. (1988). The Hiscock Site: a rich late Quaternary locality in western New York state. In Late Pleistocene and early Holocene paleoecology and archeology of the eastern Great Lakes region (ed. R. S. Laub, N. G. Miller, and D. W. Steadman), pp. 67-81. Bulletin of the Buffalo Society of Natural Sciences, 33:1-316. **Annotation:** Summarizes the interdisciplinary studies on the fauna, flora, paleoecology, and stratigraphy of this late Quaternary site (dated from 11,400-200 years before present), named after the late Charles Dibble Hiscock. All proboscideans found were American mastodon, *Mammuthus americanum* [RSL].
- 4088 **LiyW** LAURIE, Andrew. (1989). The ivory trade in China. In The ivory trade and the future of the African elephant (coord. Stephen Cobb), Vol. 2, Technical Reports, Section 3.11. The Ivory Trade Review Group, Oxford. **Annotation:** Used as medicine and for carvings and jewelry; alternative to ivory discussed [ID-H/M&DR].
- 4089 **\*hvU** LAURY, Robert L. (1990). Geologic history of the Mammoth Site and surrounding region, Hot Springs area, Fall River and Custer Counties, South Dakota: an overview. In Megafauna and man: discovery of America's heartland (ed. L. D. Agenbroad, J. I. Mead, and

- L. W. Nelson), pp. 13-21. The Mammoth Site of Hot Springs, South Dakota, Inc., Hot Springs, Scientific Papers, Volume 1, 149 pp.
- 4090 \*hwU LAURY, Robert L. (1994). Paleoenvironment of the Hot Springs Mammoth Site. In The Hot Springs Mammoth Site: a decade of field and laboratory research in paleontology, geology, and paleoecology (ed. L. D. Agenbroad and J. I. Mead), pp. 28-67. The Mammoth Site of South Dakota, Hot Springs, 457 pp.
- 4091 +ovB LAVERGNE, Anne, DOUZERY, Emmanuel, STICHLER, Todd, CATZEFLIS, François M., and SPRINGER, Mark S. (1996). Interordinal mammalian relationships: evidence for paenungulate monophyly is provided by complete mitochondrial 12S rRNA sequences. Molecular Phylogenetics and Evolution, 6(2):245-258.
- 4092 BcjW LAWLEY, L. (1991). Elephants: a battle for survival. Headline Book Publications, London, 128 pp. Also published by Mallard Press, New York, 128 pp. and 1994: The world of elephants. Michael Friedman Publishers Group, Fairfax, New York, 128 pp.
- 4093 LekW LAWS, Richard M. (1989). Development of research on large mammals in East Africa. Symposium of the Zoological Society of London, 61:267-298. **Annotation:** Population, culling, habitat alteration, Kenya, TNP, Uganda, QENP [MPK].
- 4094 BgcC LAWS, Richard M. (1992). Foreword. In Elephants: majestic Creatures of the Wild (ed. J. Shoshani), pp. 10-11. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** Culling, food, poaching, ivory, parks, Kenya, Uganda, TNP [MPK].
- 4095 BbtC LEACH, Ellen. (1991). Some behavioral methods for reducing undesirable behaviors. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 114-120. Burnet Park Zoo, Syracuse, 161 pp.
- 4096 BtbC LEACH, Ellen. (1992). Tips for trainers: Pavlov revisited. The Elephant Managers Association Newsletter, 3(3):27-28.
- 4097 BbqC LEACH, Ellen. (1995). Behavioral enrichment or deprivation — what is happening with captive elephants? Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 12 unnumbered pages.
- 4098 \*vjU LEACH, Jeff D. *et al.* (1999). The mammoths demise. Discovering Archaeology, 1(5):30-37, 39.
- 4099 LcjW LEADER-WILLIAMS, Nigel. (1990). Black rhinos and elephants: lessons for conservation funding. Oryx, 24(1):23-29. **Annotation:** Rates of decline of black rhinos and African elephants related directly to conservation effort and spending. The Luangwa Valley National Park, Zambia, case study, demonstrates principle that adequate resources need to be invested to achieve objectives in conservation. However, most developing countries do not have the resources to protect large areas and economically valuable species from illegal exploitation. If local extinctions are to be avoided, funded conservation schemes must be concentrated in small parts of large reserves [ID-H/M&DR].
- 4100 LcuW LEADER-WILLIAMS, Nigel. (1993). The cost of conserving elephants. Pachyderm, 17:30-34. **Annotation:** African elephants, to varying degrees in different range states, live both within and outside protected areas. In either case, elephants may conflict with man. Range states have to expend funds to protect elephants. This questionnaire based survey found as a general rule in 1981 it was necessary to spend around US \$215 per sq. km of protected area to prevent the decline of elephants due to severe commercial poaching for ivory. In 1989, taking inflation into account, US \$340 was required to maintain the same standard. Ensuring the success of law enforcement efforts is probably the most important management objective for future conservation [ID-H/M&DR].
- 4101 LkcW LEADER-WILLIAMS, Nigel. (1994). Sustainable use of elephants with a focus on East Africa. In The African elephant in the context of CITES 19-23 September, 1994 Kasane, Botswana. Part B. Background Papers. Department of the Environment, London, United Kingdom., pp. 59-70. **Annotation:** Types of use to which elephants are currently put in East Africa and the extent to which listing of African elephant in Appendix 1 of CITES has affected options used to manage and sustainably utilize elephants in the region. Tourism, sport and trophy hunting and cropping or culling [ID-H/M&DR].
- 4102 LwmW LEADER-WILLIAMS, Nigel. (1996). African elephant numbers - a new approach. Oryx, 30(2):87-88. **Annotation:** "The African Elephant Database (AED) 1995 is the hard copy of a comprehensive, and totally redigitized, GIS database that contains data on the range and latest estimates of elephant numbers. The new database supersedes the AED 1992 (Douglas-Hamilton *et al.*, 1992) and introduces a new system of categorizing data to better reflect variety in quality and in method of collection" [E/ECM]. Reviews the AED's 1995 report noting that the report presents national data and suggests a continental population of 286,000 definite, 101,000 probable, 156,000 possible and a further 36,000 speculative and notes that elephants occupy about 5.8 million sq. km as compared to their former range of 30 million [ID-H/M&DR].
- 4103 LcjW LEADER-WILLIAMS, Nigel. (1996). Development of national policy for elephant conservation in Tanzania. Pachyderm, 22:57-58.
- 4104 LeuW LEADER-WILLIAMS, Nigel. (1996). Monitoring law enforcement and illegal activities. In Studying elephants (ed. K. Kangwana), 148-161. African Wildlife Foundation, Nairobi, Kenya, 178 pp. **Annotation:** Need to establish a system to monitor success of law enforcement activities in African protected areas to ensure that investments are cost effective [ID-H/M&DR].
- 4105 LceW LEADER-WILLIAMS, Nigel and ALBON, S. D. (1988). Allocation of resources for conservation. Nature, 336(6199):533- 535. **Annotation:** Ecological aspects suggest conservation areas be as large as possible, but reality of conservation management, particularly for protection of both habitat and species, suggest other considerations must be addressed. Luangwa Valley supporting both elephants and rhinos is example of need to consider monitoring and enforcement [ID-H/M&DR].
- 4106 LucW LEADER-WILLIAMS, Nigel and MILNER-GULLAND, E. J. (1993). Policies for the enforcement of wildlife laws: the balance between detection and penalties in Luangwa Valley, Zambia. Conservation Biology, 7(3). 611-617. **Annotation:** Models have shown levels of law enforcement in the Luangwa Valley in 1980s were inadequate to prevent elephant and black rhino poaching. Theory suggests deterrent effect of an increase in detection rate will be larger than similar increase in penalty. The most effective economic penalty would be a variable fine related to number of illegal trophies harvested, but this may be hard to legislate. Wildlife managers conserving elephants and rhinos should focus on improving detection rates rather than on requesting severe penalties without concurrent improvements in detection [ID-H/M&DR].
- 4107 LucW LEADER-WILLIAMS, Nigel, ALBON, S. D., and BERRY, P. S. M. (1990). Illegal exploitation of black rhinoceros and elephant populations - patterns of decline. Law enforcement and patrol effort in Luangwa Valley, Zambia. Journal of Applied Ecology, 27(3):1055-1087. **Annotation:** Sightings and captures by law enforcement patrols used to monitor changes in rhino and elephant number during 1947-69

- and 1979-85, their motivation and success in capturing poachers in 1979-85, and distribution of poaching in relation to patrol efforts. Elephants increased at rate of +0.06 from 1947 to 1969 and decreased at rate of -0.63 and rhinos at -0.12 during 1979-85 due to poaching. Patrols found that offenders involved in light poaching originated from Luangwa Valley; organized gangs came from outside. Poaching showed consistent trends across years within different areas, but most trends were complex rather than exponential across time. Patrols were effective but not adequate [ID-H/M&DR].
- 4108 \*jhU LEAKEY, Meave D. (1987). Animal prints and trails. In *Laetoli: a Pliocene site in northern Tanzania* (ed. M. D. Leakey and J. M. Harris), pp. 451-489. Clarendon, Oxford. **Annotation:** See Reference no. 2856 [MPK].
- 4109 LiuW LEAKEY, Richard [E.]. (1991). Introduction. In *Elephants: the deciding decade* (ed. R. Orenstein), pp. 19-23. Key Porter Books, Toronto; Sierra Club Books, San Francisco, 160 pp. Revised, updated reprint in 1997.
- 4110 LicW LEAKEY, Richard E. (1992). A wildlife director's perspective. In *Elephants: majestic creatures of the wild* (consult. ed., J. Shoshani), pp. 214-217. Rodale Press, Emmaus, Pennsylvania, 240 pp. **Annotation:** Ivory-poaching, especially in Kenya's national parks during 1970s and 1980s, and effects of international legislation (CITES) on ivory-trade [MPK].
- 4111 LuiW LEAKEY, Richard E. (1993). A perspective from Kenya: elephants today and tomorrow. *Wildlife Conservation*, 96(2):58-59, 89. **Annotation:** Campaign for public support for ivory ban and its success on lowering ivory prices and poaching. Argues against resuming ivory trade because smuggling, corruption and poor pay, which allow poaching to flourish, undercut controls should trade resume. Looks to research on birth control measures rather than culling to control population, categorizing elephants, with dolphins and whales, as intelligent wildlife that should command respect and protection [ID-H/M&DR].
- 4112 LcwW LEAN, M. (compiler). [1990]. *Saving the African elephant*. World Wildlife Fund, Gland (Switzerland), 24 pp. **Annotation:** Funded by The David Shepherd Conservation Foundation; intended to act as information to supporters of WWF [ID-H/M&DR].
- 4113 LcjW LEDGER, John. (1992). Elephants for Africa in Nairobi. *Endangered Wildlife Trust*, March:4-7.
- 4114 LcwW LEE, D. B. and LANTING, F. (1990). Okavango Delta: old Africa's last refuge. *National Geographic*, 178(6):38-69.
- 4115 LcwW LEE, G. (general ed.) (1993). *Endangered wildlife of the world, Vol. 3: Cur-Fly*. Marshall Cavendish, New York. **Annotation:** Elephants, conservation on pp. 397-404 [MPK].
- 4116 LrbW LEE, Phyllis C. (1987). Allomothering among African elephants. *Animal Behavior*, 35(1):278-291. **Annotation:** Study conducted in ANP. Elephant calves are born into stable family units, with variety of individuals with whom they can interact. In population of elephants with known lineages and calf ages, interactions between calves and other elephants found to be frequent and consisted of either relaxed, friendly greetings and investigations of others or assistance when calves were threatened or distressed. Juvenile and adolescent females comforted, assisted and protected calves; these females were defined as allomothers. Allomothers tended to be family members but were not always siblings. Siblings maintained close proximity to calves, while calf defense also involved less closely related family members. Early establishment of close caretaking relationships within families may enhance family stability through time. Suckling of calves by non-mothers extremely rare, and unlikely to enhance the nutritional intake of calves [ID-H/M&DR]. See Reference no. 4803 [MPK].
- 4117 LrbW LEE, Phyllis C. (1989). Family structure, communal care and female reproductive effort. In *Comparative socioecology: the behavioral ecology of humans and other mammals* (ed. V. Standen and R. A. Foley), pp. 323-340. Blackwell, Oxford. (Spec. Publ. no. 8 of the British Ecological Society).
- 4118 LbrW LEE, Phyllis C. (1991). Physical and social development among free-ranging African elephants. In *Proceedings of The Fifth Elephant Workshop, hosted by Windsor Safari Park, Windsor, United Kingdom, 20 September 1991*, pp. 32-34 + 1 table. **Annotation:** Observation of 750 elephants in ANP, describes physical and social development of elephant calves, development of sex differences in social behavior and differential treatment of calves by mothers as a function of their sex [ID-H/M&DR].
- 4119 BrbW LEE, Phyllis C. (1991). Reproduction. In *The illustrated encyclopedia of elephants* (consult. ed. S. Keith Eltringham), pp. 64-77. Crescent Books, New York, 188 pp. **Annotation:** Behavior, ethology, parenting, estrus, gestation, seasonality, musth. Most text refers to African elephants [MPK].
- 4120 BjbW LEE, Phyllis [C.]. (1991). Social life. In *The illustrated encyclopedia of elephants* (consult. ed. S. Keith Eltringham), pp. 48-63. Crescent Books, New York, 188 pp. **Annotation:** Behavior, ethology, parenting, hearing. Most text refers to African elephants [MPK].
- 4121 LbxW LEE, Phyllis C. (1994). Social structure and evolution. In *Behaviour and evolution* (ed. P. J. B. Slater and T. R. Halliday), pp. 266-303. Cambridge University Press, 358 pp.
- 4122 LbjW LEE, Phyllis C. (1996). Studying the behaviour of elephants. In *Studying elephants* (ed. K. Kangwana), pp. 98-110. African Wildlife Foundation, Nairobi, Kenya, 178 pp. **Annotation:** Behavior studies can examine a number of aspects such as ranging patterns, feeding or foraging patterns, social dynamics, mating, infant care and communication [ID-H/M&DR].
- 4123 LmaW LEE, Phyllis C. and MOSS, Cynthia J. (1995). Statural growth in known-age African elephants (*Loxodonta africana*). *Journal of Zoology, London*, 236(1):29-41. **Annotation:** Shoulder height of 224 females and 170 males, and hind foot lengths of 236 females and 217 known-age African elephants (ANP) were measured and growth curves constructed for each measure of size. A linear relationship between foot length and shoulder height was confirmed in simultaneous measures of 97 males and 110 females. Growth curves demonstrated typical sexual dimorphism in both foot length and shoulder height, with males growing more rapidly. Size dimorphism in foot length and shoulder height becomes marked by the age of 10, with males on average being 60-70 cm taller than females at 65 years. Variance in growth is slightly greater in females and it is proposed that female growth after puberty is affected by a trade-off between growth and reproduction [ID-H/M&DR].
- 4124 BqdC LEEDS, D. (1995). Footcare. *Journal of the Elephant Managers Association*, 6(2):31-33.
- 4125 LgjW LEESON, Tom and LEESON, Pat. (1999). Portrait of a giant. *International Wildlife*, 29(5):12-21. **Annotation:** Excerpts from books by Iain and Oria Douglas-Hamilton ("Among the elephants"), Cynthia Moss ("Elephant memories"), Joyce Poole ("Elephants"; "Coming of age with the elephants"), Katharine Payne ("Silent Thunder"), Delia and Mark Owens ("The eye of the elephant"), and Stewart K. Eltringham ("Elephants"), with photographs by Tom and Pat Leeson. Estimate of height to which the elephant shown on page 19

- reached is 9.5 meters {about 10 yards and one foot; based on measurements taken for "Ahmed", see Elephant 2(3):19, and other sources} [ECM].
- 4126 \*veU LEE-THORP, J. A., SEALY, J. C., and VAN DER MERWE, N. J. (1989). Stable carbon isotope ratio differences between bone collagen and bone apatite, and their relationship to diet. Journal of Archaeological Science, 16:585-599.
- 4127 \*vaU LEHMANN, U. And KRAUS, O. (1994). Outline of a phylogenetic system of the "mastodonts" (Mammalia, Proboscidea). Verhandlung des Naturwissenschaftlichen Vereins in Hamburg, (NF) 34:135-76.
- 4128 BqzC LEHNHARDT, John. (1991). Elephant handling - a problem of risk management and resource allocation. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 43-49. Burnet Park Zoo, Syracuse, 161 pp.
- 4129 BnqC LEHNHARDT, John. (1992). A nutritious diet for a captive elephant. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), p. 190. Rodale Press, Emmaus (Pennsylvania), 240 pp.; Simon & Schuster, London.
- 4130 EbtC LEHNHARDT, John. (1994). Working elephants in Sri Lanka. The Elephant Managers Association Newsletter, 5(2):24-26. **Annotation:** Attacking-human, reproduction, training [MPK].
- 4131 BrqC LEHNHARDT, John. (1995). Wildlife conservation in zoos. Swara, 18(6):14. **Annotation:** Zoos and wildlife managers are working together to solve problems and exchange ideas on technology. An example of zoo-developed technology aiding wild animals population management is underway in the Sweetwaters Rhino Sanctuary on Ol Pejeta ranch in Kenya. A series of contraceptive injections developed on other species in zoo settings is being tried on five female elephants to see if it can effectively control the rate of reproduction [ECM; p. 14]. See Reference nos. 2963, 2995, 4777, 4786, 5098, 5527 [MPK].
- 4132 EtqC LEHNHARDT, John. (1995). Working elephants in Sri Lanka and Myanmar. Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 6 unnumbered pages.
- 4133 LcjW LEITH, Brian. (1995). Whose game is it anyway? BBC Wildlife, 13(8):64-68. **Annotation:** Author sees a bright future for animals of Africa, but only if animals are given back to African people and people are allowed to put them to use [E/ECM]
- 4134 LiuW LEMONICK, Michael D. (1997). The ivory wars. Time, 149(24):64-65. **Annotation:** "After a seven-year ban, three African nations want to sell tusks. Will the rest of the world allow it?" [E/ECM].
- 4135 LgjW LEMONICK, Michael D. (1997). Young, single and out of control. Time [13 October, 150(15)]:68. **Annotation:** Translocation, parenting, interspecific-relations, social-relations, musth, culling, KNP, PNP, HGR, UGR [MPK].
- 4136 \*naU LEPPER, B. T., FROLKING, T. A., FISHER, Daniel C., GOLDSTEIN, G., SANGER, J. E., WYMER, D. A., and OGDEN, J. G., III (1991). Intestinal contents of a late Pleistocene mastodont from midcontinental North America. Quaternary Research, 36(1):120-125.
- 4137 LijW LE SERREC, Gwenola. (1989). The ivory trade in France. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 3.4. The Ivory Trade Review Group, Oxford. **Annotation:** Present trade situation in France noting few major importers and exporters and their affiliations with other countries [ID-H/M&DR].
- 4138 BbqC LESSOW, Denise E. and CHAMBLISS, Amanda. (1996). Public experiences with elephants at zoos and wild animal parks: a collaborative study. Journal of the Elephant Managers Association, 7(12):19-20.
- 4139 \*vaU LEUCI, Giuseppe and SCORZIELLO, Raffaele. (1993). Il *Mammuthus meridionalis* (Nesti) di contrada "Tratturo" Giuliano Teatino (Chieti). Bollettino del Museo regione di Scienze Naturali, Torino, 11(2):387-406.
- 4140 LwjW LEUTHOLD, W. (1996). Recovery of woody vegetation in Tsavo National Park, Kenya, 1970-94. African Journal of Ecology, 34(1):101-112. **Annotation:** Photos from fixed locations during long dry season in 1970 and 1994 document development of woody vegetation under changing ecological conditions over the 25 year period. Original vegetation was heavily influenced by both elephant and fire during the 1960s and 1970s. As a result of large scale poaching during the 1980s, the elephant population has decreased substantially. Presumably, as a result, trees and shrubs reappeared in large numbers at majority of locations sampled. Influence of fire in impeding regeneration of woody vegetation documented locally [ID-H/M&DR].
- 4141 LvxW LEVY, Sharon. (1999). Geneticists go wild: fur, feathers, feces, and the future of wildlife research. BioScience, 49(1):5-8. **Annotation:** Sam Wasser is one of several researchers working to map genetic variation among African elephants using DNA salvaged from dung. Wasser hopes that a map of gene frequencies will enable scientists and law enforcement officers to identify poached versus legally harvested elephant ivory [E/ECM].
- 4142 BiuW LEWIN, Roger. (1989). Global ban sought on ivory trade. Science, 244:1117-1224. **Annotation:** "The Convention on International Trade in Endangered Species seems set at its October meeting in Switzerland to list elephants as officially endangered" [E/ECM].
- 4143 BioB LEWIN, Roger. (1989). Ivory signatures trace the origin of tusks. New Scientist, 124(1687):34.
- 4144 LwcW LEWIS, Dale M. (1987). Elephant response to early burning in mopane woodland, Zambia. South African Journal of Wildlife Research, 17(2):33-40. **Annotation:** Experimental early burning carried out for two consecutive years to study elephant response to dry season manipulation of grass forage in mopane woodland in Luangwa Valley. Results suggest elephant range influenced in dry season by grass cover availability and browse intake was reduced where grass forage was burned out, but forage utilization increased in surrounding unburned areas. Early burning in mopane woodland may be a useful management tool to reduce browse utilization by elephants in this woodland [ID-H/M&DR].
- 4145 LnwW LEWIS, Dale M. (1987). Fruiting patterns, seed germination, and distribution of *Sclerocarya caffra* in an elephant-inhabited woodland. Biotropica, 19(1):50-56. **Annotation:** *Loxodonta africana*, food, seed dispersal, ecology, habitat-alteration, Luangwa, Zambia. See Reference no. 4156 [MPK].
- 4146 LucW LEWIS, Dale M. (1989). Zambia's pragmatic conservation programme. Pachyderm, 12:24-26. **Annotation:** Outlines the development of the anti-poaching village scout program and the administration of the game management areas through the Administration Management Design (ADMAD) program [ID-H/M&DR].
- 4147 LwjW LEWIS, Dale M. (1991). Observations of tree growth, woodland structure and elephant damage on *Colophospermum mopane* in Luangwa Valley, Zambia. African Journal of Ecology, 29(3):207-221. **Annotation:** Six samples of tagged *Colophospermum mopane* were moni-

- tored for 5 years in locations of varying soil types but similar elephant densities. Results suggest that the influence of soils and elephants on *C. mopane* alter successional transitions from grassland to woodland. Soils that promote coppicing of *C. mopane* yield less stable woodlands when associated with elephants than soils promoting woodlands with large bolus, non-coppicing trees. Implications for forest/elephant management [ID-H/M&DR].
- 4148 LcbW LEWIS, Dale M. and FRAMPTON, David. (1990). Lesson under a mango tree. *International Wildlife*, 20(4):40-43. **Annotation:** Lewis' hypothesis was that elephants congregated where gunshots, grass-burning, and other human-related disturbances were least intense. Hypothesis was tested by allowing elephants to forage in these areas outside national parks then letting local Zambians get involved in these projects. Text by Lewis, color illustrations with African tribal motifs by Frampton [E/ECM].
- 4149 LcwW LEWIS, Dale M., KAWECHE, Gilson B., and NWENYA, Ackim. (1990). Wildlife conservation outside protected areas — lessons from an experiment in Zambia. *Conservation Biology*, 4(1):171-180.
- 4150 LhcW LEWIS, Dale A. (1989) A promise worth keeping. *Animal Kingdom*, 92(3):58-63. **Annotation:** Elephants in Zambia [ECM].
- 4151 BdqC LEWIS, John C. M. (1991). Anaesthesia in captive elephants. In *Proceedings of The Fifth Elephant Workshop, hosted by Windsor Safari Park, Windsor, United Kingdom, 20 September 1991*, pp. 22-30. **Annotation:** Intended to provide broad overview, describing range of anesthetic techniques available, conditions under which such procedures should be carried out and some of the potential hazards that may arise [E/ECM].
- 4152 EqtC LEWIS, R. (1991). The experience with "Babe": through the eyes of a pathologist. *Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991*, p. 126. Burnet Park Zoo, Syracuse, 161 pp.
- 4153 \*wvU LI, Daliang. (1988). A study of Fuyang "*namadicus*" from the late Pleistocene. Unpublished Master thesis, China University of Geosciences, Beijing, China. 52 pages + 13 pls [in Chinese with English abstract].
- 4154 LcwW LIBERIA, FORESTRY DEVELOPMENT AUTHORITY. (1991). *Elephant conservation plan for Liberia*. Forestry Development Authority, Monrovia, 47 pp.
- 4155 LbrW LIDDELL, Marlane. (1997). An orphanage for some big babies. *Smithsonian*, 27(12):54-59. **Annotation:** Photographs by Jim Leachman. "Daphne Sheldrick has turned her Nairobi home into a nursery and rehabilitation center for infant elephants who have lost their families" [E/ECM, p. 54].
- 4156 LneW LIEBERMAN, Diane, LIEBERMAN, Milton, and MARTIN, Claude. (1987). Notes on seeds in elephant dung from Bia National Park, Ghana. *Biotropica*, 19(4):365-369. **Annotation:** See Reference no. 4145 [JLP].
- 4157 LucW LIEBERMAN, Susan S. (1988). The ivory trade: death knell for Africa's elephants. *The Humane Society News*, 33(2):16-19.
- 4158 EfqU LIGHTMAN, Diana. (1987). The elephant god: obstacle into opportunity. *Hasti Newsletter*, 3:2. **Annotation:** Interpretations of the name for the Hindu god "Ganesha" [JLP].
- 4159 BiuW LIGHTMAN, Diana. (1988). Glass houses and ivory towers. *Hasti Newsletter*, 8:2, 6. **Annotation:** Arguments for Americans to give up ivory jewelry and support African village uplift rather than military expenditures [E/JLP].
- 4160 LtqC LIGHTMAN, Diana. (1988). A home for Sonny. *Hasti Newsletter*, 7:2-3. **Annotation:** Account of efforts to find a lifetime home for a male African elephant in Clovis, New Mexico, USA. See Reference nos. 5821, and 5179 for the final story of Sonny's move to Popcorn Park Zoo in New Jersey, USA [JLP].
- 4161 LapB LILLYWHITE, H. B. and STEIN, B. R. (1987). Surface sculpturing and water retention of elephant skin. *Journal of Zoology*, 211(4):727-734. **Annotation:** "Retention of water by casts of integument is 4.5-10 times greater than that of flat surfaces and is greater in African elephants than in Asian elephants. Both species lack sebum and sweat glands and require regular wetting of their skin" [E/SLS]. The integument of elephants is highly sculptured with wrinkles and crevices arranged in prominent geometric patterns, more so in the African than in the Asian elephants. The highly sculptured morphology functions to enhance retention of surface moisture during periodic wallowing and could have great physiological significance during drought periods when intense heat and solar radiation coincide with limited availability of water [ID-H/M&DR].
- 4162 LmcW LIMOGES, Benoit. (1989). L'elephant d'Afrique: Resultats de l'inventaire faunique au niveau national et propositions de modifications a la loi sur la chasse. *IUCN/CECI, Gland*. Republica da Guine-Bissau, pp. 40-42.
- 4163 BgrW LINCOLN, G. A. (1994). Teeth, horn and antlers: the weapons of sex. In *The difference between the sexes* (ed. R. V. Short and E. Balaban), pages not provided. Cambridge University Press, Cambridge, 496 pp.
- 4164 EraC LINCOLN, G. A. and RATNASOORIYA, W. D. (1996). Testosterone secretion, musth behaviour and social dominance in captive male Asian elephants living near the equator. *Journal of Reproduction and Fertility*, 108:107-113.
- 4165 LckW LINDEQUE, Malan. (1988). Population dynamics of elephants in Etosha National Park, South West Africa/Namibia. Ph.D. dissertation, University of Stellenbosch (South Africa), 285 pp. **Annotation:** Elephant numbers in ENP increased steadily since recolonization of park by elephants in early 1950s. Period of rapid increase occurred from 1979 to 1983 coinciding with the recent trans African drought. The population appeared to have erupted and was culled twice to halt further increases and prevent irreversible changes in plant species diversity due to an overpopulation. Study done to determine fecundity and mortality and rate of increase in the elephant population in order to manage the population by artificial control in numbers. Evidence from reproductive parameters, age structures and mortality derived from data from culled elephants in 1983 and 1985 suggest that changes in abundance were not due to explosive breeding or mortalities before and after the drought but to migration and emigration. ENP population seems part of general Kaokoveld, Ovambo and Kavango population [ID-H/M&DR].
- 4166 LwiW LINDEQUE, Malan. (1991). Age structure of the elephant population in the Etosha National Park, Namibia. *Madoqua*, 18(1):27-32. **Annotation:** The age structure of the elephant population in ENP was determined using aerial photogrammetry and ground classification of herds into age groups. Age distributions derived from photogrammetry differed significantly between years in 1983-1987. Age structures derived from either method used, nevertheless, did not differ drastically from year to year, indicating that age specific mortality and survival rates remained similar from 1977-1988. A doubling of population size from 1974 to 1983 did not result from any change in fecundity, as noticeable changes in the age structure did not occur. The similarity in age structures over this period suggests

- that population increases were due to immigration [ID-H/M&DR].
- 4167 **LaiW** LINDEQUE, Malan. (1991). Dentition and age estimation of elephants in the Etosha National Park, Namibia. *Madoqua*, 18(1):17-25. **Annotation:** Variation in number of laminae per molar, and in number and position of foramina mentale in mandibles from elephants in the ENP rules out the use of referenced laminary counts for age estimation purposes. Premature loss of anterior molar fragments occurred in 18% of mandibles and is additional source of confusion and subjectivity in identification of age classes. Classification of mandibles according to degree of eruption and attrition of anterior and posterior molars independently, result in different age distributions, and indicates that loss of molar fragments is more irregular than eruption sequence of molars. Anomalous peaks in age distribution corresponding to loss of molars were less distinctive in samples from the ENP, than in all other populations studied. The age estimation method of Laws (1966, 1967) could not be shown to be inaccurate and age distributions based on the original schedule and recent revisions were not significantly different [ID-H/M&DR].
- 4168 **LcwW** LINDEQUE, Malan. (1991). The Kaokoveld elephant. *Rossing*, May:14-17. **Annotation:** Background of population loss historically, recent development of conservation efforts for elephants in northern Namibia [ID-H/M&DR].
- 4169 **LcjW** LINDEQUE, Malan. (1995). Conservation and management of elephants in Namibia. *Pachyderm*, 19:49-53. **Annotation:** Namibia's elephant population ranges over large section of northern part of the country, numbers over 7,000 animals, significant change from almost extinction earlier this century. Most elephants are outside protected areas and their extensive migratory range makes it difficult to monitor land use conflicts. Management strategies based on sustainable use [ID-H/M&DR].
- 4170 **LcjW** LINDEQUE, Malan. (1996). Conservation and management of elephants in Namibia. In *Namibia environment*. Ministry of Environment and Tourism, Windhoek, pp. 145-150.
- 4171 **LewW** LINDEQUE, Malan and LINDEQUE, P. M. (1991). Satellite tracking of elephants in northwestern Namibia. *African Journal of Ecology*, 29(3):196-206. **Annotation:** Satellite tracking is a valuable tool despite technical problems. Two out of ten satellite transmitters failed within two months of deployment, but average of one location per collar transmitter obtained every 3-4 days for the period October 1987 to May 1988. This wet season study found seasonal home ranges larger than recorded elsewhere varying between 5,800 to 8,700 sq. km [ID-H/M&DR].
- 4172 **LnwW** LINDEQUE, Malan and SCHEEPERS, J. L. (1992). Use of *Datura innoxia* by ungulates in the Hoanib River, Namibia. *South African Journal of Wildlife Research*, 22(2):45-48. **Annotation:** Use of alien plants in floodplain of Hoanib River. Elephants browsed *Ricinus communis*, but no evidence in dung analysis of use of toxic *Datura innoxia* that causes nervous disorders in other ungulates [ID-H/M&DR].
- 4173 **LpeB** LINDEQUE, Malan and VAN JAARSVELD, A. S. (1993). Post-natal growth of elephants *Loxodonta africana* in Etosha National Park, Namibia. *Journal of Zoology, London*, 229(2):319-330. **Annotation:** Post-natal growth in African elephant described using three alternative mathematical models and two age schedules. Von Bertalanffy, Gompertz and Logistic equations all provided adequate models but varied in estimations. It appears males continue to grow throughout their lifespan, while females reach asymptotic size in 35-40 years. No evidence of differences in growth rate of males or females up to 10 years. Growth rates of captive animals differ substantially from wild populations so may not be adequate references for age estimation [ID-H/M&DR].
- 4174 **LceW** LINDEQUE, Malan, RIHOY, L., and HUTTON, Jon. (1996). Potential impact of the US Endangered Species Act on elephant management and conservation. *Pachyderm*, 22:66.
- 4175 **LedW** LINDEQUE, P. M. and TURNBULL, P. C. B. (1994). Ecology and epidemiology of anthrax in the Etosha National Park, Namibia. *Onderstepoort Journal of Veterinary Research*, 61(1):71-83.
- 4176 **\*vwU** LINDSAY, E. H., FAHLBUSCH, V., and MEIN, P. (eds). (1990). *European Neogene mammal chronology*. Plenum Press, New York [copyright date, 1989], 658 pp.
- 4177 **LcwW** LINDSAY, Keith. (1990). Elephant/habitat interactions. In *The future of Botswana's elephants*. Proceedings of a workshop organised by The Kalahari Conservation Society in conjunction with The Department of Wildlife and National Parks. 10 November 1990 (ed. P. Hancock), pp. 19-23. Gaborone, Botswana, Kalahari Conservation Society, 96 pp. **Annotation:** General elephant habitat interactions between herbivores and vegetation. Relationship of elephants and woodland in northern Botswana [ID-H/M&DR].
- 4178 **LbnW** LINDSAY, Keith. (1991). Food intake rates and habitat selection of elephants in Amboseli, Kenya. In *African wildlife: Research and management*. Proceedings of an international symposium (ed. F. I. B. Kanyanja and E. L. Edroma), pp. 88-92, Kampala, Uganda, 1986, Proceedings, Paris, ICSU. **Annotation:** Behavior of adult female elephant feeding on grass on two habitat types, woodland and swamp edge. Rate of feeding and dry matter intake estimated with measurements of standing herb layer biomass in wet and dry seasons. Nutrient intake calculated in different seasons. Qualitative model of habitat and diet based on foraging profitability proposed, and is consistent with shifting habitat patterns in surveys of Amboseli basin [ID-H/M&DR].
- 4179 **LceW** LINDSAY, Keith. (1993). Elephants and habitats: the need for clear objectives. *Pachyderm*, 16:34-40. Proceedings of the African Elephant Specialist Group meeting, Victoria Falls, Zimbabwe, Nov. 17th-22nd 1993: Plenary paper three. **Annotation:** In all places where elephants are managed, authorities are concerned over elephant impact on vegetation and risk of irreversible habitat change. But management objectives have not been clearly defined, or, if so, their basis not entirely logical. Ecological processes which move the system from one state to another and requirements of plant and animal species that are affected by elephant-tree interaction, are key aspects [ID-H/M&DR].
- 4180 **LcwW** LINDSAY, Keith. (1996). Studying elephant-habitat interactions. In *Studying elephants* (ed. K. Kangwana), pp. 90-97. African Wildlife Foundation, Nairobi, Kenya, 178 pp. **Annotation:** Elephant-habitat interactions include elephants' population dynamics, density, distribution and diet selection, and population dynamics and responses to environmental stress of the plant communities. Focuses on measurement of plant responses to elephant herbivory the most common question and concern of wildfire managers with respect to interaction between this species and their habitats [ID-H/M&DR].
- 4181 **\*yvU** LIUBINE, Vassily P. (1999). Variability of mammoth images in Paleolithic art. *Deinsea*, 6:43-53. **Annotation:** See Reference no. 3720 for details about "Deinsea 6" [ECM/JS].
- 4182 **EqbC** LIPPMAN, Harold E. (2000). Bolivar: "killer" elephant or abused pachyderm? *Elephant*, 2(4):52-55. **Annotation:** "Bolivar", a male Asian



- elephant, lived in Philadelphia Zoo, 1888-1908. Killed two men, one of whom offered him a lighted cigar, which badly burned his trunk. Kept in confinement, and died from arthritis, cardiac, hepatic and splenic lesions. Author hypothesizes that isolation led him to grind his teeth, and destroy the joint between mandible and cranium [E/ECM].
- 4183 LcjW LISTER, Adrian M. (1988). Review of "Elephant memories: thirteen years in the life of an elephant family" by Cynthia Moss, published 1988 by Elm Tree Books, London, and by William Morrow, New York, 336 pp. *Nature*, 334(6/82):480. **Annotation:** "Cynthia Moss has devoted 15 years to a study of the elephants in ANP... she has come to know each of the 600... as individuals... Africa's elephants could have no more dedicated or persuasive champion than Cynthia Moss." See Reference no. 2340 [ECM].
- 4184 \*apU LISTER, Adrian M. (1989). Pelvic sexing and skeletal maturation in the mammoth. *Abstracts of Papers and Posters Fifth International Theriological Congress, Rome, 22-29 August 1989*, Volume I:152.
- 4185 +evB LISTER, Adrian M. (1989). Proboscidean evolution. *Trends in Ecology & Evolution*, 4(12):362-363.
- 4186 \*vwU LISTER, Adrian M. (1991). Late Glacial mammoths in Britain. In *The Late Glacial in north-west Europe* (ed. N. Barton, A. J. Roberts, and D. A. Roe), pp. 51-59. Research Report 77, Council for British Archaeology, London.
- 4187 \*vwU LISTER, Adrian M. (1992). Mammalian fossils and Quaternary biostratigraphy. *Quaternary Science Reviews*, 11:329-344.
- 4188 \*vaU LISTER, Adrian M. (1993). The Conover mammoth site: excavation and research 1986-93. *Cranium*, 10(1):61-67.
- 4189 \*vaU LISTER, Adrian M. (1993). Evolution of mammoths and moose: the Holarctic perspective. In *Morphological change in Quaternary mammals of North America* (ed. Robert A. Martin and Anthony D. Barnosky), pp. 178-204. Cambridge University Press, New York, viii + 415 pp.
- 4190 \*vwU LISTER, Adrian M. (1993). 'Gradualistic' evolution: its interpretation in Quaternary large mammal species. *Quaternary International*, 19:77-84.
- 4191 \*vaU LISTER, Adrian M. (1993). Mammoths in miniature. *Nature*, 362:288-289.
- 4192 \*vwU LISTER, Adrian M. (1993). Patterns of evolution in Quaternary mammal lineages. In *Evolutionary patterns and processes* (ed. D. R. Lees and D. Edwards), pp. 71-93. The Linnean Society of London, viii + 325 pp.
- 4193 \*vwU LISTER, Adrian M. (1994). Review of "Fossil elephantoids from the hominid-bearing Awash Group, Middle Awash Valley, Afar Depression, Ethiopia" by J. E. Kalb and A. Mebrate, published 1993 by "Transactions of the American Philosophical Society", 83(1):xv + 114. *Journal of Evolutionary Biology*, 7:517-519.
- 4194 \*evU LISTER, Adrian M. (1994). Skeletal associations and bone maturation in the Hot Springs mammoths. In *The Hot Springs Mammoth Site: a decade of field and laboratory research in paleontology, geology, and paleoecology* (ed. L. D. Agenbroad and J. I. Mead), pp. 253-268. The Mammoth Site of South Dakota, Hot Springs, 457 pp.
- 4195 EbwW LISTER, Adrian M. (1995). Living in isolation. *Geographical*, January, 1995:35-37. **Annotation:** "Why are elephants migrating to a national park in Nepal? Zoologist Adrian Lister investigates a geographical phenomenon [E/ECM].
- 4196 \*vwU LISTER, Adrian M. (1996). Dwarfing in island elephants and deer: process in relation to time of isolation. *Symposium Series of the Zoological Society of London*, 69: 277-292.
- 4197 \*avU LISTER, Adrian M. (1996). Evolution and taxonomy of Eurasian mammoths. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 203-213. Oxford University Press, 472 pp.
- 4198 \*vwU LISTER, Adrian M. (1996). The evolutionary response of vertebrates to Quaternary environmental change. In NATO ASI Series I, vol. 47. *Past and future rapid environmental changes: the spatial and evolutionary responses of the terrestrial biota* (ed. B. Huntley, W. Cramer, A. V. Morgan, H. C. Prentice, and J. R. M. Allen), pp. 287-302. Springer, Berlin.
- 4199 \*avU LISTER, Adrian M. (1996). Sexual dimorphism in the mammoth pelvis: an aid to gender determination. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 254-259. Oxford University Press, 472 pp.
- 4200 \*avU LISTER, Adrian M. (1996). The stratigraphical interpretation of large mammal remains in the Cromer Forest-bed Formation. In *The early middle Pleistocene of Europe* (ed. C. Turner), pp. 25-44. Balkema, Rotterdam.
- 4201 \*hvU LISTER, Adrian M. (1999). Epiphyseal fusion and postcranial age determination in the woolly mammoth *Mammuthus primigenius*. *Deinsea*, 6:79-87. **Annotation:** See Reference no. 3720 for details about "Deinsea 6" [ECM/JS].
- 4202 \*avU LISTER, Adrian M. and AGENBROAD, L. D. (1994). Gender determination of the Hot Springs mammoths. In *The Hot Springs Mammoth Site: a decade of field and laboratory research in paleontology, geology, and paleoecology* (ed. L. D. Agenbroad and J. I. Mead), pp. 208-214. The Mammoth Site of South Dakota, Hot Springs, 457 pp.
- 4203 \*gvU LISTER, Adrian M. and BAHN, Paul. (1994). *Mammoths*. MacMillan, New York, 168 pp. **Annotation:** Translated into French, Japanese, and German. "Well illustrated reconstruction of the story of these long-extinct Ice Age mammals." Evolution, extinction [E/ECM].
- 4204 EmwW LISTER, Adrian and BLASHFORD-SNELL, John. (2000). Exceptional size and form of Asian elephants in western Nepal. *Elephant*, 2(4):33-36.
- 4205 \*vwU LISTER, Adrian M. and BRANDON, A. (1991). A pre-Ipswichian cold stage mammalian fauna from the Balderton sand and gravel, Lincolnshire, England. *Journal of Quaternary Science*, 6:139-157. **Annotation:** *Mammuthus primigenius* remains [AML].
- 4206 \*avU LISTER, Adrian M. and JOYSEY, Kenneth A. (1992). Scaling effects in elephant dental evolution - the example of Eurasian *Mammuthus*. In *Structure, function and evolution of teeth* (ed. P. Smith and E. Tchernov), pp. 185-213. Freund Publishing House Ltd, London and Tel Aviv (Israel), 570 pp.
- 4207 \*vwU LISTER, Adrian M. and SHER, Andrei V. (1995). Ice cores and mammoth extinction. *Nature*, 378:151-172.
- 4208 \*vjU LISTER, Adrian M., KEEN, David H., and CROSSLING, John. (1990). Elephant and molluscan remains from the base of the Baginton-Lillington Gravels at Snitterfield, Warwickshire. *Proceedings of the Geologists' Association*, 101:203-212.
- 4209 LnbW LISTER, S. J., DHANOA, M. S., OMONDI, Patrick O. M., and MUELLER-HARVEY, I. (1997). Kenyan elephant feed preferences explored by near infrared spectroscopy. *Journal of Near Infrared Spectroscopy*, 5:99-111.
- 4210 LmjW LITOROH, Moses W. (1995). Counting elephants (*Loxodonta africana*): a comparison of two census techniques in Sweetwaters Rhino Sanctuary, Kenya. MSc thesis, University of Edinburgh.

- 4211 LmcW LITOROH, Moses W. (1997). Aerial census of the Gash-Setit elephant population of Eritrea and Ethiopia. *Pachyderm*, 23:12-18. **Annotation:** Total elephant aerial count carried out in southwestern Eritrea and northern Ethiopia between 31 October and 16 November 1996. 8 elephants counted, two near Haicota along Gash River, six along Tekezze River on Ethiopian side of border. Count less than expected, cannot conclude these are only elephants present [E/ECM].
- 4212 \*yzU LIUBIN, V. P. (1991). The images of mammoths in Palaeolithic art. *Sovetskaya Arkheologiya*, 20-42 [in Russian].
- 4213 BhtC LIVY, Titus. (1988). *The war with Hannibal*. Penguin Books, London, 687 pp. **Annotation:** *Loxodonta africana*, working, captivity. See Reference no. 1066 [MPK].
- 4214 LhgW LLEWELLYN, Sue. (1992). Please adopt an elephant. *Wildlife times*, 4:6-7. **Annotation:** Cynthia Moss gave up her job as "Newsweek Magazine" reporter/researcher to work for Iain Douglas-Hamilton. It was the beginning of her love affair with elephants that shaped her future and made her one of the foremost experts in elephant behavior" [E/ECM].
- 4215 LcmW LLEWELLYN, Sue. (1993). Hot spots. *Wildlife times*, 2(1):8. **Annotation:** "[Wednesday October 7] was the first time Thermal imaging (TI) equipment has been used successfully to detect elephants under trees, the first phase in an ongoing project by ELEFRIENDS in association with Dr. Iain Douglas-Hamilton..." [E/ECM].
- 4216 LdpC LLOYD, Mark, GODDARD, Moses, ZEINOWICZ, Richard, and HARPER, James S. (1993). One approach to the removal of an aural rhabdomyoma in a 7 year old African elephant. *Proceedings of the American Association of Zoo Veterinarians annual conference, October 10-15, 1993*, pp. 115-118.
- 4217 LnwW LOCK, J. M. (1993). Vegetation change in Queen Elizabeth National Park, Uganda: 1970-1988. *African Journal of Ecology*, 31(2):106-117. **Annotation:** Vegetation change in QENP, between 1970 and 1988 reveal regeneration of *Acacia* spp. widespread. Thickets dominated by *Capparis tomentosa* and *Dichrostachys cinerea* spread, and associated herbs are more diverse. Dry scrub forests continue to decline. Fringes of *Vossia cuspidata* with shrubs such as *Aeschynomene* developed along lake shores. Most changes attributed to decline in elephants, but general reduction in large herbivore biomass may also be important [ID-H/M&DR].
- 4218 EiuW LODGE, Andy. (1994). Ngare Sergoi - Saving a part of Eden. In *Proceedings of the Seventh U.K. Elephant Workshop, hosted by Cricket St Thomas Wildlife Park, Somerset, 20th October 1993* (ed. N. G. Spooner and J. A. Whitear), pp. 112-118. Published by North of England Zoological Society.
- 4219 LdpC LODWICK, Laura J., DUBACH, Jean M., PHILLIPS, Lyndsay G., BROWN, Corrine S., and JANDRESKI, Mark A. (1994). Pharmacokinetics of amikacin in African elephants (*Loxodonta africana*). *Journal of Zoo and Wildlife Medicine*, 25(3):367-375.
- 4220 LcwW LOEFLER, I. J. P. (1992). Parks of western Uganda. *Swara*, 15(6):22-23.
- 4221 LiuW LOEFLER, Imre. (1993). The year of the Luangwa. *Swara*, 16(3):29-30. **Annotation.** Luangwa valley conservation and community development plan [PFH/JMH].
- 4222 \*veU LONG, A., SHER, Andrei V., and VARTANYAN, S. (1994). Holocene mammoth dates. *Nature*, 369:364.
- 4223 LmwW LOUITT, Blythe and LINDEQUE, Malan. (1988). A great step for the desert giants. *Quagga*, 22:26-28. **Annotation:** Conservation efforts and increasing range restriction of elephant in northern Namibia. 1960 population estimate was 1,000. By early 1980s, about 70 in western areas and 250 in central and eastern regions of Kaokoveld. Population grew since 1985, but migratory routes are fenced and range is more restricted by agriculture. Radio tracking project has collared six mature cows [ID-H/M&DR].
- 4224 \*voU LOWENSTEIN, Jerold M. (1992). Probing prehistoric proteins. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 52-53. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** *Loxodonta africana*, *Elephas maximus*, *Mammuthus*, *Mammot*, biochemistry, evolution, systematics [MPK].
- 4225 BrvC LOWENSTEIN, Jerold M. and SHOSHANI, Jeheskel. (1996). Proboscidean relationships based on immunological data. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 49-54. Oxford University Press, 472 pp. **Annotation:** Results on only known hybrid offspring between African and Asian elephants in Chester Zoo, England in 1978; "Motty" died ten days after birth [ECM].
- 4226 LnjW LOWIS, R. (1991). Coprophagy in African elephants. *East Africa Natural History Society Bulletin*, 21(1):11-12. **Annotation:** Observations on coprophagy, eating of a species own dung, in a herd in ANP and similar situations seen by other researchers and the author elsewhere [ID-H/M&DR].
- 4227 \*hvU LOZHKIN, A. V., PAVLOV, G. F., RYABCHUN, V. K., GORBACHEV, A. L., ZADALSKY, S. V., and SHUBERT, E. E. (1988). A new finding of mammoth in Chukotka. *Doklady Akademii Nauk, SSSR*, 302(6):1440-1443.
- 4228 \*hvU LUCAS, Spencer G. (1987). American mastodont from the Sandia Mountains, New Mexico. *New Mexico Journal of Science*, 27(1):29-32.
- 4229 \*hvU LUCAS, Spencer G. (1992). Paleopathology of a mastodont molar. *Texas Journal of Science*, 44(3): 357-359.
- 4230 \*hvU LUCAS, Spencer G. and ALVARADO, Guillermo E. (1991). Comentario sobre la clasificacion del mastodonte de Barra Honda (=Rio Nacaome), Guanacaste, Costa Rica. *Revista Geologica de América Central*, 13:97-8.
- 4231 \*vwU LUCAS, Spencer G. and ALVARADO, G. [Guillermo] E. (1991). El hallazgo mas austral de un *Mammot americanum*: el caso del mastodonte de San Pedro Sula, Honduras. *Revista Geologica de América Central*, 13:85-9.
- 4232 \*vaU LUCAS, S[pencer]. G. and ALVARADO, G. E. (1995). El proboscideo *Rhynchotherium blicki* (Mioceno Tardio) del oriente de Guatemala. *Revista Geologica de América Central*, 18:19-24. **Annotation:** Three upper cheek teeth of *R. blicki* from the Herreria Formation along the Carboneras River in eastern Guatemala indicate a late Miocene age. This is the oldest fossil mammal known from Guatemala [E/ECM].
- 4233 \*avU LUCAS, Spencer G. and ANDERSON, Orin J. (1994). Miocene proboscidean from the Fence Lake Formation, Catron County, New Mexico. *New Mexico Geological Society Guidebook, 45th Field conference, Mogollon Slope, West-Central New Mexico and East-Central Arizona*, 277-278.
- 4234 \*avU LUCAS, Spencer G. and BENDUKIDZE, Oleg G. (1997). Proboscidea (Mammalia) from the early Miocene of Kazakhstan. *Neues Jahrbuch für Geologie und Paläontologie Monatshefte*, 11:659-673.
- 4235 \*avU LUCAS, Spencer G. and EFFINGER, James A. (1991). *Mammuthus* from Lincoln County and a review of the mammoths from the

- Pleistocene of New Mexico. New Mexico Geological Society Guidebook, 1991:277-282.
- 4236 \*avU LUCAS, Spencer G. and MORGAN, Gary S. (1996). The Pliocene proboscidean *Rhynchotherium* (Mammalia: Gomphotheriidae) from south-central New Mexico. Texas Journal of Science, 48(4):311-318. **Annotation:** "A lower jaw of a proboscidean from the Sierra Ladrones Formation of the Santa Fe Group in south-central New Mexico shows diagnostic features of *Rhynchotherium* and can be tentatively referred to *Rhynchotherium falconeri* Osborn pending a much needed species-level revision of the genus" [E/ECM, abstract].
- 4237 \*avU LUCAS, Spencer G. and MORGAN, Gary S. (1997). The American mastodont (*Mammut americanum*) in New Mexico. The Southwestern Naturalist, 42(3):312-317.
- 4238 \*avU LUCAS, Spencer G., ALVARADO, Guillermo E., and VEGA, Eduardo. (1997). The Pleistocene mammals of Costa Rica. Journal of Vertebrate Paleontology, 17(2):413-427.
- 4239 \*avU LUCAS, Spencer G., MORGAN, Gary S., and LEÓN, Carlos M. Gonzáles. (1997). *Rhynchotherium* (Mammalia, Proboscidea) de San José de Pimas, Sonora. Geología del Noroeste, 2(1):7-8 [in Spanish].
- 4240 BavB LUCKETT, W. Patrick. (1996). Ontogenetic evidence for incisor homologies in proboscideans. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 26-31. Oxford University Press, Oxford, 472 pp.
- 4241 EiuW LUNDELIUS, E. L., Jr., DOWNS, T., LINDSAY, E. H., SEMKEN, H. A., ZAKRZEWSKI, R. J., CHURCHER, C. S., HARRINGTON, C. R., SCHULTZ, G. E., and WEBB, S. D. (1987). The North American Quaternary sequence. In Cenozoic mammals of North America: geochronology and biostratigraphy (ed. M. O. Woodburne), pp. 211-235. University of California Press, Berkeley.
- 4242 LiuW LUXMOORE, Richard A. (1989). The ivory trade in Thailand. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 3.12. The Ivory Trade Review Group, Oxford.
- 4243 LcjW LUXMOORE, Richard A. (1989). Africa's elephant dilemma. Traffic Bulletin, 11(1):1.
- 4244 BiuW LUXMOORE, Richard A. (1991). The ivory trade. In The illustrated encyclopedia of elephants (consult. ed. S. Keith Eltringham), pp. 148-157. Crescent Books, New York, 188 pp.; also Salamander Books, London. **Annotation:** *Loxodonta africana*, *Elephas maximus*, poaching, legislation, growth, history, art [MPK].
- 4245 BiuW LUXMOORE, Richard, CALDWELL, John, and HITHERSAY, Lionel. (1989). Comparison of CITES and Customs statistics on the international trade in raw ivory. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 3.1. The Ivory Trade Review Group, Oxford. **Annotation:** Compares raw ivory trade data from the annual reports of Parties to CITES, export permits issued by CITES and country Customs records. Lists the Parties their date of entry into the Convention and the years for which each submitted annual reports between 1979 and 1988 and notes the Customs statistics consulted. Assesses ivory imports gleaned from the Customs statistics and the CITES permit imports as available for Japan, Hong Kong, Germany, France, Taiwan, Thailand and China [ID-H/M&DR].
- 4246 BiuW LUXMOORE, Richard, CALDWELL, John, and HITHERSAY, Lionel. (1989). The UK ivory trade. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 3.2. The Ivory Trade Review Group, Oxford. **Annotation:** Outlines the ivory trade and use of ivory in England. Reviews the imports and exports from CITIES annual reports looking at both the amount of ivory and the size of tusks [ID-H/M&DR].
- 4247 LiuW LUXMOORE, Richard, CALDWELL, John, and HITHERSAY, Lionel. (1989). The volume of raw ivory entering international trade from African producing countries from 1979 to 1988. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 2.1. The Ivory Trade Review Group, Oxford. **Annotation:** Summarizes available ivory export and import data from CITES quota control system and country Customs information 1979-1988. Figures indicate in this period the total in raw ivory exported from the continent fluctuated between 600 and 1,160 tons per year [ID-H/M&DR].
- 4248 ErqC LYON, Derek. (1991). Goodbye, Judy... and welcome Thi-Hi-Way. Chester Zoo Life (Chester, England), Winter:6-7.
- 4249 \*yzU LYSEK, Carol Ann. (1998). Ontario specialists re-create mammoths. Mammoth Trumpet, 13(1):12, 19. **Annotation:** Outside Whitehorse, Yukon Territory, are three life-size fiberglass castings of family of mammoths. Male modeled after "Hebior Mammoth" from site near Kenosha, Wisconsin. Female based on "Whitstone Mammoth" from Old Crow area, northern Yukon, and calf modeled after "Dima", baby mammoth found in Siberia. Mammoths created by Research Casting International, of Oakville, Ontario, owned by Peter May [E/ECM].
- 4250 BgzU LYSTER, S. (1990). Elephant ups and downs. BBC Wildlife, 8(1):28.
- 4251 \*vaU MA, Ancheng and TANG, Huliang. (1992). On discovery and significance of a Holocene *Ailuropoda* — *Stegodon* fauna from Jinhua, Zhejiang. Vertebrata Palasiatica, 30(4):295-312 + 3 pls.
- 4252 LicW MAAS, Barbara. (1995). What chance for the African elephant? New Scientist, 147(1992):45-46. **Annotation:** Critical review of the IUCN report by Dublin and colleagues which notes the apparent lack of effectiveness of the ivory ban: Four years After the CITES Ban [ID-H/M&DR].
- 4253 \*vaU MAAS, M. C., THEWISSEN, J. G. M., and KAPPELMAN, J. (1998). *Hypsamasia seni* (Mammalia: Embrithopoda) and other mammals from the Eocene Kartal Formation of Turkey. In Dawn of the Age of Mammals in Asia (ed. K. C. Beard and M. R. Dawson), pp. 286-297. Bulletin of Carnegie Museum of Natural History, 34. **Annotation:** Among remains found was right lower incisor of proboscidean of undetermined genus and species. Except for much smaller size, the isolated proboscidean incisor is similar to the late Eocene *Palaeomastodon* (*Phiomia*) *serridens*. Denticulated lateral edge also characteristic of some other proboscideans, including some gomphotheres and amebelodontids [E/ECM, p. 291].
- 4254 LcjW MABRY, Marcus and WEINGARTEN, Tara. (1997). The elephant lobby: should Americans pay to lure big-game hunters to Zimbabwe? Newsweek (September 8) 130(10):42-43. **Annotation:** CAMPFIRE [ECM].
- 4255 +nvB MACFADDEN, Bruce J. (1997). Origin and evolution of the grazing guild in New World terrestrial mammals. Trends in Ecology & Evolution, 12, 5(131):182-187. **Annotation:** "Although vertebrate herbivory has existed on land for about 300 million years, the grazing adaptation, principally developed in mammals, did not appear until the middle Cenozoic about 30 million years ago" [E/ECM].
- 4256 +mjB MACFADDEN, Bruce J. and HULBERT, Richard C., Jr. (1990). Body size estimates and size distribution of ungulate mammals from the late

- Miocene Love Bone Bed of Florida. In Body size in mammalian paleobiology: estimation and biological implications (ed. John Damuth and Bruce J. MacFadden), pp. 337-363. Cambridge University Press. **Annotation:** *Amebelodon* cf. *A. barbourensis*, p. 344 [ECM].
- 4257 LchW MACKAY, Margo. (1987). Reprieve for the Knysna elephants. African Wildlife, 41(6):305. **Annotation:** *Loxodonta africana*, conservation, population, translocation, South Africa. See Reference no. 2029 [MPK].
- 4258 LewW MACKAY, Margo. (1996). The Knysna elephants and their forest home (2nd edition). Wildlife and Environment Society of SA, Knysna, 136 pp.
- 4259 BhyC MACKIE, Leslie. (1996). Review of "London Zoo from old photographs 1852-1914" by John Edwards, self published 1996, 241 pp. Journal of the Elephant Managers Association, 7(2):73-74.
- 4260 BgjB MACMILLAN, D. M. (1993). Elephants: our last land giants. Carolrhoda Books, Minneapolis, 48 pp.
- 4261 LckW MACNAB, J. (1991). Does game cropping serve conservation? a reexamination of the African data. Canadian Journal of Zoology, 69(9):2283-2290. **Annotation:** Macnab is the pen-name for: Sinclair, A. R. E.; Huston, D.; Caughley, G.; Norton-Griffiths, M. [MPK].
- 4262 \*dju MACPHEE, Ross D. E. and MARX, Preston A. (1999). Mammoths & microbes: hyperdisease attacked the New World. Discovering Archaeology, 1(5):54-56, 59. **Annotation:** A disease-causing organism may have been carried by humans or the animals who traveled with them, as they entered North America. Animals of the New World had no immunity to the microbe and were helpless against it [E/ECM].
- 4263 EcgB MADAWELA, M. (1993). The elephant needs our support. The Island (Sri Lanka), 7 December 1993.
- 4264 LiuW MADIGAN, Alix. (1996). Review of "In the presence of elephants" by Peter Beagle and Pat Derby, published 1995 by Capra Press, Santa Barbara, 84 pp. San Francisco Chronicle, January 21, 1996, and reprinted in Circus Report, No. 6:18-20.
- 4265 EapW MADUGALLE, S. J. (1989). Raja — the Sri Dalada Maligawa Tusker. Central Cultural Fund, Colombo. Pages not provided.
- 4266 +veB MAGLIO, Vincent J. (1996). Foreword. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy). Oxford University Press, 472 pp.
- 4267 BqgC MAGUIRE, Richard "Army". (1995). Standardized elephant training. Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 4 unnumbered pages.
- 4268 BqpC MAHANNOP, Alongkorn. (1992). Elephant immobilisation. The 13th International Elephant Workshop, Atlanta, 1992. pp. 117-119. Zoo Atlanta, Georgia, 151 pp.
- 4269 BqrC MAHRY, Pat and ROACH, Russ. (1995). Elephant artificial insemination at Woodland Park Zoo. Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 6 unnumbered pages.
- 4270 LbnW MAIGE, Mattahew K. S. (1990). Effects of elephants (*Loxodonta africana*) on the woody vegetation in Mikumi National Park, Tanzania. MSc. Agricultural University of Norway (NORAGRIC), xi + 105 pp.
- 4271 EroB MAINKA, S. A. and LOTHROP, C. E., Jr. (1990). Reproductive and hormonal changes during the estrous cycle and pregnancy in Asian elephants (*Elephas maximus*). Zoo Biology, 9(6):411-419.
- 4272 EroB MAINKA, Susan A., COOPER, Robert M., BLACK, Sandra R., and DIERENFELD, Ellen S. (1994). Asian elephant (*Elephas maximus*) milk composition during the first 280 days of lactation. Zoo Biology, 13:389-393.
- 4273 LnjK MALAN, John W. and VAN WYK, Abraham E. (1993). Bark structure and preferential bark utilisation by the African elephant. IAWA Journal, 14(2):173-185. **Annotation:** Hypothesis that bark fracture properties influence debarking of selected trees by African elephants tested in northern TGR. Index of bark breakage strength and pliability of secondary phloem tissue compiled for 11 common riverine species, bark anatomy of these species investigated to determine relative fibrosity. Majority of preferred species have strong and pliable bark, associated with high proportion of fibers. But not all preferred species have these characteristics, indicating factors other than bark fracture properties affect species preference. Bark structure influences way pieces of bark stripped from tree trunk during debarking [ID-H/M&DR].
- 4274 LcjW MALAWI, DEPARTMENT OF NATIONAL PARKS, WILDLIFE AND TOURISM. (1991). Elephant conservation plan for Malawi. Department of National Parks, Wildlife and Tourism, Lilongwe, 58 pp.
- 4275 +vxB MALYARCHUK, B. A., DERENKO, M. V., LAPINSKII, A. G., and SOLOVENCHUK, L. L. (1996). Polymerase chain reaction analysis of ancient DNA (Enmyneem mammoth). Biology Bulletin, 23(6):562-565. **Annotation:** Translated from "Izvestiya Akademii Nauk", Seriya Biologicheskaya, 6:681-686. DNA was isolated from "Enmyneem mammoth" muscles, and control region and cytochrome *b* gene of mitochondrial genome were analyzed by polymerase chain reaction (PCR). Mammoth DNA was amplified by classical PCR (two primer system) and single-primer PCR (spPCR) resulting in DNA fragments up to 1600 bp long. Restriction analysis of mitochondrial cytochrome *b* gene was carried out. Cytochrome *b* genes in three Elephantidae genera were compared (abstract, p. 562). Authors concluded DNA of mammoth identical to that of African elephants. These data point to phylogenetic relations between genera *Mammuthus* and *Loxodonta* and are at variance with trichotomy of Elephantidae genera (p. 565); cf. Annotation to 5753 [E/ECM].
- 4276 LcjW MANN, P. (1987). Elephants et rhinoceros en Zambie: le crepuscule des mastodontes. La Courrier de la Nature, 107:32-37. **Annotation:** Outlines some of the internal and external situations that have caused the large scale loss of elephant and rhino in Zambia during the last decade and notes some of the funding programs which have assisted in stemming the tide [ID-H/M&DR].
- 4277 LcjW MANSPEIZER, Ilyssa E. (1994). Elephant conservation development programme - Ethiopia. AECCG/EDG, Oxford, 108 pp. (EC African Elephant Conservation Programme 1992-1994; vol. 3).
- 4278 ErtC MAR, Khyne U. (1996). Captive breeding of Asian elephants in Myanmar: an analysis of the reproductive parameters of domestic female elephants of the Union of Myanmar. Tigerpaper, 23(4):6-13. **Annotation:** In this initial phase of the studbook project of logging elephants of the state-owned Myanmar Timber Enterprise, it was found that an adult-dominated age structure and female-bias sex ratios are characteristics of the population [E/ECM].
- 4279 ErpW MAR, Khyne U., MAUNG, M., THEIN, M., KHAING, A. T., TUN, W., and NYUNT, T. (1995). Electroejaculation and semen characteristics in

- Myanmar timber elephants. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 473-482. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 4280 LiuW MARAJAN, Malik D., HASHIM, Ibrahim M., and EL FAKI, H. (1995). Economic aspects of wildlife in Sudan. *Wildlife & Nature [Nature et Faune]* (FAO, Accra, Ghana), 11(2):42-51 [in English and French]. **Annotation:** Sudan has long history as ivory exporter and despite lack of records, it seems that in 1980s continuous supply of ivory emanated from country. Information gleaned from records corresponds with Winter's 1991 figures, but since large proportion of estimate was illegal the government had significant stock from which to make agreement on export with CITES after 1985. Available records note weight exported between 1985 and 1987 was 155,762 kg. Post 1985 quota agreements made with CITES involved 34,472 tusks [ID-H/M&DR].
- 4281 UzqC MARAKAMI, Haruki. (1991). The elephant vanishes. *The New Yorker*, November 18, 1991:45-53. **Annotation:** An inane story about the disappearance of an elephant and its keeper from a zoo in Tokyo, Japan. Neither is ever seen again [ECM].
- 4282 EzgC MARCHANT, Garry. (1998). Adventure Nepal. *Northwest Airlines World Traveler*, July, 1998:26-34, 52. **Annotation:** Travelers can trek the legendary countryside, raft its rivers and explore famed RCNP aboard an elephant — and still savor British-style bed tea [ECM, p. 27].
- 4283 EbzC MARCHANT, Gary H. and LIESMEYER, Brent. (1991). Observing one captive female Asian elephant before, during, and after a solar eclipse: "Raiders of the lost dark". *Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991*, pp. 35-42. Burnet Park Zoo, Syracuse, 161 pp.
- 4284 BicB MARCHANT, Gary H. and ROSSER, Faye D. (2000). Review of "The Japanese Ivory Industry" by Esmond Bradley Martin, published by World Wildlife Fund - Japan, Tokyo, 1985. *Elephant*, 2(4):72.
- 4285 LwmW MARCHANT, Gary H., MARSAC, Eleanor C., and SHOSHANI, Jeheskel. (2000). African elephant population estimates and distribution: 1995/1999 update. *Elephant*, 2(4):11.
- 4286 LmwW MARECHAL, C., MAUROIS, C., and CHAMBERLANC, C. (1998). Size (and structure) of forest elephants groups (*Loxodonta africana cyclotis* Matschie, 1900) in the Odzala National Park, Republic of Congo. *Mammalia*, 62(2):297-300.
- 4287 BhqB MARSAC, Eleanor C. (compiler). (2000). Hannibal and the elephants. *Elephant*, 2(4):76.
- 4288 LyzU MARSHALL, Elliot. (1998). Elephantine gift stirs museum debate. *Science*, 280:1186-1187. **Annotation:** Renovations at the National Museum of Natural History may result in the trashing of some cherished old exhibits and relocation of the huge elephant in the entrance rotunda that serves as the museum's icon [E/ECM].
- 4289 LecW MARTIN, C. (1991). *The rainforests of West Africa: ecology, threats, conservation*. Birkhauser Verlag, Basel/Boston/Berlin, 235 pp. **Annotation:** *Loxodonta africana*, *L. a. cyclotis*, habitat, seed dispersal [MPK].
- 4290 EiyB MARTIN, Chrysee Perry and MARTIN, Esmond Bradley. (1990). Sri Lankan ivory sculpture in retrospect. *Pachyderm*, 13:35-38.
- 4291 BicB MARTIN, Esmond Bradley. (1990). After the ivory bans. *Wildlife Conservation*, 93(6):28-31. **Annotation:** "...traders, conservationists, government officials, and others involved want to know what has happened to the world's major ivory-carving industries since June 1989" [E/ECM]. Status of ivory trade and associated industry in first year of ban effected by CITES with placement of African elephants on Appendix I [ID-H/M&DR].
- 4292 BicB MARTIN, Esmond Bradley. (1990). Ivory and elephants in India. *Swara*, 13(1):26-29.
- 4293 BicW MARTIN, Esmond Bradley. (1990). Ivory billiard balls. *BBC Wildlife*, 8(9):622-623. **Annotation:** International campaign to discourage people in western Europe, the US and Japan from buying ivory had major effect on ivory trade. One effect is that, except for signature seals, there has been drastic decline in carving in Japan, India, Hong Kong and China. While prices have not declined markedly in India, in Kenya it has dropped to 1/10 its former value [ID-H/M&DR].
- 4294 LicW MARTIN, Esmond Bradley. (1991). The effects of the international ivory bans on Zimbabwe's ivory industry. *Swara*, 14(6):26-28. **Annotation:** Reviews effects of international ivory ban on the Zimbabwean ivory industry with respect to the CITES ban in 1989 which prohibited international sale or exports [ID-H/M&DR].
- 4295 LiuW MARTIN, Esmond Bradley. (1992). Ivory, rhino horn and other wildlife trade in the United Arab Emirates. *Swara*, 15(4):25-27. **Annotation:** Activity associated with ivory and rhino horn trade during authors earlier visits and situation in January 1992. Noticeable decline in presence of ivory for sale, most now comes from India. Dubai authorities seem strict, no known consignment of raw ivory from East Africa arrived since 1989, but Sharjah is lenient, a consignment from Somalia was received in 1991 [ID-H/M&DR].
- 4296 BiuW MARTIN, Esmond Bradley. (1992). The rise and fall of the ivory market. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 202-207. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also Simon & Schuster, London. **Annotation:** Adapted from articles by Esmond Bradley Martin in "BBC Wildlife" and "Wildlife Conservation" in September and November/December 1990. Reviews what happened to trade in first year of 1989 CITES ban on international ivory trade. Apparent market and craft industry situation in major importing countries Japan, China, Hong Kong, India, Laos, Vietnam, and United Arab Emirates, as gleaned from personal visits. Substantial drop in both poaching and ivory price in Kenya noted. This may not be reflected in other range states [ID-H/M&DR].
- 4297 EiuW MARTIN, Esmond Bradley. (1992). Wildlife trade booms in Laos. *Wildlife Conservation*, 95(2):8-9.
- 4298 BiyW MARTIN, Esmond Bradley. (1993). The effects of the 1989 international elephant ivory ban on the netsuke carvers of Japan. *The Rhino & Elephant Journal*, 8:31-33. **Annotation:** Use of ivory in making of netsukes. Originally made to attach tobacco pouches to kimonos these carvings became national and internationally traded works of art. Since 1989 ban, alternative ivory sources such as mammoth ivory and hippo teeth used in place of elephant ivory [ID-H/M&DR].
- 4299 BiuW MARTIN, Esmond Bradley. (1998). Ivory in Kathmandu. *Oryx*, 32(4):317-320. **Annotation:** "Elephant ivory is still on sale in Kathmandu, in Nepal, despite the fact that this transgresses the country's legislation" [E/ECM].
- 4300 LihW MARTIN, Esmond Bradley. (1998). New buyers of ivory in the Sudan threaten elephants. *Oryx*, 32(3):166-169. **Annotation:** All the main curio shops in the three major cities of Sudan have been selling carved ivory items, mainly to Asians living in or visiting Sudan; prices doubled between 1996 and 1997, with a range per kg paid by craftsmen, in late 1997, from US \$15.50 (small tusk) to US \$43.60 (large

- tusk of good quality) [E/SLS].
- 4301 **BiuW** MARTIN, Esmond Bradley and VIGNE, Lucy. (1989). The decline and fall of India's ivory industry. *Pachyderm*, 12:4-21.
- 4302 **BiuW** MARTIN, Esmond Bradley and VIGNE, Lucy. (1989). The decline and fall of India's ivory trade. In *The ivory trade and the future of the African elephant* (coord. S. Cobb), Vol. 2, Technical Reports, Section 3.7. The Ivory Trade Review Group, Oxford.
- 4303 **EiuW** MARTIN, Esmond Bradley and VIGNE, Lucy. (1997). Expanding ivory production in Myanmar threatens wild elephants. *Oryx*, 31(3):158-160. **Annotation:** Since 1980s smuggling tusks and ivory objects from Myanmar into neighboring Thailand increasing, some worked ivory smuggled into China. Since ivory ban in 1989/90, foreign visitors have smuggled ivory items they buy out of Myanmar in their luggage, chances of being caught slim. In country where illegal trade in opium, gemstones, timber and wildlife is rife, and often controlled by influential people, there is little hope the current military government will give greater priority to protecting wild elephants [E/ECM].
- 4304 **LiuW** MARTIN, Esmond Bradley, MILLIKEN Tom, and NOWELL, Kristin. (1993). Rhino horn stockpile acquisition compensation & destruction *Swara*, 16(3):17-22. **Annotation.** Mentions the 1990 ivory incineration in Kenya [PFH/JMH].
- 4305 **\*ujU** MARTIN, Paul S. (1999). The time of the hunters: a 'blitzkrieg' by fierce humans killed off the giants. *Discovering Archaeology*, 1(5):40-41, 43-45, 47. **Annotation:** More than 13,000 years ago, they crossed the Bering Strait and discovered a new world. None of the animals in this world had ever seen these creatures and didn't know enough to be afraid, so the hunters destroyed them [E/ECM].
- 4306 **LkiW** MARTIN, Rowan B. (1990). Culling: the Zimbabwean experience. In *The future of Botswana's elephants* (ed. P. Hancock), pp. 37-48. Proceedings of a workshop organized by The Kalahari Conservation Society in conjunction with The Department of Wildlife and National Parks. 10 November 1990, Hancock, P., Editor., Gaborone, Botswana, Kalahari Conservation Society. **Annotation:** Rationale for elephant management in Zimbabwe and effects of population management on country's elephant population, with respect to maintaining it. Production of ivory for population managed by culling based on simulated population models [ID-H/M&DR].
- 4307 **LcuW** MARTIN, Rowan B. (1990). Elephant and rhino conservation in Zimbabwe. Paper presented to the Japan Wildlife Research Centre, Tokyo, August 1990. Department of National Parks & Wild Life Management, Harare, 25 pp. **Annotation:** Fide Taylor, R. D., 1993, Reference no. 5391: "To sustain good quality trophy elephant hunting, quotas ideally should not exceed 0.7%" [MPK].
- 4308 **LicW** MARTIN, Rowan B. (1990). Elephants: the dust has settled. *African Wildlife*, 44(4):204-206. **Annotation:** Conclusions of CITES meeting in Lausanne, Switzerland, 1989, that placed ban on ivory trade. Control mechanisms put in place by southern African countries to regulate illegal trade in elephant products from elephant resources and operation of marketing center for these countries are discussed [ID-H/M&DR].
- 4309 **LuiW** MARTIN, Rowan B. (1990). Illegal hunting in Zimbabwe. In *The Future of Botswana's Elephants* (ed. P. Hancock), pp. 24-31. Proceedings of Kalahari Conservation Society Symposium on Elephants (Gaborone, Botswana, 10 November 1990), 96 pp.
- 4310 **LwcW** MARTIN, Rowan B. (1992). Maximum likelihood analysis of the elephant population estimates for Matabeleland North, Zimbabwe. In *Elephant management in Zimbabwe* (2nd edition) (ed. R. B. Martin, A. M. G. Conybeare), Appendix 11, pp. 87-91. Department of National Parks and Wild Life Management, Harare, Zimbabwe. **Annotation:** Aerial surveys of HNP and Matetsi Complex since 1980 include almost all elephant populations in Matabeleland North with exception of small number on communal lands and some State Forest Areas. Predicted data compared to actual population estimates, known number of animals killed each year from 1979 to 1991 recorded and immigration into area assessed [ID-H/M&DR].
- 4311 **LkcW** MARTIN, Rowan B. (1992). The number of elephants killed in Zimbabwe: 1960-1991 In *Elephant management in Zimbabwe* (2nd edition) (ed. R. B. Martin, A. M. G. Conybeare), Appendix 1, pp. 45-49. Dept of National Parks and Wild Life Management, Harare, Zimbabwe. **Annotation:** Review of records gives an estimate of 46,775 elephants killed between 1960 and 1991. On a regional basis, the largest number, 43%, were destroyed in Matabeleland North. On an annual basis, there were three distinct peaks: the early 1960s when culls took place in HNP and MNP, the 1970s when large culls were undertaken in GNP and HNP and then in the 1980s with culls removed 20,000 in 1982 and 13,000 in 1986 from HNP [ID-H/M&DR].
- 4312 **LcwW** MARTIN, Rowan B. (1992). Relationship between elephant and canopy tree cover. In *Elephant management in Zimbabwe* (2nd edition) (ed. R. B. Martin, A. M. G. Conybeare), Appendix 9, pp. 77-80. Dept of National Parks and Wild Life Management, Harare, Zimbabwe. **Annotation:** Formulas concerned with the survival of canopy trees in relationship to the elephant density and the recruitment of trees into the canopy are presented [ID-H/M&DR].
- 4313 **LkcW** MARTIN, Rowan B., CRAIG, G. C., BOOTH, V. R., and CONYBEARE, Andrew Michael G. (eds). (1992). *Elephant management in Zimbabwe* (2nd edition). Dept of National Parks and Wild Life Management, Harare, x + 124 pp. **Annotation:** Compiled by DNPWLM, August 1989 edited by R. B. Martin, G. C. Craig and V. R. Booth; updated, edited January 1992. Zimbabwe Elephant population continued to rise. It is considered that management rather than imposition of trade bans would allow for long term, economically sound conservation. Effects of management in relation to reduction in tree loss and elephant numbers, regeneration, changes in elephant behavior. Status of elephants and woodlands in Zimbabwe as they affect elephant numbers and distribution. Management methods and arguments for and against culling. Culling methods and 11 short studies on various elephant aspects [ID-H/M&DR].
- 4314 **BqtC** MARTINI, David and PUGH, Jim (1991). A critique of Roger Williams Park Zoo's new elephant exhibit. *Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991*, pp. 26-30. Burnet Park Zoo, Syracuse, 161 pp.
- 4315 **LbtC** MARTINI, David, PUGH, Jim, and SAVAGE, Anne. (1991). Do elephants really forget? Preliminary assessment of the two choice object discrimination abilities of African elephants. *Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991*, pp. 111-113. Burnet Park Zoo, Syracuse, 161 pp. **Annotation:** Results "...show significant individual differences among the three elephants. One female ("Alice") took significantly longer to master the object discrimination tasks than the other two females" [E/JS].
- 4316 **LcgW** MARUCA, Mary. (1994). Partnership for pachyderms. *Endangered Species Technical Bulletin*, 19(1):7-8. **Annotation:** Funding and conservation grant and program support as devised under African Elephant Conservation Act enacted by United States Congress, 1988 [ID-

- H/M&DR].
- 4317 \*ewU MASCHENKO, E. N. (1992). Structure of a mammoth herd from the Sevsik late Pleistocene locality (Russia, Bryansk region). *Proceedings of the Zoological Institute of St. Petersburg*, 246:41-59 [in Russian].
- 4318 EbrW MASSON, Jeffrey Moussaieff and MCCARTHY, Susan. (1997). Do animals fall in love? *Reader's Digest*, September, 1997:152-56.  
**Annotation:** From *When elephants weep: the emotional lives of animals*, Delacorte Press, New York. One story relates an incident of a work elephant named "Ma Shwe", who saved her three month old calf from rising flood waters in Myanmar by lifting it in her trunk to a rocky ledge above the water [E/ECM].
- 4319 EbrW MASSON, Jeffrey Moussaieff and MCCARTHY, Susan. (with drawings by Barbara Downs) (1994). *When elephants weep: the emotional lives of animals*. Jonathan Cape, London, 268 pp. Also published (only MASSON and MCCARTHY), 1995, by Delacorte Press, New York, xxiii + 291 pp., and published, 1995, by Machbarot Lesifrut, Zmora Ltd, Tel-Aviv, 267 pp. [in Hebrew]. **Annotation:** Elephants mentioned in a few places (e.g., Chapter 5); subtitle more apt. Opens mind of reader to perceive animals not only as objects of scientific study, but as thinking, feeling beings. Readers may not read notes and references and accept information given as fact. Reviewed by Robert H. I. Dale in "JEMA", 6(2):68-69 [JS].
- 4320 LrpW MATHIAS, Susanna, VAN AARDE, Rudi J., WOODING, P. F., and ALLEN, W. R. (1994). Placentation in the African elephant (*Loxodonta africana*). *Journal of Reproduction and Fertility*, Abstract Series 14:5-6 (abstract no. 7) [papers of Society for Study of Fertility, Nutrition Society in Reproduction, Growth and Development Group, Joint Meeting, December, 1994, London].
- 4321 LmwW MATTHIJSSEN, Peter. (1991). *African silences*. Random House, New York, 225 pp. **Annotation:** In 1986 the author accompanied ecologist David Western on aerial survey of elephants in rain-forest areas of central Africa. Population status of forest elephant and reputed "pygmy elephant" [MPK].
- 4322 LcjW MAUROIS, C. CHAMBERLAN, C., and MARECHAL, C. (1997). Aperçu du régime alimentaire de l'éléphant de forêt, *Loxodonta africana cyclotis*, dans le Parc National d'Odzala, République du Congo. *Mammalia*, 61(1):127-130.
- 4323 \*avU MAZO, Ana Victoria. (1996). Gomphotheres and mammutids from the Iberian peninsula. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 136-142. Oxford University Press, 472 pp.
- 4324 \*vwU MAZO, Ana Victoria, PEREZ-GONZALEZ, A., and AGUIRRE, Émiliano. (1990). Las faunas pleistocenas de Fuensanta del Júcar y El Provençyo y su significado en la evolución del Cuaternario de la Llanura manchega. *Boletín Geológico y Minero*, 101-3:404-418.
- 4325 LmwW MBUGUA, Susan. (1996). Counting elephants from the air-sample counts. In *Studying elephants* (ed. K. Kangwana), pp. 21-27. African Wildlife Foundation, Nairobi, Kenya, 178 pp. **Annotation:** How to carry out sample count using aerial survey techniques wherein only part of study area is searched, a count of animals made, and population estimate of whole study or census area extrapolated from number counted in sample area(s) [ID-H/M&DR].
- 4326 EdqC MCALOON, F. Michael. (1997). A determination of the prevalence of gastrointestinal helminth infestation of *Elephas maximus* in Kerala, southern India. *Journal of the Elephant Managers Association*, 8(2):80-81. **Annotation:** 25 of 27 elephant samples were found to be positive for infestation. One factor in infestation is unclean environment. Suggestion: remove fecal material several times a day; provide unpolluted water, medication [JS].
- 4327 \*vwU MCANDREWS, J. H. and JACKSON, L. J. (1988). Age and environment of late Pleistocene mastodont and mammoth in southern Ontario. In *Late Pleistocene and early Holocene paleoecology and archeology of the eastern Great Lakes region* (ed. R. S. Laub, N. G. Miller, and D. W. Steadman), pp. 161-172. Bulletin of the Buffalo Society of Natural Sciences, 33. **Annotation:** Of 113 fossil proboscidean reports, 61 mastodont sites and 27 mammoth sites assignable to postglacial past 15,000 years [E/ECM].
- 4328 BbpB MCCOMB, Karen. (1996). Studying vocal communication in elephants. In *Studying elephants* (ed. K. Kangwana), pp. 112-119. African Wildlife Foundation, Nairobi, Kenya, 178 pp. **Annotation:** Infrasonic communication, vocal communication (below 30 Hz low frequency limit of human hearing), recognized as one of main ways how elephants communicate [ID-H/M&DR].
- 4329 LcjW MCCONNELL, Mary Beth. (1997). Husbandry in Botswana — elephant back safaris. *Journal of the Elephant Managers Association*, 8(3):24-29.
- 4330 BqtB MCCONNELL, Mary Beth. (1997). They won't fit in the sink, but we have to wash them anyway. *Journal of the Elephant Managers Association*, 8(1):55-56. **Annotation:** Clean skin very important element of elephant care [E/ECM].
- 4331 LcuW MCKAY, B. K. (1989). CITES: the African elephant's last stand. *Mainstream*, Fall:20-24.
- 4332 BcmW MCKAY, G. M. (1993). Problems in determination of effective population size and minimum viable population size in elephants. *Abstracts of the 6th International Theriological Congress*, held in Sydney, New South Wales, Australia, July 4-10, 1993, 6:200-201.
- 4333 +apB MCKENNA, Malcolm C. (1987). Molecular and morphological analysis of high-level mammalian interrelationships. In *Molecules and morphology in evolution: conflict or compromise* (ed. C. Patterson), pp. 55-93. Cambridge University Press, Cambridge, 229 pp.
- 4334 BvoB MCKENNA, Malcolm C. (1992). The alpha crystallin A chain of the eye lens and mammalian phylogeny. *Annales Zoologici Fennici*, 28:349-360. **Annotation:** Molecular approach in phylogenetic studies; cf. Reference no. 2147 [JS].
- 4335 +gvB MCKENNA, Malcolm C. (1997). Review of "The Proboscidea: evolution and palaeoecology of elephants and their relatives" edited by Jeheskel Shoshani and Pascal Tassy, published 1996 by Oxford University Press, 472 pp. *Science*, 276:46-47.
- 4336 +vwB MCKENNA, Malcolm C., BELL, Susan K., SIMPSON, George G., NICHOLS, R. H., TEDFORD, R. H., KOOPMAN, K. F., MUSSER, G. G., NEFF, N. A., SHOSHANI, Jeheskel, and MCKENNA, David M. (1997). *Classification of mammals above the species level*. Columbia University Press, New York, 631 pp. **Annotation:** Proboscidea and Desmostylia are classified in Behemota, Behemota and Sirenia in Tethytheria, Tethytheria and Hyracoidea in Uranotheria. Note that with a small change in the length of the tree, Proboscidea may be united with Sirenia. Reviewed in "Journal of Mammalian Evolution", 5(1):107-8 [JLP].
- 4337 BqtC MCKENNA, Virginia, TRAVERS, Will, and WRAY, Jonathan (eds). (1987). *Beyond the bars: the zoo dilemma*. Thorsons, Wellingborough [UK], 208 pp. **Annotation:** Elephants, mortality, disease, behavior. See quotes in H. Williams, 1989, Reference no. 5718 [MPK].
- 4338 LqtC MCKENZIE, A. A. (ed.). (1993). *The capture and care manual: capture, care, accommodation and transportation of wild African animals*. Wildlife Decision Support Services/South African Veterinary Foundation, Pretoria, South Africa, 730 pp. [MPK].

- 4339 LbrW MCKNIGHT, B. L. (1991). Birth of an African elephant. *Swara*, 14(6):11-14. **Annotation:** Birth sequence by a mature female elephant and associated group behavior involving birth attendants as well as vocalization of other females for the first two days [ID-H/M&DR].
- 4340 LbrW MCKNIGHT, B. L. (1992). Birth of an African elephant in Tsavo East National Park, Kenya. *African Journal of Ecology*, 30(1):87-89 [in 'Notes and Records']. **Annotation:** Male calf born in TNP, October 1990, late morning in open area, about 80 animals in vicinity. Group of calves and females remained near birth site. Group indulged in significant rumbling and ear flapping. One female seemed to assist. Copious fluid streamed from temporal and ear canals of female in labor. Never attempted to lie down. Within half hour, calf was standing at mother's side, within 20 minutes, it followed her. Placenta expelled an hour and forty-five minutes after birth, buried by mother. By third day, ears fully extended and infant had little difficulty navigating terrain [ID-H/M&DR].
- 4341 LbqB MCKNIGHT, B. L. (1995). Behavioral ecology of 'hand-reared' African elephants (*Loxodonta africana* (Blumenbach)) in Tsavo East National Park, Kenya. *African Journal of Ecology*, 33(3):242-256. **Annotation:** Most data collected for two years on hand-reared animals done following on foot; in the wild done from vehicle. Hand-reared animals of 12-60 months fed 82.9% of time, rested for 7.9% while wild calves of similar age fed for 44.5%, rested for 35.5% of time. Both groups fed primarily on grass. Similar results obtained from two wet and two dry season observations periods. Since human contact found to have major effect on behavior of hand-reared animals, recommendations suggest minimizing contact [ID-H/M&DR].
- 4342 LucW MCKNIGHT, B. L. (1997). The impact of environmental and poaching pressures on elephant demography, reproductive patterns and social organization in Tsavo East National Park, Kenya. D. Phil. thesis, Oxford University, xii + 200 pp.
- 4343 BiuW MCMEEKIN, D. E. (1990). Thatcher takes reservation to CITES ban. *Wildlife News*, 25(2):11.
- 4344 LcuW MCMEEKIN, Diana. (1990). A victory for the elephants. *Wildlife News*, 25(1):1, 7.
- 4345 LbjW MCNAUGHTON, S. J., RUESS, R. W., and SEAGLE, S. W. (1988). Large mammals and process dynamics in African ecosystems. *BioScience*, 38(11):794-800.
- 4346 BtqC MCNEELY, Jeffrey A. (1992). Elephants as beasts of burden. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 149-151. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London.
- 4347 BfyB MCNEELY, Jeffrey A. (1992). Elephants in folklore, religion, and art. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 158-165. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London.
- 4348 EwcW MCNEELY, Jeffrey A. and WACHTEL, Paul S. (1988). *Soul of the tiger: searching for nature's answers in exotic southeast Asia*. Doubleday, New York, 390 pp. **Annotation:** *Elephas maximus* [MPK].
- 4349 BpbB MCPHEE, A. T. (1988). Elephant behavior surprises scientists. *Current Science*, 74(1):4-5.
- 4350 LceW MCSHANE, T. O. (1987). Elephant-fire relationships in *Combretum*/Terminalia woodland in south-west Niger. *African Journal of Ecology*, 25(2):79-94. **Annotation:** Data on woodland utilization and damage collected on series of quadrates randomly located in a 100 sq. km study area in W National Park and Tamou Reserve in southwest Niger to test view that distribution of elephants and impact by elephants on woodland can be manipulated by burning. Mosaic of burned and unburned land, soil moisture levels and burned-sprouted, burned-unsprouted and unburned vegetation at different positions let elephants utilize different aspects to meet different needs. Differences in elephant distribution by activity, relative to spatial distribution of burning, indicated comparisons by aerial surveys may be biased. It is recommended that management implications of burning with respect to elephant-woodland interactions be considered in broader model [ID-H/M&DR].
- 4351 LewW MCSHANE, T. O. (1989). Some preliminary results of the relationship between soils and tree response to elephant damage. *Pachyderm*, 11:29-31. **Annotation:** VMGR exhibits variety of conditions from sandy well-drained sites where soil-water dynamics generally favor plant biomass production to clay poorly drained sites where soil-water dynamics do not favor plant biomass production. Preliminary data on relationship between range of these soil-water conditions in VMGR and how trees respond to elephant damage. Whereas the standard models of elephant-woodland interactions hypothesize that the effect of elephant on woodland is to reduce tree density, and therefore to reduce food availability, this study indicates that elephant-woodland interactions may be more site specific [ID-H/M&DR].
- 4352 \*ehU MEAD, Jim I. and AGENBROAD, Larry D. (1989). Pleistocene dung and the extinct herbivores of the Colorado Plateau, southwestern USA. *Cranium*, 6(1):29-44.
- 4353 \*ehU MEAD, Jim I. and AGENBROAD, Larry D. (1992). Isotope dating of Pleistocene dung deposits from the Colorado Plateau, Arizona and Utah. *Radiocarbon*, 34(1):1-19.
- 4354 \*nvU MEAD, Jim I., AGENBROAD, Larry D., and THEIS, J. H. (1990). *Diet, chronology and nuclear magnetic resonance analysis of late Pleistocene herbivores, western North America: a review. Chronostratigraphy of the Paleolithic in North, Central, East Asia and America*. USSR Academy of Sciences, Novosibirsk, USSR, pp. 213-229.
- 4355 \*ehU MEBRATE, A. (1987). The long-jawed gomphotheres of North America. D. Phil. thesis. University of Kansas.
- 4356 EceB MECIR, Anthony (photographs by Michael Freeman). (1998). Big trouble. *Smithsonian*, 29(6):52-56, 58, 60, 62-63. **Annotation:** "After years of abuse and neglect, Thailand's elephants are in big trouble... In Thailand, only 1,350 elephants still roam free and another 3,800 captive animals there have fallen on hard times" [E/ECM].
- 4357 LdiC MEHREN, K., CRANSHAW, G., HONEYMAN, V., KOLLIAS, G., and WELSCH, B. (1991). Tusk extraction in a large African elephant. *Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991*, pp. 20-25. Burnet Park Zoo, Syracuse, 161 pp.
- 4358 +imB MEIER, Barry. (1992). Tracing illegal ivory: forensic scientists take on smugglers. *New York Times*, October, 1991. **Annotation:** Mammoth ivory is identical in appearance to elephant ivory and traditional dating methods cannot be used because it would destroy the ivory. "The job of unraveling the mystery fell to scientists at the U.S. Fish and Wildlife Service's National Forensics Laboratory in Ashland, Oregon" [E/ECM].
- 4359 LpnB MEISSNER, H. H. (reprinted 1994). Applied aspects of digestive physiology of elephant. In *The African elephant as a game ranch animal* (ed. J. van Heerden and B. L. Penzhorn), pp. 125-135. SAVA [South African Veterinary Association] Wildlife Group, Onderstepoort, South Africa, 192 pp.



- 4360 LncW MEISSNER, H. H., SPREETH, E. B., DE VILLIERS, P. A., PIETERSEN, E. W., HUGO, T. A., and TERBLANCHE, B. F. (1990). Quality of food and voluntary intake by elephant as measured by Lignin Index. South African Journal of Wildlife Research-Suid Afrikaanse Tydskrif Vir Natuurleë Versoek, 20(3):104-110. **Annotation:** Study of free ranging male elephants to obtain information on quality of diet selected during different seasons. It was hoped that determination of the voluntary intake and an estimation of energy requirements could be used to determine carrying capacity on game ranch bordering KNP. Food selection observed visually, feces voided measured *in toto* over 24 hours and digestibility estimated by lignin index. Seasonal effects were significant. A negative association found between digestibility and intake indicating that intake of elephants increased during dry season. Estimates of energy requirements correspond closely with published data [ID-H/M&DR].
- 4361 LdjW MEISWINKEL, R. and BRAACK, L. E. O. (1994). African horsesickness epidemiology: five species of *Culicoides* (Diptera: Ceratopogonidae) collected live behind the ears and at the dung of the African elephant in the Kruger National Park, South Africa. Onderstepoort Journal of Veterinary Research, 61(2):155-170.
- 4362 LciW MELDRUM, Andrew. (1989). Zimbabwe's Campfire Program. Africa Report, 34(6):48-49. **Annotation:** "The theory behind the Campfire program is that when the people get economic gains from the elephant and other wildlife, they will want to grow those populations like a crop" [E/ECM, p. 49].
- 4363 EqrC MELENS, Bruno. (1994). Training for transport. In Proceedings of the Seventh U.K. Elephant Workshop, hosted by Cricket St Thomas Wildlife Park, Somerset, 20th October 1993 (ed. N. G. Spooner and J. A. Whitear), pp. 62-70. Published by North of England Zoological Society.
- 4364 BtqC MELLEN, Jill D. and ELLIS, S. (1996). Animal learning and husbandry training. In Wild mammals in captivity (ed. D. G. Kleiman, M. E. Allen, K. V. Thompson, S. Lumpkin, and H. Harris), pp. 88-99. University of Chicago Press, 639 pp. **Annotation:** Training of elephants in captivity; "free contact," "protected contact," "ankus," "restraint chute," "dressage" [BC].
- 4365 BbjC MELLEN, Jill and KEELE, Mike. (1994). Social structure and behavior. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 19-26. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4366 LdaW MELTZER, D. G. A. (1993). Historical survey of disease problems in wildlife populations: southern African mammals. Journal of Zoo and Wildlife Medicine, 24(3):237-244.
- 4367 LdoW MELTZER, D. G. A. (reprinted 1994). The diagnosis of diseases in elephants (*Loxodonta africana*). In The African elephant as a game ranch animal (ed. J. van Heerden and B. L. Penzhorn), pp. 115-124. SAVA [South African Veterinary Association] Wildlife Group, Onderstepoort, South Africa, 192 pp. **Annotation:** Culling, blood, temperature, biochemistry, nutrition, KNP [MPK].
- 4368 +pvB MENG, J[in.], SHOSHANI, J[eheskel.], and KETTEN, D[arlene.]. (1997). Evolutionary evidence for infrasonic sound and hearing in proboscideans. Journal of Vertebrate Paleontology, Abstracts of Papers, Volume 17, Supplement to Number 3:64A. **Annotation:** Taxa investigated include *Mammuth americanum*, gomphotheres, *Mammuthus primigenius*, *Loxodonta africana*, *Elephas maximus* [JS].
- 4369 LicB MENGEL, P. (ed.). (1993). What is ivory? REF News, 9:2.
- 4370 LewW MERCER, Graham. (1990). The northern Selous. Swara, 13(6):29-30. **Annotation:** Tanzania's oldest and largest game reserve has abundant wildlife [PFH/JMH].
- 4371 LbwW MERCER, G. (1992). Zimbabwe: unassuming Eden of the south. Swara, 15(2):29-30; (4):13-14.
- 4372 LicW MEREDITH, Martin. (1989). Illegal flows of ivory in southern Africa. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 2.7. The Ivory Trade Review Group, Oxford. **Annotation:** Country by country review of well organized ivory traffic in southern Africa that is part of more general contraband system operating throughout region. South Africa is usual destination for ivory including that from Zaire, particularly since closure of Burundi which had been a conduit [ID-H/M&DR].
- 4373 LicW MEREDITH, Martin. (1989). The ivory trade in Congo. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 2.5. The Ivory Trade Review Group, Oxford. **Annotation:** Legal and illegal ivory trade substantial. Government export statistics, as elsewhere, do not agree with those kept by importing countries. Big game hunting permits freely given to those who apply, both residents and outsiders. Significant amount of export no doubt originated in Zaire, smuggling route is well organized and obtaining Congolese permits for export not difficult. Local carving industry does not use significant amount, probably about 2,500 to 3,000 kg per year [ID-H/M&DR].
- 4374 BgzB MERRITT, J. (1991). Requiem for a heavyweight. Modern Maturity, 34(2):56-61.
- 4375 LmwW MERZ, Gunter (1989). Etat actuel des elephants et des gorilles dans le Parc National de Kahuzi-Biega, Zaire. IZCN-conservation de la nature integree au Zaire. **Annotation:** Population of elephants in 1989 of the KBNP and approximately 8,100 with density of 1.5 elephants/sq. km. Ongoing poaching for meat by villagers and general ecology of the park [ID-H/M&DR].
- 4376 LcwW MERZ, Gunter and HOPPE-DOMINIK, Bernd. (1991). Distribution and status of the forest elephant in the Ivory Coast, West Africa. Pachyderm, 14:22-24. **Annotation:** Forest elephants once populated whole west and northwest African region. Until end of 19th century, elephants found in all parts of West African forest zone. Continued human population growth and resultant land requirements impinged on elephant range. By 1985, over 90% of the tropical forests destroyed, the last intact primary rain forest being restricted to the TaiNP. Results from 1988/89 survey of mammals which included population count of 1,520 elephants understood to split up into 20 isolated subpopulations, largest concentration in vicinity of TaiNP [ID-H/M&DR].
- 4377 \*aiU METZ-MULLER, Florence. (1996). A mandible of *Anancus arvernensis* (Proboscidea, Mammalia, Pliocene) with pentalophodont M2's — significance of the pentalophodont grade in *Anancus*. Neues Jahrbuch für Geologie und Paläontologie Monatshefte, 12:709-726. **Annotation:** A mandible of *A. arvernensis* from Dorkovo (Bulgaria) shows that pentalophodonty of M2's exists in Europe as well as in Asia and Africa [E/ECM].
- 4378 \*avU METZ-MULLER, Florence. (1996). A propos des spécimens-types d'*Anancus arvernensis* (Proboscidea, Mammalia): caractéristiques des deux premières dents de lait (d2-d3) chez les gomphothères tétralophodontes. Annales de Paléontologie (Vert.-Invert.), 82(1):27-52 [abstracts in French and English]. **Annotation:** Type-specimens of the Pliocene and Pleistocene species *Anancus arvernensis*, largely

- made up of juvenile dental material, are located. Structures of upper and lower dP2's and dP3's are described and illustrated. A comparison is made with deciduous premolars known in other tetralophodont gomphotheres, which yields information on evolutionary traits of dP2-3's" [E/ECM].
- 4379 EdoC METZLER, A. E., OSSENT, P., GUSCETTI, F., RUBEL, A., and LANG, E. M. (1990). Serological evidence of Herpesvirus infection in captive Asian elephants (*Elephas maximus*). *Journal of Wildlife Diseases*, 26(1):41-49.
- 4380 LaoW MEYER, H. H. D., JEWGENOW, K., and HODGES, J. K. (1997). Binding activity of 5 $\alpha$ -reduced gestagens to the progesterin receptor from African elephant (*Loxodonta africana*). *General and Comparative Endocrinology*, 105(2):164-167.
- 4381 LtqC MICHELL, J. (1991). Elephant-back safari. *Highveld Style*, June 1991:88-91.
- 4382 LmwW MICHELMORE, Frances. (1991). Technical report on the African Elephant Database Project. GRID Case Study Series No. 5. UNEP/EARTHWATCH/GRID.
- 4383 LjwW MICHELMORE, Frances, BEARDSLEY, Karen, BARNES, Richard F. W., and DOUGLAS-HAMILTON, Iain. (1989). Elephant population estimates for the central African forests. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 1.3. The Ivory Trade Review Group, Oxford. **Annotation:** Field data collected since 1985 incorporated into GIS system used to model population estimates in relation to nearest road or large river indicating human habitation [ID-H/M&DR].
- 4384 LiuW MICHELMORE, Frances, BEARDSLEY, Karen, BARNES, Richard F. W., and DOUGLAS-HAMILTON, Iain. (1994). A model illustrating the changes in forest elephant numbers caused by poaching. *African Journal of Ecology*, 32(2):89-99. **Annotation:** GIS was used to analyze field data on abundance of elephant dung-piles in Gabon and Cameroon. Curvilinear relationships between dung-pile density and distance to nearest road or village were used to calculate numbers of dung-piles between contours and total for each country. Comparisons between undisturbed and heavily poached elephant populations suggest that total forest elephant population in central Africa has been reduced by 44% as result of poaching. Forest elephants may be more vulnerable to poaching than previously thought because two-thirds of Congo's elephants live within two day's walk of a road or navigable river [ID-H/M&DR].
- 4385 LnbW MIDGLEY, J. J. and JOUBERT, D. (1991). Mistletoes, their host plants and the effects of browsing by large mammals in Addo Elephant National Park. *Koedoe*, 34(2):149-152.
- 4386 EapC MIHM, F. G., MACHADO, C., and SNYDER, R. (1988). Pulse oximetry and end-tidal CO<sub>2</sub> monitoring of an adult Asian elephant. *Journal of Zoo Animal Medicine*, 19:106-109.
- 4387 \*rhU MIKHELSON, Viktor M. (1992). Cloning mammoths. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 58-59. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London.
- 4388 BapB MIKOTA, Susan and SHOSHANI, Jeheskel. (1994). Elephant necropsy protocol. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 271-284. Indira Publishing House, West Bloomfield (Michigan), 298 pp. **Annotation:** Protocol provides format for systematic collection of information and samples to add to existing knowledge [E/ECM].
- 4389 BapB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). Bibliography. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 225-270. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4390 BapB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). The cardiovascular system. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 107-118. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4391 BdpB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). The causes of death. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 219-224. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4392 BapB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). The endocrine system. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 193-199. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4393 BapB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). The gastrointestinal system. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 95-106. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4394 BopB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). Hematology and serum chemistries. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 51-63. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4395 BapB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). The integument. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 129-135. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4396 BadB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (eds). (1994). Medical management of the elephant. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4397 BapB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). The musculoskeletal system. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 137-150. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4398 BdpB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). Neoplasia. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 217-218. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4399 BapB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). The nervous system. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 201-205. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4400 BrpB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). Pediatrics. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 81-82. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4401 BmaB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). Physiological and population data. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 285-286. Indira Publishing House, West Bloomfield (Michigan), 298 pp. **Annotation:** *Loxodonta africana*, *Elephas maximus*, captivity, size, weight, longevity, physiology, respiration, temperature, teeth, tusks, birth, height, weight, life span, mean arterial blood pressure, heart rate, respiratory rate, rectal temperature,

- dental formula, largest recorded tusks, wild and captive populations, first recorded captive births [E/ECM].
- 4402 BarB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). The reproductive system. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 159-186. Indira Publishing House, West Bloomfield (Michigan), 298 pp. **Annotation:** *Loxodonta africana*, *Elephas maximus*, captivity, estrus, endocrinology, gestation, disease, musth [MPK].
- 4403 BapB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). The respiratory system. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 119-122. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4404 BadB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). Surgery. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 83-85. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4405 BdpB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). Tuberculosis and tuberculin testing. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 123-128. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4406 BadB MIKOTA, Susan K., SARGENT, Eva Lee, and RANGLACK, G. S. (1994). The urogenital system. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 187-192. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4407 BdaB MIKOTA, Susan K., SARGENT, Eva Lee, RANGLACK, G. S., and CLARK, Harold. (1994). Rheumatoid arthritis. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 151-157. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4408 BdpB MIKOTA, Susan K., SARGENT, Eva Lee, RANGLACK, G. S., and MCCULLAR, Michael. (1994). Dentistry. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 87-94. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4409 BoqB MIKOTA, Susan K., SARGENT, Eva Lee, RANGLACK, G. S., and PAGE, C. Douglas. (1994). Anesthesia and chemical restraint. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 41-49. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4410 BdqC MIKOTA, Susan K., SARGENT, Eva Lee, RANGLACK, G. S., and PAGE, C. Douglas. (1994). Husbandry and management. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 35-39. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4411 BdqB MIKOTA, Susan K., SARGENT, Eva Lee, RANGLACK, G. S., and PAGE, C. Douglas. (1994). Pharmacology and toxicology. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 65-67. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4412 BaoB MIKOTA, Susan K., SARGENT, Eva Lee, RANGLACK, G. S., and RASMUSSEN, L. E. L. (1994). The sensory and communication systems. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 207-215. Indira Publishing House, West Bloomfield (Michigan), 298 pp. **Annotation:** *Loxodonta africana*, *Elephas maximus*, disease, captivity, anatomy, physiology, thermoregulation, temporal gland secretion, vocalization, trunk, olfaction, vomeronasal organ, behavior, urine, endocrinology [MPK].
- 4413 BidB MILES, A[ibert] E[dward]. W[illiam]. and GRIGSON, C[aroline]. (eds). (1990). Colyer's variations and diseases of the teeth of animals (2nd edition). Cambridge University Press, xvi + 672 pp.
- 4414 LebW MILLER, Joanna. (1996). Jumbo horticulture. Chester Zoo Life, Summer:16. **Annotation:** Student study of forest elephants as seed dispersers in Kakum National Park, Ghana, West Africa [SLS].
- 4415 LcoW MILLER, Maxine F. (1994). Large African herbivores, bruchid beetles and their interactions with *Acacia* seeds. Oecologia, 97(2):265-270. **Annotation:** Herbivores studied were elephants, giraffes, kudus, springbok, B. impala, impala, steenbok, gray duiker, ostrich [ECM].
- 4416 LsjW MILLER, Maxine F. (1995). *Acacia* seed survival, seed germination and seedling growth following pod consumption by large herbivores and seed chewing rodents. African Journal of Ecology, 33(3):194-210. **Annotation:** *Acacia* pod ingestion by captive large herbivores caused substantial seed destruction in South Africa. The number of *Acacia* seeds surviving passage through the gut and potentially germinating usually increased with large mammal body mass [ID-H/M&DR].
- 4417 LjwW MILLER, Maxine F. (1996). Dispersal of *Acacia* seeds by ungulates and ostriches in an African savanna. Journal of Tropical Ecology, 12:345-356. **Annotation:** From the Abstract: "The dispersal of African *Acacia* seeds in the presence and absence of large mammalian herbivores and ostriches was assessed in a savanna ecosystem in South Africa" [E/ECM].
- 4418 LnbW MILLER, Maxine F. and COE, Malcolm J. (1993). Is it advantageous for *Acacia* seeds to be eaten by ungulates? Oikos, 66(2):364-368.
- 4419 \*ewU MILLER, N. G. (1988). The late Quaternary Hiscock Site, Genesee County, New York: paleoecological studies based on pollen and plant macrofossils. In Late Pleistocene and early Holocene paleoecology and archeology of the eastern Great Lakes region (ed. R. S. Laub, N. G. Miller, and D. W. Steadman), pp. 83-93. Bulletin of the Buffalo Society of Natural Sciences, 33:1-316. **Annotation:** Floral remains associated with *Mammot americanum* at this site include *Carya cordiformis*, *Corylus* sp., *Fagus grandifolia*, *Fraxinus* sp., *Juglans cinerea*, *Larix laricina*, *Picea glauca*, *Pinus banksiana*, *P. strobus*, *Quercus* sp., *Tilia* sp., and *Ulmus* sp. [JS].
- 4420 LcwW MILLER, Pat. (1991). Horizons: Kenya. Swara, 14(1):21.
- 4421 LcwW MILLER, R. I. (ed.). (1994). Mapping the Diversity of Nature. Chapman & Hall, London, 218 pp.
- 4422 \*ehU MILLER, S. J., AKERSTEN, W. A., HEARST, J., PINSOF, J., and MCCRADY, A. (1988). A southeastern Idaho upland mastodon site. Geological Society of America, Rocky Mountain Section, Abstracts with Programs, 20(6):443.
- 4423 \*ehU MILLER, W. E. (1987). *Mammot americanum*, Utah's first record of the American mastodon. Journal of Paleontology, 61(1):168-183.
- 4424 \*ehU MILLER, W. E. (1990). A *Rhynchotherium* skull and mandible from southeastern Arizona. Brigham Young University, Geology Studies, 36:57-67.
- 4425 LicW MILLIKEN, Tom. (1989). The Japanese ivory trade: tradition, CITES and the elusive search for sustainable utilisation. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 3.8. The Ivory Trade Review Group, Oxford. **Annotation:** Ivory trade and industry in Japan, largest raw ivory consumer. Data from Customs, CITES and TRAFFIC records, infor-

- mation from national ivory importers association. Japanese market tends to require larger tusks than average. Estimated number of elephants required for gross raw ivory imports over past decade ranged from about 3,100 to about 23,000 yielding 79,122 kilos and 475,666 kilos in 1986 and 1983, respectively [ID-H/M&DR].
- 4426 LicW MILLIKEN, Tom. (1991). South Korea re-visited: the trade in rhino horn and ivory. *Pachyderm*, 14:25-27 (from report by Tom Milliken).
- 4427 LikW MILLIKEN, Tom. (1994). The African elephant: another round at COP9. *Swara*, 17(5):16-18. **Annotation:** Situation facing ninth meeting of CITES which is that distribution and population are not uniform through range states. Some states, particularly in southern area, need population control. Economics of management is problem throughout continent and SACIM countries propose that utilization of products, other than ivory gleaned from culled populations could alleviate the situation. Sudan's proposal focuses on eliminating ivory stockpile [ID-H/M&DR].
- 4428 LicW MILLIKEN, Tom. (1994). Current trade in, demand for and stockpiles of ivory in range and consumer states. In *The African elephant in the context of CITES 19-23 September, 1994 Kasane, Botswana*. Part B Background Papers, London, United Kingdom. Department of the Environment, pp. 49-57. **Annotation:** Information from two ongoing projects: assessment of ivory seizures or confiscations which have occurred since 1989, and assessment of ivory stockpiles held in Africa. Data on Bad Ivory Database (BID) contains over 2,500 individual records on ivory seizures in 30 countries, majority involving confiscations of worked ivory products illegally imported as personal effects. Major transactions are those involving over 50 kg or 15 tusks, numbered about 100 and dealt with total weight of 34,724 kg. At time of ivory ban, large quantities of ivory were held by government authorities or government-authorized dealers in African range states. Caldwell and Luxmoore's 1990 (Reference no. 3001) estimation suggested minimum of 271 tons in 13 African countries and additional 683.7 tons in 7 other countries. Rate of Africa's ivory stockpiles increase needs to be seriously assessed. Their existence poses law enforcement and security problems, is also issue of economic and political importance [ID-H/M&DR].
- 4429 LkcW MILLIKEN, Tom. (1994). A preliminary assessment of the elephant hide trade from South Africa. In *The African elephant in the context of CITES 19-23 September, 1994 Kasane, Botswana*. Part B Background Papers, London, United Kingdom. Department of the Environment, 71-76. **Annotation:** Economy and sustainability of elephant hide trade in southern Africa, which is largely based on culling exercises carried out in KNP and in areas of high population in Zimbabwe and northern Botswana, though most of the latter country's exported hides were from neighboring countries and had been tanned there. Impact of hide trade on status of African elephant has been negligible. It can be demonstrated that production of hides in South Africa and Zimbabwe has consistently represented a sustainable offtake [ID-H/M&DR].
- 4430 LicW MILLIKEN, Tom. (1996). Monitoring the ivory trade and ivory stocks in the post-CITES ban period. *Pachyderm*, 22:77.
- 4431 LicW MILLIKEN, Tom. (1997). African elephant and the June 1997 CITES meeting. *The Rhino & Elephant Journal*, 11:8-12.
- 4432 LicW MILLIKEN, Tom. (1997). The status of ivory stocks in Africa 1990-1996. *TRAFFIC*, 16(3):93-106. **Annotation:** Some 462 tons of ivory legally held in 27 African countries. Unreported or illegal stocks may push total over 600 tons [E/ECM].
- 4433 LicW MILLIKEN, Tom and MELVILLE, David. (1989). The Hong Kong ivory trade. In *The ivory trade and the future of the African elephant* (coord. S. Cobb), Vol. 2, Technical Reports, Section 3.9. The Ivory Trade Review Group, Oxford. **Annotation:** Background of ivory trade in Hong Kong through which significant amount of ivory passes for resale and export. Ivory imports and exports by firm presented in tables, number of registered factories over past few years noted. Number of elephants required for gross raw ivory imports over last decade estimated between 23,927 in 1986 to 74,752 in 1983 yielding a volume of 179,033 kilos and 633,804 kilos, respectively [ID-H/M&DR].
- 4434 LckW MILNE, Ian. (1996). On the tusks of dilemma. *Keeping track*, October/November:6. **Annotation:** It is less stressful on elephants in KNP to kill them than to capture and translocate them [E/ECM].
- 4435 \*yzU MILNER, Richard. (1993). The living museum: new days for old knights. *Natural History*, 102(10):20-25. **Annotation:** Restoring mammoth paintings of Charles Knight [JLP].
- 4436 BicW MILNER-GULLAND, E. J. (1993). An econometric analysis of consumer demand for ivory and rhino horn. *Environmental & Resource Economics*, 3:73-95. **Annotation:** Econometric model is used to describe consumer demand for ivory and rhino horn, using Hendry research methodology. Demand for ivory in Japan was found to be primarily income led, with elasticity of 0.75. International trade restrictions have had a profound effect on ivory market since 1985 [ID-H/M&DR].
- 4437 LieW MILNER-GULLAND, E. J. (1994). The exploitation of elephants for ivory - an historical perspective. In *Proceedings of the Seventh U.K. Elephant Workshop, hosted by Cricket St Thomas Wildlife Park, Somerset, 20th October 1993* (ed. N. G. Spooner and J. A. Whiter), pp. 38-61. Published by North of England Zoological Society.
- 4438 BihW MILNER-GULLAND, E. J. and BEDDINGTON, John R. (1993). The exploitation of elephants for the ivory trade: an historical perspective. *Proceedings of the Royal Society of London, B.*, 252:29-37. **Annotation:** Two major factors likely caused recent elephant population declines: carrying capacity reductions and hunting for ivory. Model developed to disentangle effects of these two factors on elephant population dynamics since 1814. Model suggests carrying capacity reductions major cause of elephant declines in 19th century and first half of 20th century, but since 1950, hunting for ivory is cause of increasingly rapid decline [ID-H/M&DR].
- 4439 LujW MILNER-GULLAND, E. J. and BEDDINGTON, John R. (1993). The relative effects of hunting and habitat destruction on elephant population dynamics over time. *Pachyderm*, 17:75-90. **Annotation:** Over last 200 years the ecology of Africa has changed substantially. One change is decline of continental population of African elephant. Two major contributing factors: reductions in carrying capacity for the species due to habitat change, and hunting for ivory. Relative importance of habitat loss versus hunting in driving population decline at issue for several years. Attempts to tease out effects of two factors on elephant numbers over last two centuries, and effects of each for future [ID-H/M&DR].
- 4440 LcuW MILNER-GULLAND, E. J. and LEADER-WILLIAMS, Nigel. (1992). A model of incentives for the illegal exploitation of black rhinos and elephants: poaching pays in Luangwa Valley, Zambia. *Journal of Applied Ecology*, 29(1):388-401. **Annotation:** Models relationships between financial gains, detections and penalties for poaching rhino and elephants in Luangwa Valley during 1979-1985. Impact of sentencing strategies on decisions of poachers in relation to changes in detection rate, penalty and economic variables explored.

- Penalty that varies with output of poacher more effective against poaching than fixed penalty. Probability of capture is factor in poacher's decision to hunt. Incentives to hunt are modeled for open access situation, industry structure for local poacher, and for monopolist employing organized gangs. Local poachers respond to local investment schemes, but deterrence of organized gangs can only be achieved with improved law enforcement operations [ID-H/M&DR].
- 4441 LiuW MILNER-GULLAND, E. J. and MACE, Ruth. (1990). The impact of the ivory trade on the African elephant *Loxodonta africana* population as assessed by data from the trade. Biological Conservation, 55(2):215-229. **Annotation:** Total quantity and tusk sizes of African elephant ivory entering international trade over the last decade. Investigates how different levels of hunting and different strengths of selectivity by hunters in favor of larger tusks would produce different ivory tonnages and tusk size distributions in the trade. Removal of 12-13% of elephants each year, combined with hunters' preference for elephants with larger tusks, would be expected to produce quantities of ivory and tusk size distributions compatible with those reported in international trade [ID-H/M&DR].
- 4442 BiuW MISHKIN, Stephen. (1995). CITES up-date. Swara, 18(1):35.
- 4443 BrqC MISHKIN, S. R. (ed.). (1994). Elephants in crowded Kenya reserve first to receive birth control vaccine. African Wildlife Update, 3(1):3. **Annotation:** Three female elephants were injected with experimental vaccine that is expected to bring on an early menopause [MPK]. See Reference nos. 2963, 2995, 4131, 4777, 4786, 5098, 5527 [ECM].
- 4444 LmjW MISHKIN, S. R. (ed.). (1994). Future bright for Senegal's elephants. African Wildlife Update, 3(1):3. **Annotation:** There were around 450 elephants in 1960 but poaching reduced numbers to 28 in 1991 [MPK].
- 4445 LiuU MISOI, J. K. (1991). Society highlights: Chairman's speech to the AGM. Swara, 14(1):32-34.
- 4446 LuiW MISOI, J. K. (1993). The chairman's speech to AGM. Swara, 16(1):11-12.
- 4447 EwcW MITHAPALA, S. FERNANDO, S. B. U., and SEIDENSTICKER, J. (1992). Habitat fragmentation and the genetic status of leopards and elephants in Sri Lanka. Proceedings of the International and Interdisciplinary Symposium, Ecology and Landscape Management in Sri Lanka (ed. W. Erdelen, C. Preu, N. Ishwaran, and C. M. Madduma Bandara). Margraf Scientific books, Welkersheim, Germany.
- 4448 \*uhU MITHIN, S. (1993). Simulating mammoth hunting and extinction: implications for the late Pleistocene of the Central Russian Plain. In Hunting and animal exploitation in the later Palaeolithic and Mesolithic of Eurasia (ed. Gail L. Peterkin, Harvey M. Bricker, and Paul Mellars), pp. 163-178. American Anthropological Association, Washington, D.C., vii + 248 pp.
- 4449 LcwW MKANDA, Francis X. (1992). The effects of inadequate fencing along the eastern boundary of Kasungu National Park, Malawi. Nyala, 15(2):63-68.
- 4450 LiuW MKANDA, Francis X. (1993). Status of elephants and poaching for ivory in Malawi: a case study in Liwonde and Kasungu National Parks. Pachyderm, 16:59-61. **Annotation:** AfESG meeting, Victoria Falls, Zimbabwe, Nov. 17th-22nd 1993: scientific presentations. Post ivory trade ban period saw drop in poaching in Malawi. In 1991 an assessment of elephant distribution, numbers and mortality was done. Elephants occupy three recognizable ranges of which two cross international boundaries. Data from Liwonde National Park show elephant population remained stable since 1978. The population in KaNP most probably declined due to crop protection shooting and poaching [ID-H/M&DR].
- 4451 \*avU MOGGI-CECCHI, Jacopo. (1995). Aspects of dental biology: palaeontology, anthropology and evolution. International Institute for the Study of Man, Florence (Italy), 460 pp. **Annotation:** Proboscideans on pp. 27-32; see Reference no. 3996 [ECM].
- 4452 \*vwU MOL, Dick. (1989). Fossil Proboscidea from the North Sea bottom between England and The Netherlands. Abstracts of Papers and Posters Fifth International Theriological Congress, Rome, 22-29 August 1989, Volume I:154-155.
- 4453 \*avU MOL, Dick. (1992). Een bijzondere mammoetschedel uit Valburg. Grondboor & Hamer, 1:18-23 [summary in English]. **Annotation:** Almost complete skull (lower left M3 missing) of late Pleistocene *Mammuthus primigenius* [53 ( $\pm$ 2) years old] was excavated in The Netherlands. Skull is exhibited at the Schwanenturm Geological Museum, Kleve, The Netherlands [E/ECM].
- 4454 \*awU MOL, Dick. (1993). Her ijstijdlandschap van de zuidelijke Noordzee. Grondboor en Hamer (Nederlandse Geologische Vereniging), 45(1):9-14.
- 4455 \*vwU MOL, Dick. (1994). Association pour l'étude et la protection du mammoth. Cranium, 11(2):75-76 [in Dutch].
- 4456 \*evU MOL, Dick. (1995). Bijzondere vindplaatsen: Berelekh, een Siberisch Mammoetkerkhof. Cranium, 12(1):33-37 [in Dutch]. **Annotation:** Excavations in early seventies on banks of Berelekh (Siberia) yielded large number of mammoth remains. Permafrost also revealed carcass of wolverine and a willow grouse. Finds date from end of last Ice Age [E/ECM].
- 4457 \*ahU MOL, Dick. (1995). Over dwergolifanten en dwergmammoeten. Cranium, 12(1):38-42 [in Dutch]. **Annotation:** Dwarfism in elephants known from Mediterranean islands and South East Asia. Various species of dwarfed *Stegodon* found in Indonesian archipelago. The mammoth of Wrangel (Northeastern Siberia) also considered a dwarf. But without finds of post-cranial elements there is reasonable doubt if this is true. Spectacular excavation on Channel Islands (U.S.A.) in 1994 yielded almost complete skeleton of dwarf mammoth *Mammuthus exilis* [E/ECM].
- 4458 \*gvU MOL, Dick. (1996). Mammoet-conferentie. Cranium, 13(1):80-82 [in Dutch, captions in English]. **Annotation:** Report on the Mammoth Conference October 16-22, 1995 [JS].
- 4459 \*avU MOL, Dick and AGENBROAD, Larry. (1992). Over het borstbeen (sternum) van de mammoet. Cranium, 9(1):11-16.
- 4460 \*avU MOL, Dick and AGENBROAD, Larry. (1994). Metapodials and shoulder height of *Mammuthus columbi* compared with Eurasian *Mammuthus* species. In The Hot Springs Mammoth Site: a decade of field and laboratory research in paleontology, geology, and paleoecology (ed. L. D. Agenbroad and J. I. Mead), pp. 224-252. The Mammoth Site of South Dakota, Hot Springs, 457 pp.
- 4461 \*avU MOL, Dick and AGENBROAD, Larry. (1994). On the sternum of the Columbian mammoth (*Mammuthus columbi* [Falconer] 1857) from the Mammoth Site of Hot Springs, South Dakota. In The Hot Springs Mammoth Site: a decade of field and laboratory research in paleontology, geology, and paleoecology (ed. L. D. Agenbroad and J. I. Mead), pp. 215-223. The Mammoth Site of South Dakota, Hot Springs, 457 pp.
- 4462 \*avU MOL, Dick and KERKHOFF, N. (1991). Nieuwe tongbeenfragmenten van pleistocene zoogdieren. Cranium, 8(1):15-19. **Annotation:** Includes thyrohyoideum of *Mammuthus primigenius* from The Netherlands [ECM].

- 4463 \*awU MOL, Dick J. and VAN ESSEN, J. A. (1990). *Mammot borsoni* from The Netherlands. Lutra, 33(2):183-186.
- 4464 \*vaU MOL, Dick and VAN ESSEN, Hans. [J. A.]. (1992). De mammoet: Sporen uit de IJstijd. Uitgeverij BZZTôH, 's-Gravenhage, The Netherlands (copyright date 1991).
- 4465 \*grU MOL, Dick, AGENBROAD, Larry D., and MEAD, Jim I. (1993). Mammoths. Hot Springs, South Dakota Mammoth Site, 16 pp. **Annotation:** "A brief introduction and overview of mammoths in the Northern Hemisphere" [E/JS].
- 4466 \*hvU MOL, Dick, VAN DEN BERGH, Gert D., and DE VOS, John. (1999). Fossil proboscideans from The Netherlands, the North Sea and the Oosterschelde Estuary. Deinsea, 6:119-145. **Annotation:** See Reference no. 3720 for details about "Deinsea 6" [ECM/JS].
- 4467 \*vwU MOL, Dick, VERHAGEN, Anton, and VAN ESSEN, Hans [J. A.]. (1988). De Mammoet en de prehistorische mens van Siegsdorf. Cranium, 5(1):57-64 [summary in English]. **Annotation:** Account of a mammoth excavation and reconstruction project in Siegsdorf, West Germany [ECM].
- 4468 \*vwU MOL, Dick, DE VOS, John, VAN DEN BERGH, Gert D., and SONDAAR, Paul Y. (1996). The taxonomy and ancestry of the fossil elephants of Crete: faunal turnover and a comparison with proboscidean faunas of Indonesian islands. In Pleistocene and Holocene fauna of Crete and its first settlers (ed. David S. Reese), pp. 81-98. Prehistory Press, Madison (Wisconsin), 422 pp.
- 4469 \*vwU MOLEMA, J. (1991). De vondst van de maand: Mammoetvondsten uit de gemeente Westerbork. Cranium, 8(2):97-98.
- 4470 EqjC MOLYNEUX, P. (1995). Asian elephants at Chester Zoo: their biology and management with reference to environmental enrichment techniques. City and Guilds Zoo Animal Management Thesis, 41 pp.
- 4471 EebW MONDAL, G. S. (1988). Control of wild elephant with a new technique (in Bengali). Banabithi, 1(4). West Bengal Forest Department, Calcutta.
- 4472 LiuW MONTGOMERY, Sy. (1988). A crisis in East Africa. Los Angeles Times, [4 April, Part II]: page 5.
- 4473 LceB MOOLMAN, H. J. and COWLING, R. M. (1994). The impact of elephant and goat grazing on the endemic flora of South African succulent thicket. Biological Conservation, 68(1):53-61. **Annotation:** Vegetation community succulent thicket is important center of endemism for succulents and geophytes in vicinity of AENP. Inside the Reserve, it is threatened by elephants, outside by goats. Elephant grazing has moderate effect on plants and not reduced rich Crassulaceae flora in shrub microsites. Endemics were present in ungrazed sites but fewer recorded (63%) in elephant and even less (58%) in goat grazed study areas [ID-H/M&DR].
- 4474 BgcB MOORE, Don. (1992). A curator's historical perspective on the elephant management program at Syracuse. The 13th International Elephant Workshop, Atlanta, 1992, pp. 120-123. Zoo Atlanta, Georgia, 151 pp.
- 4475 LiuW MOORE, H. (1995). To save the elephant. Environmental Investigation Agency News Update [Winter 1994-95], 5:4-5. **Annotation:** Investigative work which led up to ivory ban in 1989 and aspects of its apparent success [ID-H/M&DR].
- 4476 LcqC MOORE, Randall J. (reprinted 1994). Can the African elephant earn its keep? In The African elephant as a game ranch animal, pp. 102-105. SAVA [South African Veterinary Association] Wildlife Group, Onderstepoort, South Africa, 192 pp.
- 4477 LqtW MOORE, Randall J. and MUNNION, Christopher. (1989). Back to Africa. Southern Book Publishers (Pty) Ltd., Johannesburg, 155 pp. **Annotation:** A noble effort to return three ["Tschombai" (male) "Durga" (female) and "Owalla" (female)] wild born, captive raised elephants to Africa. It was hard to keep myself focused on what I originally believed was his actual motivation [RAC]. See Reference nos. 1961, 1962, 1963, 1964, 1965 [MPK].
- 4478 EcwW MORAST, D. (1996). Saving Asian elephants. Wildlife Watch, 4(2):2. **Annotation:** Conservation in Sri Lanka [MPK].
- 4479 LicW MORELL, Virginia (1990). Running for their lives. International Wildlife, 20(3):4-13. **Annotation:** Elephant populations and ivory trade circa 1990 subsequent to CITES meeting which banned ivory trade as step towards conservation. Interviews with Richard Leakey and Costa Mlay, Directors of Wildlife in Kenya and Tanzania, respectively, researchers Iain Douglas-Hamilton and Cynthia Moss in eastern Africa and Russell Taylor in Zimbabwe. Graphic illustration of range shrinkage since 1600. Population estimates 1.3 million in 1979 and 609,000 in 1989. Lower mean tusk weight on the market from 22 pounds in 1979 to 10 in 1988 and rise in average market price of \$22 per pound in 1983 to \$82 per pound in 1988 [ID-H/M&DR].
- 4480 \*vaU MORLAN, Richard E. (1996). Late and middle Pleistocene vertebrate fossils from Old Crow Basin, Locality CRH 15, northern Yukon Territory. In Palaeoecology and palaeoenvironments of late Cenozoic mammals. Tributes to the career of C. S. (Rufus) Churcher (ed. K. M. Stewart and K. L. Seymour), pp. 482-521. University of Toronto Press, Toronto, 675 pp. **Annotation:** Order Proboscidea, family Elephantidae, genus Mammuthus, is on pages 507-508 [ECM].
- 4481 BqtC MORRIS, Holly. (1995). Love those elephants: zoo keepers become special friends with the animals they care for. The Atlanta Journal/The Atlanta constitution, Monday, August 21, 1995:E3. **Annotation:** News for Kids checked in on three of 22 keepers at Zoo Atlanta. While they care for lots of animals, they have very special feelings for the elephants [E/ECM].
- 4482 BciB MORRIS, Jacqui. (1990). Review of "International Trade in Endangered Species: a guide to CITES" by David S. Favre, published 1989 by Martinus Nijhoff Publishers, Dordrecht, The Netherlands, 415 pp. Oryx, 24(2):115. **Annotation:** Ideal reference for a complete explanation of CITES or a means of checking on specific issues [E/SLS].
- 4483 BciB MORRIS, Jacqui. (1998). Briefly: CITES update. Oryx, 32(3):176. **Annotation:** Mauritania became the 144th Party to accede to the treaty, going into effect 11 June 1998 [E/SLS].
- 4484 LjbW MOSS, Cynthia J. (1989). The African elephant. Portraits in the wild: animal behaviour in East Africa (3rd edition). Elm Tree Books, London, 371 pp. **Annotation:** Early 'naturalists' shot animals and sent skeletons and hides to museums in Europe and America. Chapter 1 (pages 1-38) is entitled "The African Elephant". Biologists such as I. O. Buss examined kills of control programs of Uganda Game Department, studied live elephants. Iain Douglas-Hamilton pioneered four year study of elephants in LMNP, similar work by Moss in ANP. Elephant family, kinships and life history from birth, maturity, mating to death through disease or poaching; cf. Reference no. 0043, and 2082 [ID-H/M&DR].
- 4485 LlwW MOSS, Cynthia J. (1989). Tarangire National Park elephant age structure survey. African Wildlife Foundation, Nairobi, 28 pp. **Annotation:** Group size composition and age structure of elephants. Methodology from Amboseli Elephant Research Project. Purpose of survey to get information on elephant biomass for land use study. Additional information indicated young, growing population

- recovering from period of heavy poaching [ID-H/M&DR].
- 4486 BicB Moss, Cynthia J. (1990). CITES 1989: a personal view. Swara, 13(1):8-12. **Annotation:** Commentary from an elephant researcher of 22 years on the 1989 meeting which produced the ivory trade ban; saving elephants "...a global responsibility and the world must join in the effort" (E/SLS). Battle that preceded CITES vote described. Contentious issue was to transfer African elephant from Appendix II to Appendix I of CITES convention declaring the species endangered and halting international trade in its products. Proposal advanced by countries whose elephants were threatened by poaching, opposed by countries where elephant population was on an increase [ID-H/M&DR].
- 4487 LmwW Moss, Cynthia J. (1990). Elephants in Tarangire. Pachyderm, 13:26-30. **Annotation:** The park, covering 2,600 sq. km, has estimated population of 2,319. Elephants moved into Park and surrounding Lolkisale Game Controlled Area and Simanjaro Plains as a result of poaching and harassment in other areas. Poaching of TaNP populations severe in 1970s with carcass ratio of 32% reported for 1977, this had decreased to 6.7% by 1988. Age and sex structure of elephant population in TaNP ecosystem covering about 20,500 sq. km supporting population of about 6,110 [ID-H/M&DR].
- 4488 LrbW Moss, Cynthia J. (1990). The young ones. BBC Wildlife, 8(11):738-744. **Annotation:** Imagine growing up in a family where your mother, sisters, aunts and cousins lavish all their care and attention on you. For elephants, such an upbringing produces not spoiled children but well adjusted adults [ID-H/M&DR].
- 4489 LmjW Moss, Cynthia J. (1991). Chobe National Park elephant age structure survey. African Wildlife Foundation, Nairobi. A report to the Department of Wildlife and National Parks, Government of Botswana, 24 pp. **Annotation:** Used methodology of demography and population dynamics assessment from Amboseli's long term elephant research project. Purpose: to devise method of aging calves under 3 years. Status and age structure of population assessed to compare it with other areas. Aging technique devised. Indicated healthy growing population, not seriously affected by poaching [ID-H/M&DR].
- 4490 LrbW Moss, Cynthia J. (1992). Elephant calves: the story of two sexes. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 106-113. Rodale Press, Emmaus, Pennsylvania, 240 pp. Also, Simon & Schuster, London. **Annotation:** Reproduced from "The young ones" by Cynthia Moss in BBC Wildlife, 18(11), 1990. Outlines family group relationships in ANP, development of male and female calves and reproduction of offspring [ID-H/M&DR].
- 4491 LrjW Moss, Cynthia J. (1994). Some reproductive parameters in a population of African elephants, Loxodonta africana. In Proceedings of the second international NCRR (National Centre for Research in Reproduction) conference on 'advances in reproductive research in man and animals (ed. Charanjit Singh Bambra), pp. 284-292. Institute of Primate Research, National Museums of Kenya, Nairobi.
- 4492 LcrW Moss, Cynthia J. (1995). A case for the protection of Amboseli's bulls. Swara, 18(2):18-21. **Annotation:** A scientific case for complete protection of ANP population and older bulls in particular [E/ECM].
- 4493 LujW Moss, Cynthia J. (1995). Elephants slaughtered. HSUS News, 40(2):23-27. **Annotation:** In 1994, three large ANP bull elephants killed in designated hunting area in Tanzania, near Kenya border, by foreigners with valid hunting licenses. See Reference nos. 2951, 5745 [E/ECM].
- 4494 LmbW Moss, Cynthia J. (1996). Getting to know a population. In Studying elephants (ed. K. Kangwana), pp. 58-74. Technical Handbook Series 7, African Wildlife Foundation, Nairobi, Kenya, 178 pp. **Annotation:** Identification, aging by analysis of teeth and assessment of body size and appearance, and setting up and maintenance of records [ID-H/M&DR].
- 4495 LucW Moss, Cynthia J. (1997). In memory to Tuskless. African Wildlife News, 32(3):4.
- 4496 LucW Moss, Cynthia J. (1997). Tuskless: an Amboseli execution raises questions about Kenya's conservation priorities. Swara, 20(3):25-26. **Annotation:** Outside ANP, a Maasai's cow was killed by an elephant named "Tuskless". Warden and rangers sent to kill offending elephant, the 35 year old matriarch of herd was shot. Better way is to promote and fund scheme to compensate for cows killed. Shooting elephants for killing of cattle is dangerous and negative approach [E/ECM].
- 4497 LkqC Moss, Cynthia J. (1999). Thirty baby elephants. Animal Watch [published by the American Society for the Prevention of Cruelty to Animals], 19(1):21-23. **Annotation:** In 1998, 30 calves from 2 to 7 years old were violently, but legally, taken from their families in private reserve Tuli Block in Botswana for sale to foreign buyers. South Africa's National Council of Society for the Prevention of Cruelty to Animals, deeply disturbed by facility where calves were chained and "trained", filed cruelty charges against owner, Riccardo Ghiazza [E/ECM]. See Reference nos. 3868, 3872, 3873, 3874, 4905, 5420 [MPK].
- 4498 BbgW Moss, Cynthia J. and COLBECK, Martyn. (1993). Echo's entourage. BBC Wildlife, 11(1):34-38 [+ supplement: the elephant album, 16 pp.]. **Annotation:** Photos of: resting trunk on tusk; mother ("Grace") carrying a premature calf with tusks and trunk; mating (copulation); 'pandemonium'; birth; musth-males fighting [MPK].
- 4499 LnsW MOUTON, Shona. (1988). Scats can be fascinating! African Wildlife, 42(6):341. **Annotation:** Seeds germinate in elephant dung (photo by A. Bannister) [MPK].
- 4500 LcjW MUDZINGWA, Zerubabel. (1993). CITES clashes with Zimbabwe's ecological set-up. Southern Africa Political and Economic Monthly, 7(1):24-25.
- 4501 LchW MULDER, Monique Borgerhoff, SIEFF, Daniela, and MERUS, Momoya. (1989). Disturbed ancestors: Datoga history in the Ngorongoro crater. Swara, 12(2):32-35. **Annotation:** Researchers made a pilgrimage which shed light on the relationship between pastoralists and wildlife during the last century [E/SLS].
- 4502 LcuW MULDER, P. F. S. (reprinted 1994). The African elephant: legislation and management. In The African elephant as a game ranch animal, pp. 48-52. SAVA [South African Veterinary Association] Wildlife Group, Onderstepoort, South Africa, 192 pp. **Annotation:** Symposium on African Elephant as Game Ranch Animal, KNP, April 29-30, 1991 [MPK].
- 4503 BqtC MULLAN, B. and MARVIN, G. (1987). Zoo Culture. Weidenfeld & Nicolson, London, xix + 171 pp.
- 4504 EbcW MUNAWEERA, D. P. (1998). Human-elephant conflict management in Handapanagala. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), p. 11. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.

- 4505 LesW MUNDY, P[eter]. J. and HAYNES, Gary. (1996). Oxpeckers and elephants. *Ostrich*, 67:85-87. **Annotation:** Despite repeated reports that oxpeckers do not perch on African elephants, authors reported, with photos, that yellow-billed oxpecker (*Buphagus africanus*) and red-billed oxpecker (*Buphagus erythrorhynchus*) use elephants as hosts. When elephants are in poor condition, they become much more suitable to oxpeckers; cf. Reference no. 3885 [JS].
- 4506 LuqC MUNNION, C. (1994). The ultimate safari. *African Sporting Gazette*, 2:56-60. **Annotation:** Regarding Randall Moore and his "elephant-back" safaris. *Loxodonta africana*, captivity, working, Okavango, Botswana [MPK].
- 4507 BdpB MUNSON, Linda, KARESH, William B., SHIN, Sang, BALKE, Jennifer, CALLE, Paul, CAMBRE, Richard C., CRANFIELD, Michael, CITINO, Scott B., and JUNGE, Randall E. (1995). Lymphoid follicular vulvitis in African (*Loxodonta africana*) and Asian (*Elephas maximus*) elephants. *Journal of Zoo and Wildlife Medicine*, 26(3):33-358.
- 4508 LjwW MUORIA, Paul Kimata. (1995). Elephant (*Loxodonta africana* Blumenbach) abundance, movements and crop raiding in Nyeri District, Kenya. MSc, Moi University, xvi, 104 pp.
- 4509 LcbW MURINDAGOMO, F. (1992). Rates of tree loss and regrowth of Brachystegia woodland. In *Elephant management in Zimbabwe* (2nd edition). Dept of National Parks and Wild Life Management, Harare, Zimbabwe, 69 pp. **Annotation:** Trees along southern boundary of SWRA measured to compare elephant damage in Miombo woodland inside and outside Reserve. Difference between tree heights in the mature age is clear-cut, study noted loss per annum of trees over 5 m within the Research area. Elephant impact on the regeneration and recruitment classes is more difficult to assess than for the mature age classes. High frequency of young trees inside fence supports view that there is strong regeneration and recruitment [ID-H/M&DR].
- 4510 LicW MURPHREE, M. (1992). *Ivory production and sales in Zimbabwe*. Department of National Parks and Wild Life Management, Harare, Zimbabwe, 9 pp. **Annotation:** Reviews system of recording movement of ivory through national store in Harare. It is tedious to withdraw specific information from system which is comprised of six different sets of records handled entirely on a manual basis. Ivory production and sales, average price and earnings from ivory from 1985 to 1991 presented along with information providing source of ivory for each of these seven years [ID-H/M&DR].
- 4511 EapB MURPHY, Christopher J., KERN, Thomas J., and HOWLAND, Howard C. (1992). Refractive state, corneal curvature, accommodative range and ocular anatomy of the Asian elephant (*Elephas maximus*). *Vision Research*, 32(11):2013-2021.
- 4512 EapB MURPHY, Christopher J., KERN, Thomas J., and HOWLAND, Howard C. (1993). Physiological optics and ocular anatomy of the Asian elephant (*Elephas maximus*). *1993 Proceedings of the American Association of Zoo Veterinarians*, page 406.
- 4513 LcjW MUSITI, Bihini Won wa. (1996). Problematique de gestion de l'elephant et perspectives des forets d'Afrique centrale [presented at AFESG meeting, Kruger National Park, South Africa, 4-10 February 1996]. *Pachyderm*, 22:88-91. **Annotation:** *Loxodonta africana*, conservation, ecology, Chad, Central African Republic, Cameroon, Equatorial Guinea, Gabon, Congo, Zaire [MPK].
- 4514 LbnW MUSRAVE, M. K. and COMPTON, S. G. (1997). Effects of elephant damage to vegetation on the abundance of phytophagous insects. *African Journal of Ecology*, 35(4):370-373.
- 4515 LraW MUTINDA, Hamisi S. (1992). Behavioural and visual indices of reproductive states in free ranging female African elephants [Paper 86]. In *Advances in reproductive research in man and animals: abstracts of the second international NCCR conference held in Nairobi on 3rd-9th May 1992* (ed. Charanjit Singh Bamba), pp. 60-61. Institute of Primate Research, National Museums of Kenya, Nairobi.
- 4516 LrcW MUTINDA, Hamisi S. (1994). Assessment of reproductive status of free ranging female African elephants (*Loxodonta africana*) using non-invasive techniques. MSc, University of Nairobi, xviii + 141 pp.
- 4517 LrjW MUTINDA, Hamisi S. (1996). The birth of an elephant. *Zimbabwe Wildlife*, 82:9.
- 4518 LroW MUTINDA, Hamisi S. (1996). Studying the reproductive physiology of elephants. In *Studying elephants* (ed. K. Kangwana), pp. 126-129. African Wildlife Foundation, Nairobi, Kenya, 178 pp. **Annotation:** Describes collecting hormone samples from elephants, storage, and analyzing these samples to provide a better understanding of the elephant reproductive cycle. Blood, urine, and fecal sampling discussed [ID-H/M&DR].
- 4519 LecW MWALYOSI, R. B. B. (1987). Decline of *Acacia tortilis* in Lake Manyara National Park. *African Journal of Ecology*, 25(2):51-53.
- 4520 LjmW MWALYOSI, R. B. B. (1990). The dynamic ecology of *Acacia tortilis* woodland in Lake Manyara National Park, Tanzania. *African Journal of Ecology*, 28(3):189-199. **Annotation:** Challenges compression theory explaining 'elephant problem' in LMNP. Changes in population density, distribution, mortality and growth rate of *A. tortilis* and rainfall distribution form basis of argument. Though elephants responsible for observed mortality of *A. tortilis* in park, through debarking, their impact involves thinning out of mature closed canopy. Viewed as positive because it encourages *A. tortilis* regeneration and recruitment, improves shrub browse productivity and reduces necessity for elephants to further debark. Argued that germination and regeneration of *A. tortilis* controlled by climatic and edaphic factors, that apart from browsing pressure (mainly by giraffe), growth rate of *A. tortilis* saplings is fast enough to establish new stands despite high density of elephants in park [ID-H/M&DR].
- 4521 EcqC MYDANS, Seth. (1997). Hungry and jobless, elephants wander the streets. *Endangered!*, 1(1):1. **Annotation:** Plight of Thailand's elephants echoes that of poor farmers, whose land and livelihood disappear as nation modernizes. Their forest habitat all but gone, along with most common use: muscle power for logging operations, mostly now illegal. Wandering elephants of Bangkok are uncomfortable symbol of growing inequities between rich and poor [E/ECM].
- 4522 BcmW MYERS, Norman. (1988). Mass extinction - profound problem, splendid opportunity. *Oryx*, 22(4):205-210.
- 4523 LbuW NAEGELE, Amyas. (1991). Baby Huey: the life and death of a maverick elephant. *Wildlife Conservation*, 94(3):60-69. **Annotation:** *Loxodonta africana*, behavior, mortality, Savuti, CNP [MPK].
- 4524 \*avU NAGASAWA, Kazuo and TAKAHASHI, Keiichi. (1989). Proboscidean fossil molars from Yamagata Prefecture, northeast Japan. *Bulletin of Yamagata Prefecture Museum*, 10:51-73 [in Japanese].
- 4525 EbjW NAIR, P. V. (1989). Development of nonsocial behaviour in the Asiatic elephant. *Ethology*, 82(1):46-60.
- 4526 EbcW NAIR, P. V. and JAYSON, E. A. (1992). Interaction between elephants and teak plantations in Parambikulam Wildlife Sanctuary, Kerala. The Asian elephant. *Proceedings of the International Seminar on Ecology, Biology, Diseases, Conservation and Management of the Asian*



- Elephant (ed. E. G. Silas, M. K. Nair, and G. M. Nirmalan). Kerala Agriculture University, Trichur, India.
- 4527 LnjW NAKAMURA, Chiaki. (1996). Seasonal variation in African elephant nutrition in Tsavo National Park, Kenya. MSc, Michigan State University, East Lansing, xviii, 255 pp.
- 4528 EdcW NANAPPA, K. A. (1991). Anaesthesia and treatment of a wounded wild makana elephant (*Elephas maximus*). Indian Veterinary Journal, 68(4):360.
- 4529 EcwW NASH, A. D. (1987). The elephants of Padang Sugihan. In The conservation and management of endangered plants and animals (ed. C. Santiapillai and Kenneth R. Ashby). Biotrop Special Publication, No. 30, Bogor.
- 4530 BicB NASH, Stephen V. (ed.). (1997). Still in business: the ivory trade in Asia seven years after the CITES ban. Traffic International, Cambridge, 82 pp.
- 4531 LbcW NAUGHTON-TREVES, Lisa. (1998). Predicting patterns of crop damage by wildlife around Kibale National Park, Uganda. Conservation Biology, 12(1):156-168.
- 4532 LmwW NDHLOVU, D. E. and BALAKRISHNAN, M. (1991). Large herbivores in upper Lupande Game Management Area, Luangwa Valley, Zambia. African Journal of Ecology, 29(2):93-104. **Annotation:** Upper Lupande Game Management area in Luangwa Valley currently supports good populations of 16 large and medium-sized herbivores. Impala most abundant, 34% of the total population estimates, followed by buffalo (19%), zebra (12%), wildebeest (10%), warthog (8%), elephant (6%) and hippopotamus (3%). Other species made up remaining 8%. Survey zone contained a herbivore biomass of 10,796 x 103 kg. Elephants contributed 50.2% and buffalo 25.1% of total herbivore biomass of area. Estimated maximum sustainable off-take potential in Upper Lupande was 1110.14 x 103 kg per annum. Distribution of most of species studied suggest favorable recruitment status. Species-specific distribution patterns and densities in survey zone [ID-H/M&DR].
- 4533 LicW NEALE, G. (1989). On the ivory trail. Telegraph Weekend Magazine, September 9:42-52. **Annotation:** Journalist review of elephant population loss and ivory trade circa 1989 using interviews and field trips with directors of wildlife departments in Tanzania and Kenya, ivory importers and carvers in East Africa and the Far East [ID-H/M&DR].
- 4534 EceW NEELKANTAN, K. S. (1995). Conserving elephant habitats in Tamilnadu forests. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 145-149. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 4535 \*adU NEIBURGER, E. J. and TURNBULL, W. D. (1989). The largest dental cyst. The New York State Dental Journal, 55(9):68, 72. **Annotation:** A mastodon, excavated in Pulaski County, Indiana, "exhibited several areas of dental pathology including a large dental cyst" [E/ECM].
- 4536 LkcW NEL, Michelle. (1996). Focus on National Parks Board. Keeping Track, October/November:45-49. **Annotation:** Two-part article, second ("The People's voice") of which is on elephants. Culling in KNP suspended last year after a public debate. The Board conceded it did not have proof of need to cull elephants, and decided that, wherever possible, elephants will be translocated to other reserves and the population be allowed to increase naturally [E/ECM].
- 4537 LjwW NELLIS, M. D. and BUSSING, C. E. (1990). Spatial variation in elephant impact on the Zambezi teak forest in the Chobe National Park, Botswana. Geocarto International, 2:55-56.
- 4538 \*vhU NELSON, L. W. (1988). Mammoth graveyard: a treasure-trove of clues to the past. Mammoth Site, Hot Springs, South Dakota, 24 pp. **Annotation:** "Background information about the Mammoth Site, its relation to the past and significance to the future" [E/JS].
- 4539 +vcB NEWMAN, B. (1991). Mammoths may be extinct, but they save the elephants. Wall Street Journal [16 July 91]: A1, A10.
- 4540 LchW NEWMARK, William D., BOSHE, John I., SARIKO Hashan I., and MAKUMBULE, George K. (1996). Effects of a highway on large mammals in Mikumi National Park, Tanzania. African Journal of Ecology, 34(1):15-31.
- 4541 LmcW NEWMARK, William D., MANYANZA, David N., GAMASSA DEO-GRATIAS, M., and SARIKO, Hashan I. (1994). The conflict between wildlife and local people living adjacent to protected areas in Tanzania: human density as a predictor. Conservation Biology, 8(1):249-255. **Annotation:** Questionnaire survey of 1,396 people living adjacent to ArNP, KNPFR, TaNP, LMNP and MNP and SGR: over 71% reported problems with wildlife. Relative frequency of reported conflict was significantly and inversely related to human density on lands adjacent to protected area. Of people reporting problems, 86% reported crop damage, 10% reported killing of livestock and poultry [ID-H/M&DR].
- 4542 LmwW NEWMARK, William D., FOLEY, Charles A. H., GRIMSHAW, John M., CHAMBEGGA, O. R., and RUTAZAA, A. G. (1991). Local extinctions of large mammals within Kilimanjaro National Park and Forest Reserve and implications of increasing isolation and forest conversion. In The conservation of Mount Kilimanjaro (ed. W. D. Newmark), pp. 35-46. IUCN, Gland. **Annotation:** Implications of growing isolation and forest conversion within KNPFR on large mammal fauna. Historical status of a species documented in literature and current status. Increasing isolation has a greater effect on moorland fauna while forest conversion has larger affect on species in montane forest. Future protection of large mammal populations can be enhanced by ensuring maintenance of remaining wildlife corridor on north-western side of area that links upper habitats on Mount Kilimanjaro with surrounding lowland habitats and by banning cutting of native vegetation in protected areas. Elephants remain present in montane forests in northern and western portions of area [ID-H/M&DR].
- 4543 LicW NGALA, Noah Katana, (1995). Ivory burning — Kenya's stockpile on the pyre again. Swara, 18(2):26-28.
- 4544 LcmW NGURE, Njoroge. (1992). History and present status of human-elephant conflicts in the Mwatate-Bura area, Kenya. Ph.D. dissertation, MSc, University of Nairobi, xv, 162 pp. **Annotation:** Describes and evaluates history, nature and extent of human-elephant conflicts between protected TNP West and adjacent human settlements. Questionnaire collected information on attitudes, perceptions, awareness and data on current crop damage by elephants. The elephants were perceived as the worst mammalian pest, more because of their size than the actual damage. Increased encroachment by subsistence cultivators on land previously only used for livestock and wildlife and widespread poaching, which made areas closer to the park relatively safer for elephants, increased crop damage level. Attitudes towards wildlife, including elephants, fairly favorable, but utilitarian resentment of wildlife conservation which did not benefit incurred losses. Fencing and 'controlled hunting' recommended to resolve conflicts [IDH/M&DR].
- 4545 LewW NGURE, Njoroge. (1992). Human-elephant interactions: seeking remedies for conflicts. Swara, 15(6):25-26. **Annotation:** Resolution of human-elephant conflict by multiple land use planning incorporating use of wildlife and agriculture compatible with presence of

- wildlife in Taita-Taveta District bordering TNP [ID-H/M&DR].
- 4546 LcjW NGURE, Njoro. (1995). Human-elephant interactions at an expanding interface in Kenya. In Integrating people and wildlife for a sustainable future. Proceedings of the first International Wildlife Management Congress (ed. J. A. Bissonette and P. R. Krausman), pp. 605-608. The Wildlife Society, Bethesda.
- 4547 LckW NGURE, Njoro. (1995). People-elephant conflict management in Tsavo, Kenya. Pachyderm, 19:20-25. **Annotation:** Human-elephant conflict in TNP area. Changing land use and human occupation of the area past, present and planned management activities mitigating situation [ID-H/M&DR].
- 4548 LieW NGURE, Njoro. (1996). What we can learn from tusks. In Studying elephants (ed. K. Kangwana), pp. 130-135. African Wildlife Foundation, Nairobi, Kenya, 178 pp. **Annotation:** Use of tusks for aging and sexing elephants, the identification of individuals and populations, ecology, DNA and isotopic sampling, and determination of population trends [ID-H/M&DR].
- 4549 UiuW NICHOL, John. (1987). The animal smugglers: and other wildlife traders. Facts on File, New York, 198 pp, 8 plts.
- 4550 \*avU NIELSEN, E., CHURCHER, C. S., and LAMMERS, G. E. (1988). A woolly mammoth (*Proboscidea, Mammuthus primigenius*) molar from the Hudson Bay Lowland of Manitoba. Canadian Journal of Earth Science, 25:933-938.
- 4551 EorC NIEMULLER, Cheryl A. (1989). Hormonal and biochemical changes associated with musth in the captive male Asian elephant (*Elephas maximus*). M.Sc. thesis, University of Guelph, Ontario.
- 4552 BrpC NIEMULLER, Cheryl A. (1990). Aspects of reproduction in Asian and African elephants. Proceedings of the Fourth Elephant Keepers Workshop, Port Lympne Zoo Park, England, pp. 6-14. Published by Port Lympne Zoo Park, Port Lympne, England, 35 pp.
- 4553 EroC NIEMULLER, Cheryl A. and LIPTRAP, Robert M. (1991). Altered androstenedione to testosterone ratios and LH concentrations during musth in the captive male Asian elephant (*Elephas maximus*). Journal of Reproduction and Fertility, 92:131-146.
- 4554 EaoB NIEMULLER, Cheryl A., GENTRY, P., and LIPTRAP, Robert M. (1990). Longitudinal study of haematological and biochemical constituents in blood of the Asian elephant. Comparative Biochemistry and Physiology, 96A(1):131-134.
- 4555 BroB NIEMULLER, Cheryl A., SHAW, H. J., and HODGES, J. K. (1992). Measurement of urinary gestagen metabolites for monitoring ovarian function in Asian and African elephants [Abstract]. Journal of Reproduction and Fertility, Abstract Series no. 9:30.
- 4556 BroB NIEMULLER, Cheryl A., SHAW, H. J., and HODGES, J. K. (1992). Measurement of urinary pregnanetriol for the determination of reproductive activity in Asian and African elephants [Paper 87] Abstract. In Advances in reproductive research in man and animals: abstracts of the second international NCCR conference held in Nairobi on 3rd-9th May 1992 (ed. Charanjit Singh Bamba), pp. 61-62. Institute of Primate Research, National Museums of Kenya.
- 4557 EroC NIEMULLER, Cheryl A., SHAW, H. J., and HODGES, J. K. (1993). Non-invasive monitoring of ovarian function in Asian elephants (*Elephas maximus*) by measurement of urinary 5b-pregnanetriol. Journal of Reproduction and Fertility, 99:617-625.
- 4558 ErqC NIEMULLER-HARE, Cheryl, GRAY, Charles, and LIPTRAP, Robert. (1988). A preliminary report on musth in male Asian elephants. In Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988, pp. 106-111. Jacksonville Zoological Park, Florida, 145 pp.
- 4559 LcwW NJOGU, James Gichiah. (1997). Elephant population and environmental degradation in Tsavo East National Park, Kenya. BSc. Moi University, xvi + 140 pp.
- 4560 LucW NJOKA, Theuri. (1997). No hunting in Kenya. Swara, 20(3):32-33. **Annotation:** Possible revival of sport hunting in Kenya heavily featured in national and international media. At center of debate are influential ranch owners and director of Kenya Wildlife Service, Dr. David Western, who stated that KWS favors experimental reintroduction of sport hunting. The author states, "If KWS cannot control overcollecting of ostrich eggs, poaching for game meat and the illegal entry of domestic livestock into parks, how will it control hunting? Hunters often have little respect for regulations" [E/ECM].
- 4561 LumW NJUMBI, Stephen John. (1993). Effects of poaching on the population structure of elephants in Meru National Park. D. Phil. Thesis, MSc Moi University, Kenya, 61 pp. **Annotation:** Research done on age and sex structure of severely poached population. Poached population of Meru had fewer old adults and calves in comparison with ANP. No differences were detected in overall adult population but sex ratio in breeding individuals highly skewed towards females. Observed Meru elephant families maintained tight aggregations that stayed in Park during dry season and moved out during wet period. Seven family units with 227 members were individually aged and sexed and photo indexes made [ID-H/M&DR].
- 4562 LucW NJUMBI, Stephen John. (1995). Effects of poaching in the population structure of African elephants (*Loxodonta africana*): a case study of the elephants of the Meru National Park. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 509-522. Bombay Natural History Society, Bombay. Oxford University Press, 535 pp. **Annotation:** Selection for large elephant tusks by poachers leads to distorted age structures with fewer adult males than females. Using direct observation, elephants individually identified and monitored in and out of Park; 227 (86%) animals were aged and sexed. Relatively unpoached ANP elephant population compared to Meru population, and the distribution of elephants by seasons monitored [ID-H/M&DR].
- 4563 LcwW NJUMBI, Stephen J., WAITHAKA, John M., GACHAGO, Salome W., SAKWA, Jim S., MWATHE, Kennedy M., MUNGAI, Paul, MULAMA, Martin S., MUTINDA, Hamisi S., OMONDI, Patrick O. M., and LITOROH, Moses W. (1996). Translocation of elephants: the Kenyan experience. Pachyderm, 22:61-65.
- 4564 \*bvU NOBBE, G. (1997). Galloping gomphotheres! Wildlife Conservation, 100(1):37. **Annotation:** Swimming, Miocene, Pleistocene, Peru, Panama [MPK].
- 4565 LrcC NOILES, E. E., RUFFING, N. A., OLSON, D., COLLINS, D., DUVAL, J., and CRITSER, J. K. (1991). Development of an artificial insemination program in the African elephant. Proceeding for the Annual Meeting of the Theriogenology Society, August, 307-313.
- 4566 \*vwU NOJIRI-KO EXCAVATION RESEARCH GROUP. (1994). The late Quaternary environment around Lake Nojiri in central Japan. Proceedings of the 29th International Geological Congress, Part B:269-277. **Annotation:** Vertebrate fossils *Palaeoloxodon naumanni* and *Sinomegaceros yabei*. Also elephant footprints. Artifacts include bone cleaver, bone flakes and chips, rib bones of Naumann's elephant, stone flake tools. Circumstantial evidence for kill-site, suggests elephant hunters made bone tools for kill and butchering

- processes [E/ECM].
- 4567 **EewW** NOOTEBOOM, H. P. (1992). A short report on the status of the elephants in Burma. Gajah, 9:30-31.
- 4568 **+avB** NORELL, Mark A. and NOVACEK, Michael J. (1992). Congruence between superpositional and phylogenetic patterns: comparing cladistic patterns with fossil records. Cladistics, 8:319-337.
- 4569 **+avB** NORELL, Mark A. and NOVACEK, Michael J. (1992). The fossil record and evolution: comparing cladistic and paleontologic evidence for vertebrate history. Science, 255:1690-1693.
- 4570 **\*voU** NORO, Miyuki, MASUDA, Ryuichi, DUBROVO, Irena A., YOSHIDA, Michihiro C., and KATO, Makoto. (1998). Molecular phylogenetic inference of the woolly mammoth *Mammuthus primigenius*, based on complete sequences of mitochondrial cytochrome *b* and 12S ribosomal RNA genes. Journal of Molecular Evolution, 46(3):314-326.
- 4571 **LgcW** NORTON, B. (1991). The African elephant: last days of Eden. Voyageur Press, Stillwater, Minnesota, 128 pp. Also, Swan Hill Press, Shrewsbury. **Annotation:** Foreword: Richard E. Leakey. Introduction: AWF. Elephants are powerful yet gentle, intense, funny, complicated and communicative. Elephants play, express tenderness, enjoy being mischievous, exhibit rage, maintain close family ties, help each other. Over past decade poaching reduced numbers in sub Saharan Africa from 1.3 million to 600,000 or less. Larger human populations caused habitat loss for farming and logging, crowding survivors into national parks and reserves where decision to cull or let them die of starvation must be made [ID-H/M&DR].
- 4572 **LmcW** NORTON-GRIFFITHS, M. (1975). Counting animals. African Wildlife Foundation, Nairobi.
- 4573 **LicW** NORTON-GRIFFITHS, M. (1995). The ivory issue [letter to the editor]. New Scientist, 148(1998):69.
- 4574 **LipB** NOTHNAGEL, G., LE ROUX, S. D., and GROTEPASS, W. P. (1995). Correlation between orientation of hydroxy-apatite and mechanical anisotropy in *Loxodonta africana* ivory. [Abstract] Paper presented at South African Division annual scientific meeting 7-9 September 1994, Verwoerdburg. Journal of Dental Research, 74(3):1014.
- 4575 **LcjW** NOTT, T. B. and STANDER, P. E. (1991). The monitoring of density and utilization of two tree species in the Etosha National Park, Namibia. Madoqua, 18:11-15. **Annotation:** Method to monitor utilization pressure on two dominant browse species *Colophospermum mopane* and *Boscia albitrunca* for their density and regrowth. In last decade, area had management program with introduction of artificial waterpoints, burning, and removal of large ungulates [ID-H/M&DR].
- 4576 **\*vaU** NOUBHANI, A. (1988). Etude de la variabilité de *Numidotherium koholense* Jaeger, 1986 (Proboscidea). Mémoire de DEA, Paléontologie des Vertébrés, Université Paris, 6:1-61.
- 4577 **\*avU** NOVACEK, Michael J. (1989). Review of "Cenozoic mammals of North America" edited by M. O. Woodburne, published 1987 by University of California Press. Berkeley, California, 336 pp. Quaternary Review of Biology, 64(1):63-64.
- 4578 **BavB** NOVACEK, Michael J. (1989). Higher mammal phylogeny: the morphological-molecular synthesis. In The hierarchy of life: molecules and morphology in phylogenetic analysis. Proceedings from Nobel Symposium 70 held at Alfred Nobel's Bjorkborn, Karlskoga, Sweden, August 29-September 2, 1988 (ed. B. Fernholm, K. Bremer, and H. Jornvall), pp. 421-435. Elsevier Science Publishers, xiii + 499 pp.
- 4579 **+vaB** NOVACEK, Michael J. (1990). Morphology, paleontology, and the higher clades of mammals. In Current mammalogy Vol. 2 (ed. H. H. Genoways), pp. 507-543. Plenum Publishing, New York, 577 pp.
- 4580 **+vaB** NOVACEK, Michael J. (1992). Mammalian phylogeny: shaking the tree. Nature, 356:121-125.
- 4581 **+vaB** NOVACEK, Michael J. (1993). Reflections on higher mammalian phylogenetics. Journal of Mammalian Evolution, 1(1):3-30. **Annotation:** Branch containing Proboscidea (p. 21) includes Embrithopoda (extinct), Desmostylia (extinct), and Sirenia, merging from one common ancestor (i.e., unresolved polytomy) [JS].
- 4582 **+vaB** NOVACEK, Michael J. (1999). 100 million years of land vertebrate evolution: the Cretaceous-early Tertiary transition. Annals of the Missouri Botanical Gardens, 86:230-258. **Annotation:** Includes a chart of mammalian taxa with a polytomy of Hyracoidea, Proboscidea, Embrithopoda, and a branch of Desmostylia and Sirenia [JS].
- 4583 **+vaB** NOVACEK, Michael J., WYSS, Andre R., and MCKENNA, Malcolm C. (1988). The major groups of eutherian mammals. In The phylogeny and classification of the tetrapods. Volume 2: mammals (ed. M. J. Benton), pp. 31-71. The Systematics Association, Special Volume No. 35B. Clarendon, Oxford, 329 pp.
- 4584 **EwcW** NOVELLIE, P. (1988). The impact of large herbivores on the grassveld in the Addo Elephant National Park. South African Journal of Wildlife Research, 18(1):6-10.
- 4585 **LbjB** NOVELLIE, P., HALL-MARTIN, Anthony J., and JOUBERT, D. (1991). The problem of maintaining large herbivores in small conservation areas: deterioration of the grassveld in the Addo Elephant National Park. Koedoe, 34(1):41-50. **Annotation:** Vegetation and plant composition changes in grassland community over 6 year period with growing large herbivore population confined, AENP. Favored grass and shrub species declined. Comparison of grazed plots with fenced plots showed large herbivores primarily responsible for abundance of *Themeda triandra*, but rainfall also played role. Decline of *Helichrysum rosom* not caused by large herbivores. Grass cover determined by rainfall [ID-H/M&DR].
- 4586 **BgjB** NOWAK, Ronald M. (1991). Walker's mammals of the world (5th edition), two volumes. The Johns Hopkins University Press, Baltimore and London, 1629 pp. **Annotation:** Order Proboscidea on pages 1277-86. On page 1279 is a sagittal section of a cranium of *Elephas maximus* depicting diploe [JS].
- 4587 **ExvW** NOZAWA, K. and SHOTAKE, T. (1990). Genetic differentiation among local populations of Asian elephant. Zeitschrift Fur Zoologische Systematic und Evolutionsforschung, 28(1):40-47.
- 4588 **LicW** NSANJAMA, Henri. (1990). Elephant conservation in the SADCC region. In Regional perspectives and situation regarding elephant conservation and the ivory trade, pp. 55-88. IUCN.
- 4589 **LrpC** NSOSSO, Dominique. (1996). Problematique de gestion de l'éléphant d'Afrique dans la réserve de faune de Conkouati, au Kouilou (Congo). Pachyderm, 22:50-57.
- 4590 **EqtC** NUGEGODA, V. (1992). Management of elephants in captivity in Sri Lanka. Gajah, 9:29.
- 4591 **LemW** NUMMELIN, Matti. (1990). Relative habitat use of duikers, bush pigs and elephants in virgin and selectively logged areas of the Kibale

- Forest, Uganda. *Tropical Zoology*, 3(2):111-120. **Annotation:** Comparisons of relative habitat use of red and blue duikers, bush pigs, and elephants in two natural forests, and two selectively felled forests done by monthly censuses of duiker pellet groups, elephant dung and bush pig diggings for one year in 1983-84. Elephant appeared to prefer selectively felled areas. The estimated elephant population of 200 in Kibale Forest is about one fifth the number 20 years ago [ID-H/M&DR].
- 4592 BqgC NUNLEY, Larry. (1988). Stuck in the middle: one foot in management - one foot in manure. In *Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988*, pp. 64-66. Jacksonville Zoological Park, Florida, 145 pp.
- 4593 LcjW NYAKAANA, Silvester and ARCTANDER, Peter. (1998). Isolation and characterization of microsatellite loci in the African elephant, *Loxodonta africana*. *Molecular Ecology*, 7(10):1436-1437.
- 4594 EcwW O'BRIEN, Timothy G. and KINNAIRD, Margaret F. (1996). Birds and mammals of the Bukit Barisan Selatan National Park, Sumatra, Indonesia. *Oryx*, 30(3):207-209. **Annotation:** Asian elephants, p. 209; from sighting, prints and feces of young animals, estimate of 100-150 elephants [E/JS].
- 4595 BapB O'CONNELL, Caitlin, ARNASON, Byron T., and HART, Lynette A. (1997). Seismic transmission of elephant vocalizations and movement. *Journal of the Acoustical Society of America*, 102(5, Part 2):3124(A). **Annotation:** Presents data and suggests that elephants could establish their long-distance, low frequency vocalizations on seismic (Rayleigh) waves propagated in the surface layer of the ground; cf. Reference nos. 4885, 4596 [DD].
- 4596 BapB O'CONNELL, Caitlin, HART, Lynette A., and ARNASON, Byron T. (1999). Comments on "Elephant hearing" [*Journal of the Acoustical Society of America*, 104(2):1122-1123 (1998)]. *Journal of the Acoustical Society of America*, 105(3):2051-2052. **Annotation:** "Reuter, Nummela and Hemila's recent letter hypothesized that elephants may sense ground vibrations by bone conduction and use of the massive ossicles of their middle ears. Their inner ears also are specialized for low frequencies, having reverted to a reptilian-like cochlear structure that may facilitate detection of seismic signals. Although bone conduction could be used for detection of seismic signals, mechanoreceptors with neural transmission are also a possibility. For localization of 20 Hz signals, the pinnae are limited given the large wavelengths involved, unless higher harmonics are reliably present"; cf. Reference nos. 4885, 4595 [DD].
- 4597 LdaW OKEWOLE, P. A., OYETUNDE, I. L., IROKANULO, E. A., CHIMA, J. C., NWANKPA, N., LALEYE, Y., and BOT, C. (1993). Anthrax and cowdriosis in an African elephant. *The Veterinary Record*, 133:168.
- 4598 LcmW OKOUMASSOU, Kotchikpa. (1997). Conflits homme-éléphant au Togo. *Pachyderm*, 24:17-22. **Annotation:** Future of 228 elephants depends on measures taken to resolve conflicts over habitat [in French] [SLS].
- 4599 LmwW OKOUMASSOU, Kotchikpa and BARNES, Richard. (1998). The distribution of elephants in northeastern Ghana and northern Togo [Abstract]. *Pachyderm*, 25:44 [in English and French].
- 4600 LjwW OKOUMASSOU, K[otchikpa], BARNES, R[ichard] F. W., and SAM, M. K. (1998). The distribution of elephants in north-eastern Ghana and northern Togo. *Pachyderm*, 26:52-60 [abstract in French]. **Annotation:** Togo's elephants are found in the center and far north regions. Ghana's elephants are found along the Sissili river in the west and southwest, and in the Red Volta and Morago river valleys. They move between Ghana and Togo along the Morago/Koulagouna river. Seen most often in Red Volta valley during wet season. Move northwards into Burkina Faso for dry season, southwards again in early wet season [E/ECM].
- 4601 \*avU OLDALE, R. N., WHITMORE Jr., F. C., and GRIMES, J. R. (1987). Elephant teeth from the western gulf of Maine, and their implications. *National Geographic Research*, 3(4):439-446.
- 4602 LcgW OLINDO, Perez. (1991). An African perspective. In *Elephants: the deciding decade* (ed. R. Orenstein), pp. 61-68. Key Porter Books, Toronto/Sierra Club Books, San Francisco, 160 pp. Revised, updated reprint in 1997. **Annotation:** Valuable insight into cultural differences between native Africans and people from "developed countries of the west" and how those differences influence their concept of elephants and conservation [MPK].
- 4603 LmwW OLINDO, Perez M., DOUGLAS-HAMILTON, Iain, and HAMILTON, P. (1988). The 1988 Tsavo elephant count [extracts]. *Swara*, 11(3):23-24. **Annotation:** Reviews aerial survey in February 1988 which estimated population of 6,000 elephants in TNP ecosystem, decline from 42,000 in 1969 mainly from poaching. Area consisted of TNP with 4,300, a 75% decline since last major count in 1972, and another 1,000 in surrounding areas where there has been a decline of 87% in same period. Argues that international ivory trading ban is needed to reduce incentive of poachers [ID-H/M&DR].
- 4604 BrqB OLSEN, J. H. and BYRON, H. T., Jr. (1993). Castration of the elephant. In *Zoo and wild animal medicine* (3rd edition) (ed. M. E. Fowler), pp. 441-444. W. B. Saunders Company, Philadelphia, 617 pp. **Annotation:** *Elephas maximus*, *Loxodonta africana*, captivity, reproduction, respiration, temperature, cardiovascular. See Reference nos. 1009, 3489, 3773, 3985, 5039 [MPK].
- 4605 EroC OLSEN, J. H., CHEN, C. L., BOULES, M. M., MORRIS, L. S., and COVILLE, B. R. (1994). Determination of reproductive cyclicity and pregnancy in Asian elephants (*Elephas maximus*) by rapid radioimmunoassay of serum progesterone. *Journal of Zoo and Wildlife Medicine*, 25:349-354.
- 4606 \*vzU OLSEN, Stanley J. (1994). The Asian elephant, *Elephas maximus*, and Chinese culture. *The Explorers Journal*, 72(1):30-32, 34-35.
- 4607 \*ehU OLSEN, S. L. and SHIPMAN, P. (1988). Surface modification on bone: trampling versus butchering. *Journal of Archaeological Science*, 15:535-553.
- 4608 LrcC OLSON, Deborah J. (1997). *North American Regional Studbook for the African Elephant (Loxodonta africana)*. Indianapolis Zoological Society, Indianapolis, Indiana, 194 pp. **Annotation:** Helped by Heidi Riddle, Laurie Bingaman Lackey, and Michael Blakeley. Extremely useful source, used in part to construct data for "Captive elephant population of North America: 1987-1999"; see Contents for this issue of *Elephant* [SLS].
- 4609 LraC OLSON, Debbie[Deborah]. (1998). Indianapolis Zoo's artificial insemination — a first for African elephants. *Journal of the Elephant Managers Association*, 9(2):93-96. **Annotation:** Cow at Indianapolis Zoo conceived a calf by means of artificial insemination — the world's first successful conception of this type for African elephants [E/ECM].
- 4610 BrpC OLSON, Debbie[Deborah]. (1999). Recipe for a successful artificial insemination. *Journal of the Elephant Managers Association*, 10(1):21-28. **Annotation:** In 1998 one Asian and two African elephants were successfully impregnated using artificial insemination. Contains

- summary of procedure [E/ECM].
- 4611 BdqC OLSON, Debbie[Deborah], KEELE, Mike, and TUTTLE, Dale. (1994). Husbandry and management. In Medical management of the elephant (ed. Susan K. Mikota, Eva Lee Sargent, and G. S. Ranglack), pp. 27-31. Indira Publishing House, West Bloomfield (Michigan), 298 pp.
- 4612 EcjW OMAN, Doug. (1987). Dams disrupt elephant habitat. Hasti Newsletter, 3:5. **Annotation:** Problems in southern India point out that finding ways to control water that satisfy humans without hurting elephants requires creative solutions [SMW].
- 4613 LmcW OMARI, Ilambu, HART, John A., BUTYNSKI, Thomas M., BIRHASHIRWA, N. R., UPOKI, Agenonga, M'KEYO, Yuma, BENGANA, Faustin, BASHONGA, Mugunda, and BAGURUBUMWE, Norbert. (1999). The Itombwe Massif, Democratic Republic of Congo: biological surveys and conservation, with an emphasis on Grauer's gorilla and birds endemic to the Albertine Rift. Oryx, 33(4):301-322. **Annotation:** In 1996, the first biological surveys in 30 years revealed that significant areas of natural habitat and remnant faunal populations remain, but these are subject to ongoing degradation and over-exploitation. Elephants mentioned on pages 311, 321 [E/ECM].
- 4614 LnoW OMONDI, Patrick O. M. (1995). Chemical composition of preferred and non-preferred elephant food plants in Mt. Kenya Forest Reserve, Kenya. MSc, University of Reading, iv, 37 pp.
- 4615 LejW ONEKA, M. (1991). Vegetation changes induced by exclusion of fire and large herbivores in Murchison Falls National Park, Uganda. In African wildlife: research and management. Proceedings of an international symposium, 8-11 December Kampala, Uganda (ed. F. I. B. Kayanja and E. L. Edroma), pp. 23-25. ICSU, Paris. **Annotation:** Apparent vegetation changes induced by fire and elephants in MFNP. Changes over the past 20 years in enclosure set up to determine relative importance of elephants and fire. Results illustrate complexity of ecological processes underlying vegetation change [ID-H/M&DR].
- 4616 LnbW ONYEANUSI, A. E., ERO, I. I., and KUSHI, A. A. M. (1988). Utilisation of baobab trees by elephants in Yankari Game Reserve. The Nigerian Field, 53(4):163-166.
- 4617 ErqC OOSTERHUIS, Jim, E. (1991). The birth and attempted hand rearing of an Asian elephant calf. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 99-103. Burnet Park Zoo, Syracuse, 161 pp.
- 4618 LcuW ORENSTEIN, Ronald [I]. (1992). Africa's elephants could soon be under the gun again. The Christian Science Monitor, February 10:18.
- 4619 LciW ORENSTEIN, Ronald [I]. (1992). The 1989 CITES meeting, in Lausanne, Switzerland. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 208-209. Rodale Press, Emmaus (Pennsylvania), 240 pp.
- 4620 LicW ORENSTEIN, Ronald [I]. (1993). Elephants: the promise and the peril. Wildlife Watch, 1(1):1-2.
- 4621 LkjW ORENSTEIN, Ronald [I]. (1995). Elephant-culling policy in Kruger NP finally debated in public. BBC Wildlife, 13(7):56.
- 4622 LkcW ORENSTEIN, Ronald [I]. (1996). The culling fields. Wildlife Watch, 4(2):1, 3. **Annotation:** Published by: International Wildlife Coalition. Loxodonta africana, translocation, KNP [MPK].
- 4623 LciW ORENSTEIN, Ronald [I]. (1997). CITES and elephant conservation. Swara, 20(3):7-8, 10-11. **Annotation:** Immediate fate of African elephants lies in hands of African countries north of the Zambesi, who must decide whether to maintain a ban that has benefited many, or to yield to Zimbabwe and its allies [E/ECM, p. 11].
- 4624 BcqB ORENSTEIN, Ronald I. (compiler). (2000). On CITES and conservation related issues. Elephant, 2(4):60-62.
- 4625 BgcB ORENSTEIN, Ronald [I]. (ed.) and BECK, Brian (photographer). (1991). Elephants: the deciding decade. Key Porter Books Limited, Toronto, 160 pp. Revised and updated reprint in 1997. **Annotation:** Present status of elephants with concern for their future in light of continued ivory trade. Chapters focused on natural history, herd relationship, general ecology and specific ecological aspects of elephants such as those in the vicinity of MENP [ID-H/M&DR]. Reviewed by Gleiber, 1992, in "The Animal Welfare Institute Quarterly", 41(1):4 [MPK].
- 4626 BjcW OSBORN, Ferrel V. (1996). The ecology and deterrence of crop-raiding elephants: research progress. Pachyderm, 22:47-49. **Annotation:** Loxodonta africana, behavior, culling, fire, habitat alteration, SWRA [MPK].
- 4627 LcoW OSBORN, Ferrel V. and RASMUSSEN, L. E. L. (1995). Evidence for the effectiveness of an oleo-resin capsicum aerosol as a repellent against wild elephants in Zimbabwe. Pachyderm, 20:55-64. **Annotation:** Studies with free ranging elephants (HNP) suggest a Capsicum-based aerosol solution has validity as elephant repellent over both short (20-30 m) and intermediate (20-30 m) ranges and that Capsicum is short-term repellent. Preliminary results suggest this chemical may act as practical elephant deterrent which combines with aversive conditioning of problem elephants [ID-H/M&DR].
- 4628 LbcW OSBORNE, Loki. (1998). Ecology of crop raiding elephants [Abstract]. Pachyderm, 25:39-40 [in English and French]. **Annotation:** Purpose of study was to examine ecology of elephants that raid crops adjacent to SWRA [E/ECM].
- 4629 LdoW OSOFSKY, Steven A. (1995). Pulse oximetry monitoring of free-ranging African elephants (Loxodonta africana) immobilized with an etorphine/hyaluronidase combination antagonized with diprenorphine. Proceedings American Association Zoo Veterinarians, Wildlife Disease Association and American Association Wildlife Veterinarians joint conference August 12-17, 1995, pp. 273-277.
- 4630 LocW OSOFSKY, Steven A. (1997). A practical anesthesia monitoring protocol for free-ranging adult African elephants (Loxodonta africana). Journal of Wildlife Diseases, 33(1):72-77. **Annotation:** Etorphine HCl, anesthesia, oxygen saturation, pulse oximetry [MPK].
- 4631 EdpC OSSENT, P., GUSCETTI, F., METZLER, A. E., LANG, E. M., RUBEL, A., and HAUSER, B. (1990). Acute and fatal Herpesvirus infection in a young Asian Elephant (Elephas maximus). Veterinary Pathology, 27(2):131-133.
- 4632 EaoC OSTROWSKA, J. G., JAKUBOW, K., ZALEWSKA, B., and KRZYWICK, Z. (1988). Haematological and biochemical studies in female domesticated Indian elephants (Elephas maximus L.). Comparative Biochemistry and Physiology, 89A(3):313-315.
- 4633 BqtC O'SULLIVAN, Tim. (1992). The history of the St. Louis elephant program. The 13th International Elephant Workshop, Atlanta, 1992, pp. 17-25. Zoo Atlanta, Georgia, 151 pp.
- 4634 LelW OTTICHILO, W. K. (1987). The causes of the recent heavy elephant mortality in the Tsavo ecosystem, Kenya, 1975-1980. Biological Conservation, 41(4):279-289.
- 4635 LecW OTTICHILO, Wilber. (1990). The importance of ecological research. Swara, 13(6):6-7. **Annotation:** Elephants in TNP [ECM].
- 4636 LmeW OTTICHILO, Wilbur K., KUFWAFWA, John W., and STELFOX, John G. (1987). Elephant population trends in Kenya: 1977-1981. African

- Journal of Ecology, 25(1):9-18. **Annotation:** Population of elephants for Kenya approximately 75,300 in 1977, 55,300 in 1978 and 51,200 in 1980-1981. Ratio of live to dead elephants decreased from 4.0:1 in 1977 to 2.0:1 in 1978 and 1.27:1 in 1980-1981. All but about 7,500 were on rangelands (500,000 sq. km), especially on Hola, Ijara, Tsavo Mtito Andei, Jipe and Lamu eco-units. Numbers also relatively high in Meru, Laikipia, and Mara eco-units. The 7,500 elephants outside rangelands were mainly in AbNP and MKNP, MENP and Mau Forest [ID-H/M&DR].
- 4637 LucW OVEJERO, Juan. (1998). Interpreting current levels of poaching of African elephants. Oryx, 32(2):85-86.
- 4638 EagB OVERBECK, George W., BALKE, Jennifer, and FOOR, Eugene W. (1987). Review of "Anatomy and histology of the Indian elephant" by D. Mariappa, published 1986 by Indira Publishing House, Oak Park, Michigan, 209 pp. Elephant, 2(3):69-70.
- 4639 LcwW OVERTON, Greg. (1997). An update on the African elephant database. The Rhino & Elephant Journal, 11:13-15.
- 4640 LicW OVERTON, Greg. (1998). Letter from the Editor. Pachyderm, 26:13. **Annotation:** If resumption of ivory trade increases poaching, the trade should be stopped; if trade is shown to benefit conservation, ivory trade should be reopened [ECM].
- 4641 BtqC OWEN, David. (1992). One-ring mud show. The New Yorker, April 20:85-90, 92-99. **Annotation:** Portions of life history of Bucky Steele, who has worked with baboon, giraffes, hippos, horses, bears, and elephants. Elephants are inseparable part of his life, and he, or one of his staff, is in constant contact with his elephants all year, including holidays [JS].
- 4642 \*evU OWEN-SMITH, Norman. (1987). Pleistocene extinctions: the pivotal role of megaherbivores. Paleobiology, 13(3):351-362. **Annotation:** "Keystone" role of elephants [MPK].
- 4643 BcjW OWEN-SMITH, R. Norman. (1988). Megaherbivores: the influence of very large body size on ecology. Cambridge University Press, Cambridge. 369 pp. **Annotation:** Considers constraints imposed by a very large body size on elephants (as well as rhinos, hippos, and giraffes) in physiology, ecology, and behavior. Consideration of implications of large body size on conservation of remaining populations. Reviewed in "Biological Conservation", 53(1):79, 1990 [MPK].
- 4644 LncU OWEN-SMITH, Norman. (1989). Megafaunal extinctions: the conservation message from 11,000 years B. P. Conservation Biology, 3(4):405-412. **Annotation:** Local extinction of 3 grazer species in HGR coincided with woody vegetation invasion from absence of elephants for much of this century. *Loxodonta africana*, interspecific relations, ecology, habitat alteration. See Reference no. 4643, fide Taylor and Cumming, 1993 (Reference no. 5394), p. 13 [MPK].
- 4645 LciW OWENS, Delia and OWENS, Mark. (1992). The eye of the elephant: an epic adventure in the African wilderness. Houghton Mifflin Company, Boston, 306 pp. **Annotation:** Authors set out to teach Zambian natives that wildlife is worth more alive. When poachers decided the Owens should die, their battle to save elephants became a fight for their lives [E/ECM]. Also published in 1993 as: Survivor's Song. Harper Collins, London, 305 pp. [MPK].
- 4646 LcuW OWENS, Delia and OWENS, Mark. (1993). Survivor's song: life and death in the African wilderness. Harper Collins, London, 305 pp. **Annotation:** Personal story of two young researchers who pitted all their energy against organized poaching in North LNP and surrounding area from 1986 through to 1992. Notes background situations of those involved in large scale loss of wildlife, particularly elephants and slow development of an anti-poaching offensive and an educational and community economic development program which led to its demise [ID-H/M&DR].
- 4647 LciW OWENS, Delia and OWENS, Mark. (1997). Gift: a personal account of elephant conservation. Swara, 20(3):14-21. **Annotation:** The authors, who have battled for over a decade to preserve one of Africa's finest wildernesses, give a firsthand account of their involvement with North Luangwa's elephants and argue their case for retaining the CITES ban [E/ECM, p. 14].
- 4648 LicW OWENS, Mark and OWENS, Delia. (1992). The ivory war (condensed from "The eye of the elephant"). Reader's Digest, October, 1992:185-188, 192-193, 195-198, 201-204, 206-211, 213-214, 218-220, 223-224. **Annotation:** Excerpt from book of Owens and Owens, 1992, Reference no. 4645. *Loxodonta africana*, conservation, poaching, LNP [MPK].
- 4649 LcuW OWENS, Mark and OWENS, Delia. (1992). Two against the odds: our fight to save Zambia's elephants. International Wildlife, 22(5):4-13. **Annotation:** Authors have been working to wrest North LNP from control of bandits and develop it into a resource to benefit local people [JS].
- 4650 ByhB OWENS, Mary Ann. (1992). The elephant as symbol. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 166-167. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London.
- 4651 +xvB OZAWA, Tomowo, HAYASHI, Seiji, and MIKHELSON, Victor M. (1997). Phylogenetic position of mammoth and Steller's sea cow within Tethytheria demonstrated by mitochondrial DNA sequences. Journal of Molecular Evolution, 44(4):406-413.
- 4652 UovU PÄÄBO, S. (1993). Ancient DNA. Scientific American, November:60-66.
- 4653 LucW PACELLE, Wayne. (1997). Tax dollars fund trophy hunting. HSUS News, 42(4):7-8. **Annotation:** USAID has provided more than \$25 million to 8 groups and agencies to promote internationally, program in Zimbabwe called CAMPFIRE. Hunters pay thousands of dollars to shoot African elephants "in what is the sporting equivalent of shooting a parked car". "CAMPFIRE's doctrine relegates animals to the roles of marauders and nuisances and suggests that human beings have no compassionate responses to animals' plight and well-being" [E/ECM].
- 4654 LmwW PACKER, C. (1994). Into Africa. University of Chicago Press, 288 pp. **Annotation:** *Loxodonta africana*, Tanzania. Regarding field-work on lions, chimps, others in East Africa (Serengeti/Gombe) [MPK].
- 4655 LcjW PADGETT, Bill. (1995). The African elephant, Africa, and CITES: the next steps. Indiana Journal of Global Legal Studies, Spring:529-552.
- 4656 EcjW PADMALAL, U. K. G. K. (1998). Conservation of elephants in southeastern dry zone of Sri Lanka: an integrated approach. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), p. 17. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 4657 LwjW PAGE, Bruce R. (1997). Learning about the interaction between elephants and their habitats: twenty-one years of the Tuli Elephant Project. The Rhino & Elephant Journal, 11:31-34.
- 4658 BdqC PAGE, C. Douglas. (1988). Recommended protocol for health screening elephants. In Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988, pp. 26-30. Jacksonville Zoological Park, Florida, 145 pp.

- 4659 BdoC PAGE, C. Douglas, MAUTINO, Michele, DERENDORF, Hartmut D., and ANHALT, John P. (1991). Comparative pharmacokinetics of trimethoprim-sulfamethoxazole administered intravenously and orally to captive elephants. *Journal of Zoo and Wildlife Medicine*, 22(4):409-416.
- 4660 BciW PAGEL, Mark and MACE, Ruth. (1991). Keeping the ivory trade banned. *Nature*, 351(6324):265-266. **Annotation:** "The most effective way to stop the killing of elephants is to ban the ivory trade. All other options keep ivory in the marketplace and thereby encourage demand for ivory and its products" [E/ECM, p. 265].
- 4661 \*yzU PALES, L. and DE ST. PEREUSE, M. T. (1989). *Les Gravures de la Marche: IV, Cervidès, Eléphants et Divers*. Ophrys, Paris, total pages not provided.
- 4662 LceW PALEY, R. G. T. and KERLEY, G. I. H. (1998). The winter diet of elephant in Eastern Cape Subtropical Thicket, Addo Elephant National Park. *Koedoe*, 41(1):37-45. **Annotation:** 70 species identified as food plants for elephants in winter, let researchers determine tentatively what plant species at risk most from elephants. Since elephants are 78% of herbivore biomass in park, it is likely elephant feeding restricts availability of forage for other browsers [E/SLS].
- 4663 BgcB PALMER, Douglas. (1995). Review of "Elephants" by Clive A. Spinage, published 1994 by T. & A. D. Poyser, London, 319 pp. *BBC Wildlife*, 13(6):79.
- 4664 \*avU PALOMBO, Maria R. and PETRONIO, Carmela. (1989). Caratteri morfostutturali del femore di *Elephas (Palaeoloxodon) creutzburgi* (Kuss, 1965) di grotta Simonelli (Rethymnon, Creta). *Hystrix, Roma* (n. s.) 1:95-105.
- 4665 BnoC PAPAS, Andreas M., CAMBRE, Richard C., CITINO, Scott B., and SOKOL, Ronald J. (1991). Efficacy of absorption of various vitamin E forms by captive elephants and black rhinoceroses. *Journal of Zoo and Wildlife Medicine*, 22(3):309-317.
- 4666 EcjW PARANAGAMA, D. G. Amara. (1998). Handapanagala elephant drive: an economic analysis and ecological assessment. Abstract presented at *National Symposium on Elephant Management and Conservation* (ed. Jayantha Jayewardene and Charles Santiapillai), pp. 18-19. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 4667 LuwW PARDAL, J. (1990). *Elephant hunting in Portuguese East Africa*. Safari Press, Huntington Beach (California), 256 pp.
- 4668 EtcC PARIS, Jay. (1993). An elephant never forgets. *Yankee*, February, 1993:88-91, 116-118. **Annotation:** Animal trainer Brett Bronson never saw an elephant so abused. Could he restore her trust in humans, or would she destroy him first? [E/ECM].
- 4669 EtcC PARIS, Jay. (1993). To save an elephant. *Reader's Digest*, November, 1993:126-130, 116-118.
- 4670 LwcW PARKER, I[an]. S. C. (1989). The African elephant declines in range and numbers. *Kalahari Conservation Society Newsletter*, 23:6.
- 4671 LicB PARKER, I[an]. S. C. (1990). Marketing elephant products: a failure in conservation. In *The future of Botswana's elephants*. Proceedings of a workshop organised by The Kalahari Conservation Society in conjunction with The Department of Wildlife and National Parks. 10 November 1990, Hancock, P., Editor., Gaborone, Botswana, Kalahari Conservation Society, pp. 67-71. **Annotation:** Elephant management with respect to ban on elephant products and its effect on rational economic development versus simple conservation of a species. Development of national and regional industry based on elephant products including ivory suggested as rationale which should be available to the SACIM countries [ID-H/M&DR].
- 4672 LwiW PARKER, I[an]. S. C. and GRAHAM, A. D. (1989). Elephant decline: downward trends in African elephant distribution and numbers (Parts I and II). *International Journal of Environmental Studies*, 34(4):287-305, 35(1/2):13-26. **Annotation:** Fide Taylor and Cumming 1993:12: "elephants and man cannot coexist". **Part I:** Authors consider humans and elephants as complete competitors and suggest that since biological theory maintains such species cannot coexist on the same range, the increase in one will exclude the other. Measurements of human population increase, elephant decline and ivory off take are presented in keeping with this hypothesis. **Part II:** East African ivory exports indicate that elephant mortality rose between 1925 and 1975, confirming Kingdon's reported declines from contracting range. Exports rose even when ivory values fell or were low. No correlation exists between variations about the means of ivory price or production trends. Other large mammals, which do not produce ivory, and forests decline in concert with elephants, calling for a general explanation [ID-H/M&DR] [MPK].
- 4673 LgwW PARKER, Ian S. C. and GRAHAM, A. D. (1989). Men, elephants and competition. In *The biology of large African mammals in their environment*. Proceedings of a symposium held at the Zoological Society of London, 19-20 May 1988 (ed. P. A. Jewell, and G. M. O. Maloiy), 61:241-252.
- 4674 LnoB PARROTT, Joel J. (1996). Analysis of African elephant mature milk in early lactation and formulation of an elephant calf milk replacer. *Proceedings of the American Association of Zoo Veterinarians annual conference* November 3-8, 1996, pp. 102-112.
- 4675 EdaC PATHAK, S. C., SAIKIA, J., LAHON, D. K., DEKA, K. N., BARUA, S. K. DEWAN, J. N., and VETY, A. H. (1990). Attempted ventral herniorrhaphy in an Asian elephant (*Elephas maximus*) using Xylazine sedation. *Journal of Zoo and Wildlife Medicine*, 21(2):234-235.
- 4676 \*vgU PAVLAKIS, Paris. (1999). The Messinian events and the Greek fossil mammal record. *Deinsea*, 7:233-251. **Annotation:** See Reference no. 4884 for details about "Deinsea 7". Figure 5, page 245 includes biochronological range in MN units of proboscideans: *Deinotherium giganteum*, *Choerolophodon pentilicus*, *Stegotrabelodon grandincisivus*, *Mammuth borsoni*, and *Zygodolophodon tapiroides* [ECM/JS].
- 4677 \*vwU PAVLOVIC, M. and EREMUA, M. (1991). Bunodont mastodonts in the Neogene of Serbia and Macedonia. *Annales Géologiques de la Péninsule Balkanique*, 55(1):117-130.
- 4678 BbaB PAYNE, Katharine [B.] (1989). Elephant talk. *National Geographic*, 176(2):264-277. **Annotation:** Infrasound by elephants to communicate across long distances. Sounds include barks, snorts, trumpets, roars, growls; cf. Berg, J. K. (1983), Reference no. 1883. Focus on rumble sound. Reasons for rumble sound and low frequencies. Aspects of social life of elephants aided by infrasound [ID-H/M&DR].
- 4679 LbeW PAYNE, Katharine B. (1998). In the presence of elephants; an excerpt from "Silent thunder: in the presence of elephants". *Natural History*, 7/98-8/98:9. **Annotation:** Katy Payne (discoverer of infrasonic communication in elephants) came across elephant behavior she had never seen before [E/JS].
- 4680 LbeW PAYNE, Katy [Katharine B.] (1998). *Silent thunder: in the presence of elephants*. Simon & Schuster, New York, 288 pp. **Annotation:** Discovery that infrasound occurs in land mammals. Describes elephants as sentient, caring, intelligent, thoughtful [E/ECM].
- 4681 LbpW PAYNE, Katharine B. and LANGBAUER, Jr., William R. (1992). Elephant communication. In *Elephants: majestic creatures of the wild* (con-

- sult. ed. J. Shoshani), pp. 116-123. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also Simon & Schuster, London. **Annotation:** Aspects of tactile, chemical, visual, acoustic communication between individuals and among groups of elephants. Visual communication is essentially body language between animals. Acoustic communication involves infrasonic sounds and trumpeting, rumbling and various individual and group sounds [ID-H/M&DR].
- 4682 LicW PAYNE, Katharine Boynton, DOUGLAS-HAMILTON, Iain, MOSS, Cynthia J., and POOLE, Joyce H. (1999). Alarm raised over elephant ivory trade [letter to editor]. *Nature*, 399(6734):297.
- 4683 LcwW PAYNTER, David and NUSSEY, Wilf. (1992). *Kruger: portrait of a national park* (revised edition). Halfway House: Southern Book Publishers, 291 pp.
- 4684 BchW PEACHEY, Harry [C.] (1998). White gold. *Journal of the Elephant Managers Association*, 9(1):9-25. **Annotation:** History of ivory trade and CITES [SLS].
- 4685 \*veU PÉAN, S., M. PATHOU-MATHIS, M., and TASSY, Pascal. (1998). Agents climatiques et édaphiques intervenant dans la mise en place d'un assemblage osseux: taphonomie d'un gisement à mastodontes du Miocène (En Péjouan, Bassin d'Aquitaine, France). In *XIIIth Congress UISPP Congress Proceedings*, Forli, 6(4):201-208. **Annotation:** How climatic and edaphic agents act on the setting of faunal remains: taphonomy of a Miocene mastodon site [E/ECM].
- 4686 LqgC PEARSON, Suzi. (1997). Zoo Atlanta. *Journal of the Elephant Managers Association*, 8(3):16-17.
- 4687 LicW PEARCE, David W. (1989). The ivory trade 1950-1978. In *The ivory trade and the future of the African elephant* (coord. S. Cobb), Vol. 2, Technical Reports, Section 4.1. The Ivory Trade Review Group, Oxford. **Annotation:** Data useful to estimate ivory export during the past few decades notes a change in reporting occurred in late 1970s does not allow for continuous series in reports before and after that. Figures should be considered as quests rather than absolute amounts [ID-H/M&DR].
- 4688 LijW PEARCE, David W. and BURGESS, Joanne. (1989). The final demand for raw ivory. In *The ivory trade and the future of the African elephant* (coord. S. Cobb), Vol. 2, Technical Reports, Section 4.3. The Ivory Trade Review Group, Oxford.
- 4689 LijW PEARCE, David W. and BURGESS, Joanne. (1989). The value to Africa of the raw ivory trade. In *The ivory trade and the future of the African elephant* (coord. S. Cobb), Vol. 2, Technical Reports, Section 4.2. The Ivory Trade Review Group, Oxford. **Annotation:** Value of elephants in tourism needs to be equated with value from export of ivory. No attempts made at former but figures for value of exports based on Customs statistics noted for nine countries. Ivory exports do not provide significant returns in any country, it is assumed that much of revenue accrues to private individuals, even non-nationals [ID-H/M&DR].
- 4690 LcgW PEARCE, Fred. (1997). Changing the game. *New Scientist*, 154(2085):14-15.
- 4691 \*vaU PEI, W. (1987). Carnivora, Proboscidea and Rodentia from Liucheng *Gigantopithecus* cave and other caves in Guangxi. *Memoir of the Institute of Vertebrate Paleontology and Paleoanthropology, Academia Sinica*, 18:5-119 [in Chinese with English summary].
- 4692 EjhB PERIS, M[erlin]. (1991/92). Knox on elephants. *The Sri Lanka Journal of Humanities* (University of Peradeniya. Golden Jubilee Commemoration double volume), 17/18:1-32. **Annotation:** Robert Knox an Englishman captured by king of Kandy (Sri Lanka) in the 17th century and kept prisoner. Though a prisoner, he was free to roam about the kingdom. On his return to England he wrote a book on his experiences. He wrote about elephants both tame and wild in and around kingdom [JJa].
- 4693 EdzB PERIS, M[erlin]. (1992). Nila in elephants: physical fact or human input? *Loris*, 19(6):199-203.
- 4694 EicW PERIS, M[erlin]. (1993). The irony of ivory. *Loris*, 20(2):56-60.
- 4695 EhvB PERIS, Merlin. (1998). Abusing the elephant: pseudo-specification and prognostication in ancient elephant lore. Abstract presented at *National Symposium on Elephant Management and Conservation* (ed. Jayantha Jayewardene and Charles Santiapillai), pp. 12-13. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 4696 LicW PERLEZ, Jane. (1990). Ivory trading ban said to force factories to shut. *New York Times* [22 May], page A14. **Annotation:** Quote from Esmond Bradley Martin — "...in Beijing only 5 of 550 ivory carvers are still employed at the Beijing Ivory Carving Factory, which last year was the biggest in the world" [E/MKM].
- 4697 EorC PERRIN, Thomas E. (1994). *Elephas maximus*: male-to-female chemosignals (pheromones) from temporal gland secretions and their chemical analyses. Masters thesis, Oregon Graduate Institute, Beaverton (Oregon).
- 4698 EorC PERRIN, Thomas E. and RASMUSSEN, L. E. L. (1994). Chemosensory responses of female Asian elephants (*Elephas maximus*) to cyclohexanone. *Journal of Chemical Ecology*, 20(11):2857-2866. **Annotation:** Olfaction, biochemistry, captivity, behavior, musth, WPZ [MPK].
- 4699 BapB PERRIN, Thomas E., RASMUSSEN, L. E. L., GUNAWARDENA, Rohith, and RASMUSSEN, R. A. (1996). A method for collection, long-term storage, and bioassay of labile volatile chemosignals. *Journal of Chemical Ecology*, 22(2):207-221. **Annotation:** Procedure for headspace sampling, long-term storage of organic volatiles coupled with gas chromatographic mass spectrometric analysis used to study volatile chemosignals in biological secretion prior to bioassay [E/ECM, abstract].
- 4700 \*avU PETERS, A. LAMMERS, Th., and MOL, D. (1991). Mastodonten-kiezen uit Liessel (Noord-Brabant). *Cranium*, 8(2):89-96. **Annotation:** Proboscidean remains dredged from sand-pit of Hoogdonk brickyard in Liessel, The Netherlands: two crowns of molars from two left lower jaws of *Mammut borsoni*, and fragment of juvenile molar of *Anancus arvernensis* [E/ECM].
- 4701 LjcW PETERSEN, Karen. (1993). Elephants I know. *Wildlife Conservation*, 96(2):38-43. **Annotation:** Elephant behavior in question and answer session with Cynthia Moss who has studied elephants in ANP for twenty years. Elephants learn through play, direction, imitation, and as in human society, experience is passed down from elder of the family [ID-H/M&DR].
- 4702 LjcW PETRIDES, George A. and SWANK, Wendell G. (1991). Herd composition in a dense African elephant population. In *African wildlife: research and management*. Proceedings of an international symposium (ed. F. I. B. Kayanja, and E. L. Edroma), pp. 84-87, Kampala, Uganda, 8-11 December, 1986, Proceedings: ICSU, Paris. **Annotation:** Herd composition during a time of high elephant population was estimated in QENP. Male, female, pair, harem and mixed herd types were defined by adults present. Among adults, females outnumbered males 2 to 1. Two-thirds of adult males were alone or in small scale herds with about one third consorting with females. Nearly all females indicated a 20 month anestrus period and a 3.5 year interval between births, identical with data from Zambia by Hanks [ID-H/M&DR].



- 4703 **BicW** PFEFFER, Pierre. (1987). Amnistie pour les elephants. La Courrier de la Nature, 112:28-35. **Annotation:** CITES must be strengthened for protection of the African elephant to be effective. Familial and care giving aspects of elephants, suggests conservation of this species very important to humans [ID-H/M&DR].
- 4704 **BcjW** PFEFFER, Pierre. (1989). Amnistie Pour les Elephants. Flammarion, Paris, total pages not provided.
- 4705 **LicW** PFEFFER, Pierre. (1989). L'elephant en annexe I de la CITES: Victoire de l'Afrique, victoire du bon sens, victoire de la base contre les apparatchiks!: La Courrier de la Nature, 123:16-25. **Annotation:** 1989 CITES meeting that put African elephants on Appendix I. Still much to be done to ensure species survival [ID-H/M&DR].
- 4706 **LjW** PFEFFER, Pierre. (1989). The life and death of a giant: the African elephant. Malesherbes, France, 192 pp. [French version: Vie et mort d'un géant, l'éléphant d'Afrique. Flammarion, Paris, 191 pp.].
- 4707 **LmcW** PFEFFER, Pierre. (1991). Estimations actuelles des populations d'elephants d'Afrique. La Courrier de la Nature, 126:30-35. **Annotation:** Author disagrees with elephant population estimates of 1989 published by African Elephant and Rhino Specialist Group of IUCN. For Africa author estimates 330,000 elephants compared to 609,000 by specialist group [ID-H/M&DR].
- 4708 **LicW** PFEFFER, Pierre. (1992). Elephants: le dossier sud-Africain. La Courrier de la Nature, 131:22-24, 29. **Annotation:** Analyses southern African attempts to return elephants to Appendix II of CITES so products can be sold and exported. Formation of SACIM, suggests population figures those countries give and management programs they say they have are not as strong as indicated [ID-H/M&DR].
- 4709 **LicW** PFEFFER, Pierre. (1992). Elephants: le dossier sud-Africain, 2eme partie. Le Courrier de la Nature, 132:14-20. **Annotation:** Author thinks inaccuracies in southern African countries' arguments raised at CITES meeting in order to downgrade elephants in CITES appendices as to utilize products again. Information on wildlife product utilization and ivory exports from and through South Africa [ID-H/M&DR].
- 4710 **LciW** PFEFFER, Pierre. (1994). Elephants win at CITES — South Africa backs down. AWI Quarterly, 43(4):4.
- 4711 **LicW** PFEFFER, Pierre. (1994). L'Afrique du Sud demande, une fois de plus, a reprendre le commerce de l'ivoire! Le Courrier de la Nature, 147:28-35. **Annotation:** Southern African countries, led by South Africa, try to downgrade elephant to Appendix II. Argues against change: ecologically not sound, impossible to control with range states having different rules [ID-H/M&DR].
- 4712 **LicW** PFEFFER, Pierre and CLARK, B. (1990). Amnistie pour les elephants: actualite de la campagne. La Courrier de la Nature, 124:14-18. **Annotation:** Lauds placement of African elephant in Appendix I of CITES, but notes fact that actual international adherence to ban on ivory and product utilization must be carefully monitored [ID-H/M&DR].
- 4713 **\*avU** PFRETZSCHNER, Hans Ulrich. (1990). Hypsodonty and enamel microstructure in large herbivorous mammals. Journal of Vertebrate Paleontology, Abstracts of Papers, Volume 10, Supplement to Number 3:38A.
- 4714 **\*apU** PFRETZSCHNER, H. U. (1992). Enamel microstructure and hypsodonty in large mammals. In Structure, function and evolution of teeth (ed. P. Smith and E. Tchernov), pp. 147-162. Freund Publishing House, London and Tel-Aviv, 570 pp.
- 4715 **EcwW** PHANTHAVONG, Bouaphanh and SANTIAPILLAL, Charles. (1993). Conservation of elephants in Laos. Tigerpaper, 20(3):21-29.
- 4716 **EcwW** PHANTHAVONG, Bouaphanh and SANTIAPILLAL, Charles. (1992). Conservation of elephants in Laos. IUCN/SSC Asian Elephant Specialist Group Newsletter, 8:25-33, 48. **Annotation:** Estimated population 2,000-3,000 in 20-22 discontinuous areas, more than half in south. Conversion of forests to other land-use major conservation problem; timber extraction and hydropower generation are Laos' top foreign exchange earners. Poaching widespread, human-elephant conflicts increasing [JLP].
- 4717 **LapB** PHILLIPS, Polly K. and HEATH, James Edward. (1992). Heat exchange by the pinna of the African elephant (*Loxodonta africana*). Comparative Biochemistry and Physiology, 101A(4):693-699. **Annotation:** Surface temperatures of pinnae of four female elephants were measured at ambient temperatures between 14 and 32 degrees C using infrared thermography. Instantaneous heat loss under observed conditions was calculated using these values. Using value of 17 kcal/kg/day, those heat losses account for 0.65-4.64% of the animals' standard metabolic rates, considering side of one ear only. Model of heat flow across flat vertical plate was constructed and compared to actual values. Up to 100% of elephant's heat loss needs can be met by movement of pinna and by vasodilation. Thermography indicates that temperature distribution pattern across pinna changes with ambient temperature and that areas of specialized motor control exist [ID-H/M&DR].
- 4718 **\*vwU** PICKFORD, M. (1987). The geology and paleontology of the Kanam erosion gullies (Kenya). Mainzer Geowissenschaftliche, 16:209-226.
- 4719 **LgjW** PICKFORD, Peter D. (1987). An interlude with elephants. African Wildlife, 41(2):71.
- 4720 **EdqC** PILASKI, J., ROSENBRUCH, M., GELDERBLOM, H., OLDERDING, P., and HAGENBECK, C. (1987). Herpesvirus infection in an Asiatic elephant. In Erkrankungen der Zootiere (ed. R. Ippen and H.-D. Schröder), pp. 179-184. Verhandlungsbericht des XXIX. Internationalen Symposiums über die Erkrankungen der Zootiere. Akademie-Verlag, [East] Berlin, German Democratic Republic.
- 4721 **EdqC** PILASKI, J., JENTSCHKE, J., SINN, D., FRANCKE, R., ROSENBRUCH, M., OLDERDING, P., and MOLLE, G. (1988). Two different viral diseases (pox and herpes) in Asian elephants in a small traveling circus. In Erkrankungen der Zootiere (editor unknown), pp. 263-269. Verhandlungsbericht des XXX Internationalen Symposiums über die Erkrankungen der Zootiere. Akademie-Verlag, [East] Berlin, German Democratic Republic.
- 4722 **LcjW** PINCHIN, Andrew. (1993). Elephant. In Conservation and wildlife management in Zimbabwe (ed. unknown), pp. 35-45. University of Bristol Printers, Bristol.
- 4723 **LkcW** PINCHIN, Andrew. (1994). Elephant culling: rationale, practice, alternatives. International Zoo News, 41(5):14-21.
- 4724 **\*vwU** PINO, M. (1989). Regional and site geology. In Monte Verde: a late Pleistocene settlement in Chile, Volume I, Palaeoenvironment and site context (ed. T. D. Dillehay), pp. 89-132. Smithsonian Institution, Washington, D.C., 306 pp.
- 4725 **LicW** PISTRANG, M. A. (1991). Reply to Farewell to Africa? Audubon, 93(1):106-107. **Annotation:** See Reference no. 3875 [SLS].
- 4726 **LicW** PITMAN, Dick. (1989). Une alternative zimbabweenne a l'interdiction de l'ivoire. Nature et Faune, 5(4):17-34. **Annotation:** Translation of author's report "Elephants and people: Zimbabwe's alternative to the ivory trade bans". Outlines management strategy of Zimbabwe's CAMPFIRE program seen as alternative to ivory ban. Population distribution of elephants, in and outside protected areas; need for wildlife utilization in economic development [ID-H/M&DR].

- 4727 LicW PITMAN, Dick. (1990). Elephants and people: Zimbabwe's alternative to the ivory trade bans. The Zimbabwe Trust, Harare, 16 pp. **Annotation:** Management strategy and ongoing programs seen as alternatives to ivory ban and elimination of trade. Growth of Zimbabwe's elephant populations, negative aspects of bans, outlines range of elephants in Zimbabwe inside and outside protected areas and need to control numbers so human land use needs and elephant populations can co-exist. Focus on utilization of wildlife and elephant as a resource. Conflict between western views of conservation and economic development in range states and need for community involvement at local level, Zimbabwe's CAMPFIRE program [ID-H/M&DR].
- 4728 BrpB PLOTKA, E. D., SEAL, U. S., ZAREMBKA, F. R., SIMMONS, L. G., TEARE, A., PHILLIPS, L. G., HINSHAW, K. C., and WOOD, D. G. (1988). Ovarian function in the elephant: luteinizing hormone and progesterone cycles in African and Asian elephants. Biology of Reproduction, 38:309-314. **Annotation:** See Reference nos. 2944, 5766 [MPK].
- 4729 BrpC PLOUZEAU, E., DE CUNHA, S., and SHAW, H. J. (1994). Le cycle ovarien des elephants d'Asie et d'Afrique, *Elephas maximus et Loxodonta africana*: techniques de suivi de la reproduction des femelles en captivite. Revue de Medicine Veterinaire, 145(12):905-911.
- 4730 LbcW PLUMPTRE, A. J. (1994). The effects of trampling damage by herbivores on the vegetation of the Parc National des Volcans, Rwanda. African Journal of Ecology, 32(2):115-129. **Annotation:** Rates of vegetation regeneration after trampling by elephants, buffalo, mountain gorilla show little difference except vegetation trampled by elephants takes longer to recover. 1.5% of vegetation shows signs of permanent trampling damage, but regeneration rates indicate little reduction in available biomass [ID-H/M&DR].
- 4731 BnwW PLUMPTRE, A. J. (1996). Modeling the impact of large herbivores on the food supply of mountain gorillas and implications for management. Biological Conservation, 75(2):147-155. **Annotation:** Diet and habitat overlap use of mountain gorilla populations and four other large herbivore populations in VNP. Computer simulations indicate elephants could have most serious effect on gorilla populations while other herbivores initially assumed highly competitive would have little effect [ID-H/M&DR].
- 4732 LmeW PLUMPTRE, A. J. and HARRIS, S. (1995). Estimating the biomass of large mammalian herbivores in a tropical montane forest: a method of faecal counting that avoids assuming a 'steady state' system. Journal of Applied Ecology, 32(1):111-120. **Annotation:** Faecal counting techniques used to census five large herbivore species during 1988 and 1989 in Parc National des Volcans, Rwanda. Population density estimates for standing crop counts of feces usually correct counts for defecation rate of the animal and decomposition rate of dung, assuming decay rate is constant. Seven elephants were present in study area during June-August and densities for area of each habitat type gave a value of 7.04 elephants [ID-H/M&DR].
- 4733 LgjW POCKLEY, P. (1995). Seeing Kruger from the outside. On Track (South Africa), May/June 1995:58-59.
- 4734 LrbW POOLE, Joyce H. (1987). Raging bulls. Animal Kingdom, 90(6):18-25. **Annotation:** Based on observation in ANP, the author describes the behavior of male elephants in musth. The musth condition appears to announce that a male is prepared to aggressively defend or gain access to an estrous female [ID-H/M&DR].
- 4735 LrvW POOLE, Joyce H. (1987). Rutting behavior in African elephants: the phenomenon of musth. Behaviour, 102(3/4):283-316. **Annotation:** Ten year study in ANP. Occurrence, duration of musth is age related. Males more aggressive then, spend more time with females. Though males in musth were observed year round, frequency was highest during and following two rainy seasons. In general, the better the rainfall the higher the frequency of males in musth. Musth periods were asynchronous, each male came into musth at specific time of year with period relatively consistent, particularly in older males. Musth in elephants is similar to physical, behavioral manifestation of rut in other male mammals. However, since estrous cycle in female elephants is less clumped than in most ungulates, male elephants have different temporal pattern of rutting [ID-H/M&DR].
- 4736 LbpW POOLE, Joyce [H.]. (1988). Elephant trunk calls. Swara, 11(6):28-31. **Annotation:** Research conducted in ANP, on vocalization among elephants, specifically audible and inaudible or ultrasonic sound communication [ID-H/M&DR].
- 4737 LbrW POOLE, Joyce H. (1989). Announcing intent: the aggressive state of musth in African elephants. Animal Behavior, 37(5):140-152. **Annotation:** Predictions derived from game theory suggest animals should not signal intentions during conflict situations. During musth, male elephants (in ANP) announce a state of heightened aggression with signals that are unbluffable. Since smaller musth males in poor condition are able to dominate larger, normally higher-ranking, non-musth males in good condition, musth provides a useful system with which to examine possibility of honest signaling of motivation, rather than of fighting ability. Despite highly aggressive state of males in musth, escalated contests are rare. Behavior of musth and non-musth males suggests opponents able to estimate their often rapidly changing roles in asymmetries with relative accuracy. Elephants have asynchronous sexually active periods, hence resource value varies both with age and fluctuating sexual state of each individual [ID-H/M&DR].
- 4738 LruW POOLE, Joyce H. (1989). The effects of poaching on the age structures and social and reproductive patterns of selected East African elephant populations. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 5.1. The Ivory Trade Review Group, Oxford. **Annotation:** Data from ground observations examining effect of ivory poaching on social and reproductive patterns of elephant populations in TNP, MNP, and QENP with long-term data collected on well protected ANP population [ID-H/M&DR].
- 4739 LrbW POOLE, Joyce H. (1989). Mate guarding, reproductive success and female choice in African elephants. Animal Behavior, 37(5):842-849. **Annotation:** Male guarding females, male mating success and female choice among elephants in ANP, from 8-years of study. Males under 25 were unable to compete successfully for access to estrous females. Males between 25 and 35 obtained matings in early and late estrus while large males over that age guarded females in mid-estrus. Estrous females exercise choice by soliciting guarding behavior from musth males. Females in mid-estrus give loud, low frequency calls that may attract distant males and incite male-male competition [ID-H/M&DR].
- 4740 LcuW POOLE, Joyce H. (1990). Elephant conservation and management. In Kenya Wildlife Service: policy framework and development programme, 1991-96. Kenya Wildlife Service, Nairobi, Annex 7B. iii, 54 pp. **Annotation:** Over last two decades, poaching and habitat loss caused decline, extermination and compression of elephant populations. Numbers declined from 130,000 in 1973 to an estimated 16,000 by 1989. Since mid 1989, rate of killing declined sharply result of international ivory ban and more effective anti poaching operations [ID-H/M&DR].

- 4741 LcjW POOLE, Joyce H. (compiler). (1990). Elephant conservation in eastern Africa: a regional overview. In Regional perspectives and situation regarding elephant conservation and the ivory trade. IUCN, pp. 7-54.
- 4742 LiuW POOLE, Joyce H. (1992). Kenya's elephants: a very different story to tell. Swara, 15(1):29-31. **Annotation:** The situation for elephants two years after imposition of international ivory ban when ivory prices dropped from US \$30 to \$3. This and improved anti poaching measures of new Kenya Wildlife Service has drastically reduced loss due to poaching from an average per year of 5,000 between 1973 and 1989 to 55 in 1990 and 18 in 1991 [ID-H/M&DR].
- 4743 LrbW POOLE, Joyce H. (1992). Musth in African elephants. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 87-91. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also Simon & Schuster, London. **Annotation:** Social and sexual behavior of mature elephants in ANP, study; infrasound communication [ID-H/M&DR]. See Reference no. 2354 [MPK].
- 4744 LrcW POOLE, Joyce H. (1993). Kenya's initiatives in elephant fertility: regulation and population control techniques. Pachyderm, 16:62-65. **Annotation:** AfESG meeting, Victoria Falls, Zimbabwe, Nov. 17th-22nd 1993. In last two decades, Kenya's elephant population reduced from 170,000 to 24,000 by poaching. As a result of 1989 ivory trade ban and increased protection efforts by Kenya Wildlife Service, illegal killing of elephants is essentially stopped. The Service opposes to culling and is embarking on a program of research and development for humane methods of population control [ID-H/M&DR].
- 4745 LrcW POOLE, Joyce H. (1994). Logistical and ethical considerations in the management of elephant populations through fertility control. In Proceedings of the second international NCCR (National Centre for Research in Reproduction) conference on 'advances in reproductive research in man and animals' (ed. Charanjit Singh Bamba), pp. 278-283. Institute of Primate Research, National Museums of Kenya, Nairobi.
- 4746 LrbW POOLE, Joyce H. (1994). Sex differences in the behaviour of African elephants. In The differences between the sexes (ed. Roger V. Short and E. Balaban), pp. 331-346. Cambridge University Press, Cambridge, 496 pp. **Annotation:** Musth, social relations, reproduction, ANP. Book reviewed in "Journal of Mammalogy", 77(2):594-597, 1996 [MPK].
- 4747 BcbW POOLE, Joyce H. (1995). Conflict, compression, and management: consequences for elephant behavior. Abstracts, The Wildlife Society, Second Annual Conference, Portland, Oregon, USA, September 12-17, 1995, p. 103.
- 4748 LjrW POOLE, Joyce [H.]. (1996). The African elephant. In Studying elephants (ed. Kadzo Kangwana), pp. 1-8. African Wildlife Foundation, Nairobi, Kenya. 178 pp. **Annotation:** Family: related females and their immature offspring (2-30 individuals). Bond or kin groups: have as many as five closely allied families. Clan: bond groups that use same dry season home-range. Age of first ovulation ranges from 7 to 22, depends on population densities and food resources. In ANP youngest female to give birth was 8 years old at conception. Males produce sperm at around 14. The youngest observed in musth in ANP was 22 years old. A male's testosterone levels rise to five times its non-musth level. Gestation: 21.5 months. Male average birth weight: 264 pounds; female, 200 pounds. Communicate with frequencies at 14 Hz up to 3 to 6 miles. Females use 22 vocalizations; males, seven. Mean daily intake of food: males, 4% to 7% of body weight; lactating females, more [JLP].
- 4749 LgbW POOLE, Joyce [H.]. (1996). Coming of age with elephants: a memoir. Hyperion Press, New York, 288 pp.; also, Hodder & Stoughton, London. **Annotation:** Author's significant contributions to knowledge of elephant behavior — especially about "musth" in male elephants and infrasonic communication. Personal account of life in Africa with elephants, and social struggles she faced as a woman and scientist; reviewed in "JEMA", 7(1):77-78 [MPK].
- 4750 BgjB POOLE, Joyce H. (1997). Elephants. Voyageur Press, Stillwater (Minnesota), 72 pp. **Annotation:** Reviewed by Tracey Anderson in "Animal Keepers' Forum", 25(9):365. Description of order Proboscidea, their evolution, issues of poaching and habitat destruction. Easy to read information in non-scientific manner [E/ECM, review].
- 4751 LbjW POOLE, Joyce H. (1998). Communication and social structure of African elephants. In Elephants. Care for the Wild International, United Kingdom.
- 4752 LapW POOLE, Joyce H. (1999). Signals and assessment in African elephants: evidence from playback experiments. Animal Behaviour, 58(1):185-193.
- 4753 LcjW POOLE, Joyce H. and DOBSON, A. P. (1992). Exploitation and recovery of African elephant populations. Elephant and Ivory Information Service. African Wildlife Foundation. Special Issue 19.
- 4754 LrbW POOLE, Joyce H. and MOSS, Cynthia J. (1989). Elephant mate searching: group dynamics and vocal and olfactory communication. In The biology of large African mammals in their environment (ed. P.A. Jewell & G.M.O. Maloiy), 61:111-125. Symposium of the Zoological Society of London. Clarendon Press, London. **Annotation:** Male and female live in two social systems and range over large areas, often at low densities at ANP. Availability of both estrous females and musth males at any particular time is extremely low. Females search for musth males by moving into larger aggregations and possibly listening for their calls and following their urine trails. Estrous females attract males by conspicuous postures and behaviors, particular vocalizations and olfactory signaling with urine. Musth males search for females by associating with large cow/calf groups, by covering long distances, by listening for the females' loud, very low frequency calls and by monitoring female urine and dung. They attract females by calling and by leaving trails of strong-smelling urine [ID-H/M&DR].
- 4755 LiuW POOLE, Joyce H. and THOMSEN, Jorgen B. (1989). Elephants are not beetles: implications of the ivory trade for the survival of the African elephant. Oryx, 23(4):188-198. **Annotation:** Scientific community agrees that it is killing of African elephants for ivory trade that has caused dramatic declines in elephant populations over the past decade [ID-H/M&DR].
- 4756 LbeW POOLE, Joyce H., PAYNE, Katharine B., LANGBAUER, William R., Jr., and MOSS, Cynthia J. (1988). The social contexts of some very low frequency calls of African elephants. Behavioral Ecology and Sociobiology, 22(6):385-392. **Annotation:** Several types of low frequency calls made by African elephants in ANP, and contexts in which they occurred. Calls had fundamental frequencies ranging from 14-35 Hz and sound pressure levels as high as approximately 103 dB at 5m from the source. Very low frequency sounds are subject to little environmental attenuation, suggesting that sounds at the frequencies and sound pressure levels measured from elephants may be audible to conspecifics several km away. Long-term records on behavior of elephants and on contexts of specific call types suggest that

- elephants make use of infrasound in spatial coordination of groups and as they search for mates [ID-H/M&DR].
- 4757 \*huU POORTVLIET, Rien. (1994). *Journey to the Ice Age: mammoths and other animals of the wild*. Abrams, New York, 224 pp. Translated from Dutch by Karin H. Ford. **Annotation:** Hunting in prehistoric Netherlands [MSW].
- 4758 BvoB PORTER, Calvin A., GOODMAN, Morris, and STANHOPE, Michael J. (1996). Evidence on mammalian phylogeny from sequences of exon 28 of the von Willebrand Factor gene. *Molecular Phylogenetics and Evolution*, 5(1):89-101. **Annotation:** *Dugong* (Sirenia) joins *Procavia* (Hyracoidea) and this branch joins the branch of living elephants (Proboscidea), and these four taxa join the armadillo (Tubulidentata), and the new branch joins elephant shrew (Macroscelidea) [JS].
- 4759 LiuW POTGIETER, De Wet. (1995). *Contraband: South Africa and the international trade in ivory and rhino horn*. Queillerie Publisher (Pty) Ltd., Cape Town, 195 pp. **Annotation:** Uncovering ivory and rhino horn smuggling [JS].
- 4760 EbtC POVINELLI, D[aniel]. J. (1989). Failure to find self-recognition in Asian elephants (*Elephas maximus*) in contrast to their use of mirror cues to discover hidden food. *Journal of Comparative Psychology*, 103(2):122-131.
- 4761 LmcW POWELL, J. A., KOONTZ, F. W., and ELKAN, P. (1993). Results of tagging forest elephants with satellite and VHF radio tags in south western Cameroon. *Abstracts of the 6th International Theriological Congress*, held in Sydney, New South Wales, Australia, July 1-10, 1993, 6:242-243.
- 4762 LjmW POWELL, J., VEDDER, A., and MORLAND, H. S. (1993). Elephants on the air. *Wildlife Conservation*, 96(4):8. **Annotation:** Movements of radio-collared elephants (*Loxodonta africana*) in Korup National Park, Cameroon [MPK].
- 4763 LtbC PRETORIOUS, L. (1994). Bosbeheer met grootvoete duur en riskant [Bush clearing with elephants expensive and risky]. *Lanbou Weekblad*, 26 August 1994:20-21. **Annotation:** Abstract in "Bushcraft", 1(1):20 — "African elephants not recommended as bush-clearers... too many problems" [MPK].
- 4764 BzgC PRICE, Charles Edwin. (ca. 1992). *The day they hung the elephant*. The Overmountain Press, Johnson City (Tennessee), 44 pp. **Annotation:** The story of 'Murderous Mary', the elephant hanged for murder in 1916 [E/ECM].
- 4765 LcwW PRICKETT, R. J. (1992). The 'Let my people go' elephant project. *Swara*, 15(4):34-36. **Annotation:** Attempts to plant trees in Treetops (AbNP), nature viewing area in response to excessive browsing by elephants and other wildlife [ID-H/M&DR].
- 4766 BbtC PRIEST, G. (1992). Caring for elephants and reducing the risks. *Zoonooz*, 65(2):12-15.
- 4767 BrqC PRIEST, G. (1992). Musth in Asian and African elephants. In *Elephant Keepers Manual*, pp. 42-47. Zoological Society of San Diego, San Diego (California).
- 4768 BqtC PRIEST, Gary M. (1994). The changing face of elephant management in the United States. *Pachyderm*, 18:61-69.
- 4769 LgwW PRINGLE, R. M. and DIAKITE, N. (1992). The last Sahelian elephants. *Swara*, 15(5):24-27. **Annotation:** Traditional co-existence of nomadic people of Chad and elephants. Migration trends of elephants in Sahel. Two recent large scale Sahelian droughts (1971-74 and 1984-85) set up competition between man and elephant [ID-H/M&DR].
- 4770 LemW PRINS, Herbert H. T. and DOUGLAS-HAMILTON, Iain. (1990). Stability in a multispecies assemblage of large herbivores in East Africa. *Oecologia*, 83:392-400. **Annotation:** Total biomass figures extrapolated from 9 years of aerial survey data between 1959 and 1984. Total biomass dominated by elephant and buffalo though herbivores averaging over 20 kg were counted. Individual species had large fluctuations in numbers, but in total herbivores assemblage different species compensated for fluctuations of other species. Result was overall constancy of herbivore biomass. Conclusion is total food consumption in LMNP system varied much less through the years than species composition of herbivores [ID-H/M&DR].
- 4771 LmcW PRINS, Herbert H. T. and VAN DER JEUGD, Henk P. (1993). Herbivore population crashes and woodland structure in East Africa. *Journal of Ecology*, 81(2):305-314. **Annotation:** Bush encroachment in LMNP between 1985 and 1991 showed shrub cover increment of 20% increment independent of initial (1985) bush cover. In same period elephant density decreased from 6 to 1/sq. km due to poaching, but bush encroachment preceded poaching. Shrub establishment in 2 areas coincided with anthrax epidemics which reduced impala population. Diameter increment of *Acacia tortilis* was 5.24 mm/year comparing well with 1961 measurements when earlier anthrax outbreak hit impala. Size measurements of *A. tortilis* indicated another even-aged stand establishment at end of 1880s, originating from bush establishment caused by rinderpest pandemic [ID-H/M&DR].
- 4772 LumW PRINS, Herbert H. T., VAN DER JEUGD, Henk P., and BEEKMAN, J. H. (1994). Elephant decline in Lake Manyara National Park, Tanzania. *African Journal of Ecology*, 32(3):185-191. **Annotation:** Elephants declined from 500 in 1984 to 150 in 1988 to 60 in 1991 due to poaching. In 1991 group sizes were distributed according to model of random association of individuals indicative of destruction of social framework by poaching [ID-H/M&DR].
- 4773 LmcW PRINZIVALLI, R. A. (1992). Investigating the use of infrared detectors to count elephants in a forest environment. *African Journal of Ecology*, 30:346-348. **Annotation:** Infrared imaging systems that count deer in snowy fields and seals on beaches, not viable for counting elephants under unbroken tree canopy that obscures emissions in thermal infrared bands [E/ECM].
- 4774 BgqB PRITCHARD, Warren. (1990). Elephants at Windsor Safari Park. In *Proceedings of the Fourth Elephant Keepers Workshop (Port Lympne Zoo Park, England)* (ed. Neil G. Spooner), pp. 4-5. Published by Port Lympne Zoo Park, Port Lympne, England, 35 pp.
- 4775 +vaB PROTERO, D. R., MANNING, E. M., and FISCHER, M. (1988). The phylogeny of the ungulates. In *The phylogeny and classification of the tetrapods. Volume 2: mammals* (ed. M. J. Benton), pp. 201-34. The Systematics Association, Special Volume No. 35B. Clarendon Press, Oxford, 329 pp.
- 4776 EggC PRYOR, Bill. (1998). The elephants' friend. *Animals*, 131(1):32-33, 38. **Annotation:** "Carol Buckley runs a unique sanctuary for Asian elephants" in Hohenwald, Tennessee [SLS].
- 4777 LicW PURDY, Judy B. (1998). Contraceptive safari. *University of Georgia Research Reporter*, 27(2):11-16. **Annotation:** Testing a vaccine for contraception in KNP [SLS]. See Reference nos. 2963, 2995, 4131, 4786, 5098, 5527 [ECM].
- 4778 LcwW PUTTERILL, Jessica. (1993). A milestone in elephant conservation. *The Farmer*, 63(40):14-15.
- 4779 LkcW PYE-SMITH, Charlie. (1998). Living with elephants. *People & the Planet*, 7(4):18-19. **Annotation:** Aim of Chobe Enclave Conservation Trust in Botswana is to generate profits for community through sale of a hunting quota of elephants. Over the past few years, it has

- built grinding mills, classrooms, a campsite, a petrol station and other facilities [E/ECM, p. 18].
- 4780 \*evU QI, Guoqin. (1993). The environment and ecology of the Lufeng hominoids. *Journal of Human Evolution*, 24(1):3-11. **Annotation:** Includes proboscidean taxa: Gomphotheriidae, *Gomphotherium* sp., ?*Serridentinus* sp., Mammutidae, and "*Zygodon lufengensis*" in Table p. 7 [ECM].
- 4781 \*vwU QI, Tao. (1992). The east most locality of Tertiary mammalian distribution in China. *Vertebrata PalAsiatica*, 30(4):325-326 [in Chinese with English summary]. **Annotation:** *Zygodon* sp. on p. 325 [ECM].
- 4782 \*vwU QIU, Z. (1990). The Chinese Neogene mammalian biochronology - its correlation with the European Neogene mammalian zonation. In *European Neogene mammal chronology* (ed. E. H. Lindsay, V. Fahlbusch, and P. Mein), pp. 527-556. Plenum, New York [copyright date, 1989], 658 pp.
- 4783 \*vwU QIU, Zhanxiang, YAN, Deta, CHEN, Guanfang, and QIU, Zhuding. (1987). Preliminary report on a paleontological expedition in Tung Gur, Inner Mongolia. *Academia Sinica*, 19:1487-91 [in Chinese].
- 4784 \*vwU QIU, Zhonxiang and QIU, Zhuding. (1990). The sequence and age determination of mammalian local faunas in the late Tertiary of China. *Journal of Stratigraphy*, 14(4):241-260.
- 4785 EftC QUIRT, Steve. (1988-89). The elephant-lore of the Hindus. *Hasti Newsletter*, 9:1, 6. **Annotation:** Review and commentary on the book by Franklin Edgerton of the same title (1985), published by Motilal Banarsidass, Delhi [SLS].
- 4786 BroB RAAH, Cobus. (1996). Developments with immunocontraceptives for elephants. *Pachyderm*, 22:87. **Annotation:** *Loxodonta africana*, population, culling, biochemistry; cf. Reference nos. 2963, 2995, 4131, 4777, 5098, 5527 [ECM].
- 4787 LakW RAAH, Jacobus P. (1993). Chemical capture of the African elephant *Loxodonta africana*. In *The capture and care manual: capture, care, accommodation and transportation of wild African animals* (ed. Andrew A. McKenzie), pp. 484-493. Wildlife Decision Support Services and South African Veterinary Foundation, Pretoria, South Africa, 730 pp. **Annotation:** Translocation, behavior, physiology, respiration, temperature, anatomy, KNP [MPK].
- 4788 LbzB RAAH, Jacobus P. (1993). Transportation of the African elephant *Loxodonta africana*. In *The capture and care manual: capture, care, accommodation and transportation of wild African animals* (ed. A. A. McKenzie), pp. 493-498. Wildlife Decision Support Services, South African Veterinary Foundation, Pretoria, South Africa, 730 pp. **Annotation:** Translocation, captivity, behavior, sleep, KNP [MPK].
- 4789 LdpC RAAH, Jacobus P. and BENGIS, Roy G. (1995). The evaluation of a vaccine against encephalomyocarditis infection in elephants (*Loxodonta africana*) under controlled conditions. *Proceedings of the American Association of Zoo Veterinarians, Wildlife Disease Association and American Association of Wildlife Veterinarians joint conference August 12-17, 1995*, pp. 304-308.
- 4790 LmbW RABINOWITZ, Alan and TUN KHAING, Saw. (1998). Status of selected mammal species in North Myanmar. *Oryx*, 32(3):201-208 **Annotation:** 1996 and 1997 data from this region; elephants are no longer present [E/SLS].
- 4791 LmbW RAE, Virginia. (1993). Meru. *Wildlife Times*, 2(1):9 **Annotation:** Radio tracking to monitor elephant migrations [PFH].
- 4792 EdqC RAHMAN, H., DUTTA, P. K., and DEWAN, J. N. (1988). Foot and mouth disease in elephant (*Elephas maximus*). *Journal of Veterinary Medicine, B (Infectious Diseases, Immunology, Food Hygiene, Veterinary Public Health)*, 35(1):70-71.
- 4793 EcjW RAHMAN, Md. Khalilur. (1996). Bangladesh protected areas: wildlife. *Tigerpaper*, 23(3):9-13. **Annotation:** Table 1 lists wildlife sanctuaries, national parks, game reserves in Bangladesh, including those which preserve elephants. Table 2 lists endangered and threatened wildlife of Bangladesh, including elephants [ECM].
- 4794 +gvB RAINGER, Ronald. (1991). *An agenda for antiquity: Henry Fairfield Osborn and vertebrate paleontology at the American Museum of Natural History, 1890-1935*. The University of Alabama Press, Tuscaloosa (Alabama), xiii + 361 pp. **Annotation:** How and why vertebrate paleontology flourished at AMNH under a leading scientist in that field. Pinnacle of his work related to elephants is two-volume set "The Proboscidea". See Reference no. 1740 [SLS].
- 4795 BdqC RAKES, Randall. (1995). Treatment of splitting nails. *Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995)*, 9 unnumbered pages.
- 4796 EcjW RAMAKRISHNAN, B. (1995). Human interference and its impact on wildlife corridor in Sathyamangalam and Coimbatore Forest division, Southern India. MSc Dissertation, A.V.C. College, Mannanpandal, submitted to the Bharathidasan University, Trichy.
- 4797 EcwW RAMAKRISHNAN, B., SIVAGANESAN, N., and SRIVASTAVA, Rajiv (1997). Human interference and its impact on elephant corridors in south India. *Gajah*, 18:1-20. **Annotation:** Includes five tables on plant species that elephants eat, and many used as fuel by local inhabitants in two corridors (Sujalkuttai-Bannari and Kallar-Vedar Colony), Tamil Nadu [JJ].
- 4798 EmcW RAMAKRISHNAN, U., SANTOSH, J. A., and SUKUMAR, Raman (eds). (1991). *Censusing elephants in forests*. Asian Elephant Conservation Centre of IUCN/SSC Asian Elephant Specialist Group (Bangalore), Technical Report no. 2, 92 pp.
- 4799 EcjW RANASINGHE, Hemanthi. Community participation in managing human-elephant conflicts in Kahalle-Pallekelle, Sri Lanka. Abstract presented at *National Symposium on Elephant Management and Conservation* (ed. Jayantha Jayewardene and Charles Santiapillai), p. 12. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 4800 \*evU RANCY, A. (1991). Pleistocene mammals and paleoecology of the western Amazon. D. Phil. thesis. University of Florida, Gainesville, 151 pp.
- 4801 LcuW RANDELL, Eric. (1990). The Leakey's offensive. *Outside*, 25(1):10, 36-41, 80.
- 4802 EwmW RAO, C. N. (1995). Status report of elephants in Andhra Pradesh. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 94-96. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 4803 ErbC RAPAPORT, L. and HAIGHT, J. (1987). Some observations regarding allomaternal caretaking among captive Asian elephant (*Elephas maximus*). *Journal of Mammalogy*, 68(2):438-442. **Annotation:** See also Reference no. 4116 [MPK].
- 4804 BroB RASMUSSEN, L. E. L. (1988). Chemosensory responses in two species of elephants to constituents of temporal gland secretion and musth urine. *Journal of Chemical Ecology*, 14(8):1687-1711. **Annotation:** Olfaction, temporal gland secretion, musth, reproduction, WPZ [MPK].

- 4805 EecW RASMUSSEN, L. E. L. (1994). Review of "The Asian elephants: ecology and management" by Raman Sukumar, published 1992 by Cambridge University Press, Cambridge, U.K., xvii + 255 pp. *Journal of Wildlife Management*, 58(2):384-385.
- 4806 BpaB RASMUSSEN, Bets [L. E. L.]. (1995). The biggest smeller. *Journal of the Elephant Managers Association*, 6(2):58-60. **Annotation:** Elephants can detect small amounts of odors far away and can sort out a single chemical message buried among a million other compounds in urine [E/ECM].
- 4807 BroB RASMUSSEN, L. E. L. (1995). Evidence for long-term chemical memory in elephants. *Chemical Senses*, 20:762 [Association for Chemoreception Sciences, Abstract 237]. **Annotation:** Olfaction, biochemistry, captivity, behavior, estrus, social relations, reproduction, genetics, parenting, WPZ [MPK].
- 4808 EprB RASMUSSEN, L. E. L. (1996). The chemical identification of a preovulatory pheromone: a reproductive chemosignal from female to male Asian elephants. *Journal of Elephant Managers Association*, 7(2):52-56.
- 4809 LorB RASMUSSEN, Bets [L. E. L.]. (1997). What chemical compounds do male African elephants (*Loxodonta africana*) emit in their temporal gland secretions during musth? *Journal of the Elephant Managers Association*, 8(1):61-67.
- 4810 EpoB RASMUSSEN, L. E. L. (1998). Chemical communication: an integral part of functional Asian elephant (*Elephas maximus*) society. *Ecoscience*, 5(3):410-426 [in English, abstracts in English and French]. **Annotation:** Combinations of compounds (urine, temporal gland secretions, breath) that retain bioactivity throughout chemical extractions and playback experiments, based on behavioral and/or chemosensory effects of whole exudate chemical signals on lifestyles, especially mating. Several chemical signals deciphered, one is a preovulatory female-to-male pheromone, (Z)-7-dodecen-1-yl acetate. This pheromone, and other potential chemical signals, compare to compounds in insect pheromone blends [E/ECM, abstract].
- 4811 EaoB RASMUSSEN, L. E. L. (1999). Evolution of chemical signals in the Asian elephant, *Elephas maximus*: behavioral and ecological influences. *Journal of Bioscience*, 24:241-251.
- 4812 EapB RASMUSSEN, L. E. L. and HULTGREN, B. (1991). Gross and microscopic anatomy of the vomeronasal organ in the Asian elephant (*Elephas maximus*). In *Chemical Signals in Vertebrates 5* (ed. D. W. MacDonald, D. Müller-Schwarze, and S. E. Natynczuk), pp. 154-161. Oxford University Press, Oxford, xxi + 659 pp.
- 4813 EprB RASMUSSEN, L. E. L. and LEE, T. D. (1991). Purification and initial characterization of a pre-ovulatory urinary pheromone from female Asian elephants (*Elephas maximus*). *Chemical Senses*, 16:569. [Association for Chemoreception Sciences XIII, Abstract 176]. **Annotation:** Estrus, reproduction, olfaction, WPZ [MPK].
- 4814 EapB RASMUSSEN, L. E. L. and MUNGER, Bryce. (1990). Micro-anatomy of the trunk tip of *Elephas maximus*. *Chemical Senses*, 15:628 [Association for Chemoreception Sciences XII, Abstract 188].
- 4815 EabB RASMUSSEN, L. E. L. and MUNGER, Bryce L. (1996). The sensorineural specializations of the trunk tip (finger) of the Asian elephant, *Elephas maximus*. *The Anatomical Record*, 246(1):127-134. **Annotation:** Dorsal extension of Asian elephant trunk tip has remarkable mechanical dexterity, used in variety of behaviors including grasping food and tactile and chemosensory recognition via vomeronasal organ. Unique sensory innervation of this specialized region in trunk [E/ECM].
- 4816 EpaB RASMUSSEN, L. E. L. and MUNGER, Bryce L. (1996). Why the trunk tip of the Asian elephant is a unique structure. *Journal of Elephant Managers Association*, 7(3):42-47.
- 4817 LceW RASMUSSEN, L. E. L. and OSBORN, Ferrel V. (1995). Chemosensory behaviors and development of repellents: tests of capsicum-based irritant against wild elephants in Zimbabwe [Abstract]. Excellence in wildlife stewardship through science and education. *The Wildlife Society Second Annual conference September 12-17, 1995, Portland Oregon*, p. 108.
- 4818 BaoB RASMUSSEN, L. E. L. and PERRIN, T. E. (1999). Physiological correlates of musth: lipid metabolites and chemosignal composition. *Physiology & Behavior*, 67: (1-11).
- 4819 EorB RASMUSSEN, L. E. L. and SCHMIDT, Michael J. (1993). Filial-maternal chemorecognition in Asian elephant. American Society of Mammalogists Abstract. **Annotation:** Olfaction, biochemistry, captivity, parenting, behavior, social relations, reproduction, vomeronasal organ, urine, WPZ [MPK].
- 4820 BpoB RASMUSSEN, Bets [L. E. L.] and SCHULTE, Bruce. (1996). A medley of chemical signals. *Journal of the Elephant Managers Association*, 7(1):61-64. **Annotation:** Elephants are walking chemical signal factories. Many kinds of molecules in liquid and airborne states are given off via urine, temporal gland secretions and other body secretions [E/ECM].
- 4821 BrpB RASMUSSEN, L. E. L. and SCHULTE, Bruce A. (1998). Chemical signals in the reproduction of Asian (*Elephas maximus*) and African (*Loxodonta africana*) elephants. *Animal Reproduction Science*, 53:19-34.
- 4822 EvoB RASMUSSEN, L. E. L. and SCHULTE, Bruce A. (1999). Ecological and biochemical constraints on pheromonal signaling systems in Asian elephants and their evolutionary implications. *Advances in Chemical Communication in Vertebrates 8* (ed. R. Johnston, D. Muller-Schwarze and P. Sorenson), pp. 49-62. Plenum Press.
- 4823 EopB RASMUSSEN, L. E. L., DAVIES [sic], G. D., and LEE, T. D. (1992). An unusual compound and further characterization of a preovulatory pheromone of Asian elephants, *Elephas maximus*. *Chemical Senses*, 17:687. [Association for Chemoreception Sciences XIV, Abstract 231]. [Davies' correct name is Daves].
- 4824 ErpB RASMUSSEN, L. E. L., GUNAWARDENA, R. A., and RASMUSSEN, R. A. (1997). Do Asian elephants, especially males in musth, chemically signal via volatiles in breath? *Chemical Senses*, 22:775.
- 4825 LorW RASMUSSEN, L. E. L., HALL-MARTIN, Anthony, and HESS, David L. (1996). Chemical profiles of male African elephants, *Loxodonta africana*: physiological and ecological implications. *Journal of Mammalogy*, 77(2):422-439. **Annotation:** Musth, biochemistry, temporal gland secretion, endocrinology, KNP, AENP [MPK].
- 4826 EroC RASMUSSEN, L. E. L., HESS, D. L., and HAIGHT, J. D. (1990). Chemical analysis of temporal gland secretions collected from an Asian bull elephant during a four-month musth episode. *Journal of Chemical Ecology*, 16(7):2167-2181. **Annotation:** Characterization of chemical components of musth, especially in temporal gland secretions, and examination of role of such secretions as agents for chemical communication between elephants [E/ECM, abstract].

- 4827 BroB RASMUSSEN, L. E. L., HESS, D. L., and HALL-MARTIN, A. (1990). Chemical profiles of temporal gland secretions from captive Asian bull elephants during musth and from African bull elephants, living in wild but crowded conditions. Chemical senses, 15:628. Association for Chemoreception Sciences XII, Abstract 187. **Annotation:** Olfaction, biochemistry, musth, behavior, WPZ, KNP [MPK].
- 4828 EaoB RASMUSSEN, L. E. L., JOHNSON, E. W., and JAFEK, B. W. (1993). Preliminary observations on the morphology of the vomeronasal organ of a newborn Asian elephant. Chemical Senses, 18:618. [Association for Chemoreception Sciences XV, Abstract 225].
- 4829 EroB RASMUSSEN, L. E. L., PERRIN, T. E., and GUNAWARDENA, R. (1994). Isolation of potential musth-alerting signals from temporal gland secretions of male Asian elephants (*Elephas maximus*), a new method. Chemical Senses, 19:540. [Association for Chemoreception Sciences —, Abstract 244].
- 4830 EroB RASMUSSEN, L. E. L., PERRIN, T. E., and SCHULTE, B. A. (1994). Musth chemosignals among Asian elephants. International Society of Chemical Ecology, 11:48.
- 4831 ErpC RASMUSSEN, L. E. L., LEE, Terry D., DAVES, G. Doyle, Jr., and SCHMIDT, Michael J. (1993). Female-to-male sex pheromones of low volatility in the Asian elephant, *Elephas maximus*. Journal of Chemical Ecology, 19(10):2115-2128. **Annotation:** For several weeks prior to ovulation, urine and cervical mucus of female Asian elephants contain extractable chemical agents of low volatility that elicit a high frequency of flehmen responses from bull elephants as an integral part of mating. During the course of a project to determine the agent(s) and describe responses associated with female to male sexual communication, authors have identified an unusual compound, indolo-[2,1-b]quinazoline-6,12-dione (tryptanthrine) [E/ECM, abstract].
- 4832 EroB RASMUSSEN, L. E. L., PERRIN, T. E., SCHULTE, B. A., and GUNAWARDENA, R. (1993). Musth chemosignals among Asian elephants. Newsletter International Society of Chemical Ecology, 10(3):pages not provided [abstract]. **Annotation:** Reproduction, olfaction, behavior, captivity, WPZ [MPK].
- 4833 EorB RASMUSSEN, L. E. L., LEE, Terry D., ROELOFS, Wendell L., ZHANG, Aijun, and DAVES, G. Doyle. (1996). Insect pheromone in elephants. Nature, 379(6567):684. **Annotation:** *Elephas maximus*, Lepidoptera, olfaction, biochemistry, reproduction. Female Asian elephants release a pheromone in urine during estrus and before ovulation to signal males readiness to mate [MPK].
- 4834 EroB RASMUSSEN, L. E. L., LEE, T. D., ZHANG, A., ROELOFS, W. L., and DAVES, Jr., G. D. (1997). Purification, identification, concentration & bioactivity of (Z)-7-dodecen-1-yl acetate: sex pheromone of the female Asian elephant, *Elephas maximus*. Chemical Senses, 22:417-437. **Annotation:** For several weeks prior to ovulation, female elephants release a substance in their urine which elicits a high frequency of non-habituating chemosensory responses, especially flehmen responses, from male elephants. Using bioassay-guide fractionation, quantitatively dependent on these chemosensory responses, a specific sex pheromone was isolated and purified by an alternating series of organic and/or aqueous extractions, column chromatography, gas chromatography and high-performance liquid chromatography [E/ECM].
- 4835 \*vwU RATANASTHIEN, B. (1990). Mae Long Formation of Li Basin, Thailand. In Pacific Neogene events: their timing, nature and interrelationship (ed. R. Tsuchi), pp. 123-128. University of Tokyo.
- 4836 EroC RATNASOORIYA, W. D. (1998). Serum testosterone profiles of captive Sri Lankan elephants (*Elephas maximus maximus*). Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), p. 22. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 4837 EarC RATNASOORIYA, W. D. and FERNANDO, S. B. U. (1992). Pattern of toe-nail distribution of Sri Lanka elephant, *Elephas maximus maximus*. Medical Science and Research, 20:221-222.
- 4838 EraC RATNASOORIYA, W. D., FERNANDO, S. B. U., MANATUNGA, B. M. V. R. (1991). Pregnancy duration of Sri Lanka elephant (*Elephas maximus maximus*) in captivity. Medical Science and Research, 19:623-624.
- 4839 EadC RATNASOORIYA, W. D., FERNANDO, S. B. U., MANATUNGA, B. M. V. R. (1991). Presence of an arcus senilis like structure in the eyes of the Sri Lanka elephant (*Elephas maximus maximus*). Medical Science and Research, 19:715-716.
- 4840 EarC RATNASOORIYA, W. D., FERNANDO, S. B. U., and MANATUNGA, B. M. V. R. (1992). Serum testosterone levels of Sri Lanka female elephants (*Elephas maximus maximus*). Medical Science and Research, 20:79-80.
- 4841 EarC RATNASOORIYA, W. D., FERNANDO, S. B. U., and MANATUNGA, B. M. V. R. (1993). Serum prolactin levels of Sri Lanka elephants (*Elephas maximus maximus*). Medical Science and Research, 21:259-261.
- 4842 EpqC RATNASOORIYA, W. D., PREMAKUMARA, G. A. S., and FERNANDO, S. B. U. (1992). Rectal temperature of Sri Lanka elephant (*Elephas maximus maximus*). Medical Science and Research, 20:498-500.
- 4843 EarC RATNASOORIYA, W. D., CALDERA, H. S., PREMAKUMARA, G. A. S., MANATUNGA, B. M. V. R., and FERNANDO, S. B. U. (1993). Some haemological values during normal pregnancy in the Sri Lanka elephants (*Elephas maximus maximus*). Medical Science and Research, 21:153-156.
- 4844 EarC RATNASOORIYA, W. D., LIYANAGE, G. K., PREMAKUMARA, G. A. S., MANATUNGA, B. M. V. R., and FERNANDO, S. B. U. (1992). Thrombocytosis: a possible signal of conception in elephants? Medical Science and Research, 20:801-802.
- 4845 EapC RATNASOORIYA, W. D., MOLLIGODA, P. S., MOLLIGODA, W. H. M., FERNANDO, S. B. U., and PREMAKUMARA, G. A. S. (1994). Absence of synchronisation either in defecation or urination of the Sri Lanka elephant (*Elephas maximus maximus*). Ceylon Journal of Science, 23(1):47-51.
- 4846 EaoC RATNASOORIYA, W. D., FERNANDO, S. B. U., MANATUNGA, B. M. V. R., CALDERA, H. S., LIYANAGE, G. K., and PREMAKUMARA, G. A. S. (1990). Haemological values for adult Asian elephants (*Elephas maximus maximus*) at Pinnawala Elephant Orphanage, Sri Lanka. Medical Science and Research, 18:899-902.
- 4847 LaoB RAUBENHEIMER, Erich J., DAUTH, J., DREYER, M. J., and DE VOS, V. (1988). Parotid salivary gland of the African elephant, *Loxodonta africana*: structure and composition of saliva. Journal of the South African Veterinary Association, 59(4):184-187.
- 4848 LiaW RAUBENHEIMER, Erich J., DAUTH, Joseph, DREYER, Manie J., SMITH, Patrick D., and TURNER, Martin L. (1990). Structure and composition of ivory of the African elephant (*Loxodonta africana*). South African Journal of Science, 86(4):192-193. **Annotation:** Varied size, strength and quantity of elephant ivory from different parts of Africa related to environment. Factors and composition of ivory itself

- used to ascertain cause of poor tusk development in particular areas [ID-H/M&DR].
- 4849 LidB RAUBENHEIMER, Erich J., VAN HEERDEN, W. F. P., TURNER, Martin L., and MARE, L. K. (1989). Odontoma in an African elephant (*Loxodonta africana*). Journal of the South African Veterinary Association, 60(3):149-150.
- 4850 LiaB RAUBENHEIMER, Erich J., VAN HEERDEN, W. F. P., VAN NIEKERK, P. J., DE VOS, Valerius, and TURNER, M. J. (1995). Morphology of the deciduous tusk (tush) of the African elephant (*Loxodonta africana*). Archives of Oral Biology, 40(6):571-576.
- 4851 LiaB RAUBENHEIMER, Erich J., BROWN, J. M. M., RAMA, D. B. K., DREYER, Manie J., SMITH, Patrick D., and DAUTH, Joseph (1998). Geographic variations in the composition of ivory of the African elephant (*Loxodonta africana*). Archives of Oral Biology, 43(8):641-647.
- 4852 LwbW RAUTENBACH, Chris and PONTIER, Harmina. (1993). Elephant distributions in the Hoanib River: some observations on the possible effect of the drought. LINKHILLS [Newsletter], p. 4. **Annotation:** Drought in South Africa in 1992 caused differences in feeding, water utilization and distribution of 30+ elephant population compared to 1989-1991. Group sizes were smaller, animals remained in close proximity to surface water and drank water also used by livestock. In previous years they ranged as far as 40 miles for water sources, drank every third or fourth day, normally from holes they dug in river bed for subterranean water [ID-H/M&DR].
- 4853 \*vaU RAY, Clayton E., DOMNING, Daryl P., and MCKENNA, Malcolm C. (1994). A new specimen of *Behemotops proteus* (order Desmostylia) from the marine Oligocene of Washington. In Contributions in marine mammal paleontology honoring Frank C. Whitmore, Jr. (ed. A. Berta and T. A. Deméré). Proceedings of the San Diego Society of Natural History, 29:205-222.
- 4854 LjwW RAYMOR, Dee. (1995). Declining riverine woodlands of *Acacia xanthophloea* at Lewa Downs, near Isiolo. East Africa Natural History Society Bulletin, 25(4):56-59. **Annotation:** Observation of mature *A. xanthophloea* woodland in Lewa Downs suggests combination of high water tables, wood boring insects, specifically longhorn beetle, and elephants play a role in cycle of development and demise of tree stands [ID-H/M&DR].
- 4855 UzgU RAYNER, R. (1992). The elephant: a novel. Turtle Bay Books, New York, 289 pp.
- 4856 BqzC REBER, Peggy and SMITH, Anthony, J. (1992). Development of an elephant emergency action plan. The 13th International Elephant Workshop, Atlanta, 1992, pp. 35-38. Zoo Atlanta, Georgia, 151 pp.
- 4857 LbuW REDMOND, Ian [M]. (1988). Underground elephants under attack. Swara, 11(2):13-16. **Annotation:** Also published (expanded) in *Animal Kingdom*, May/June 1989 (pp. 16-23) as 'Elephants under attack' and in "World Magazine", (1989) 29:48-56, as "Elephanticide". Elephants on Mount Elgon that 'mine' salts in Kitum Cave, not immune to poaching. Struggle against poachers in MENP, suggests anti poaching action must be coupled with reducing demand for ivory [ID-H/M&DR].
- 4858 LiuW REDMOND, Ian [M]. (1988). U.S. wades into ivory laundry. BBC Wildlife, 6(12):690. **Annotation:** Elephant Protection Act of 1988 is the "first step towards substantial curtailment and effective control of world trade in ivory" (U.S. Congressman Anthony Beilenson) [E/SLS].
- 4859 LjuW REDMOND, Ian [M]. (1989). Elephanticide. World Magazine (London), 29:48-56. **Annotation:** Title is apt. Describes behavior and ecology of the unique elephants in MENP. Suggests the anti-poaching action must be coupled with reducing the demand for ivory which is fueling the illegal slaughter [MPK].
- 4860 LiuW REDMOND, Ian [M]. (1989). Elephants under attack. Animal Kingdom, 92(3):16-23. **Annotation:** Also published in "Swara" (1988) 11(2):13-16 as 'Underground elephants under attack'. The elephants on Mount Elgon who 'mine' the salts in the Kitum Cave are not immune to elephant poaching elsewhere in Africa. Describes poachers techniques in MENP and suggests anti-poaching action must be coupled with reducing the demand for ivory which is fueling the illegal slaughter [ID-H/M&DR].
- 4861 Lcuw REDMOND, Ian [M]. (1989). FFPS news: Ele-Fund update. Oryx, 23(1):59.
- 4862 LcuW REDMOND, Ian [M]. (1989). Hot ivory and cold realities. BBC Wildlife, 7(9):564-572. **Annotation:** Links elephant decline in Africa to illegal ivory trade. Estimated elephant population declined from 1.3 million to 623,000 or more pessimistic figure of 353,000. Only two percent of elephant's range has effective protection; only elephants in those areas likely to survive if poaching continues. If profits rise, these areas, and men guarding them, would be in jeopardy. Lists countries involved as producers, smugglers, and consumers. Producers are 36 African nations with elephant populations. They can be divided into east and southern African where animals are visible (i.e., live in open bush and can be counted from air) and Central and West African where they are mostly invisible (live beneath canopy of tropical rain forest, where counting is difficult) [ID-H/M&DR].
- 4863 LicW REDMOND, Ian [M]. (1989). Human nature: the ivory divide. BBC Wildlife, 7(5):332.
- 4864 LicW REDMOND, Ian [M]. (1989). It's YOUR turn: harsh truths. BBC Wildlife, 7(7):481. **Annotation:** Reply to letter from Dr. Peter Kramer protesting Redmond's article 'The ivory divide' in Vol. 7(5):332 [MPK].
- 4865 LrbW REDMOND, Ian [M]. (1989). Nature: advertising campaign saves energy. BBC Wildlife, 7(3):139. **Annotation:** Periods of musth in bulls of ANP, vary according to age (synopsis of report by Joyce Poole in "Animal Behavior", 36:140-152) [JS].
- 4866 BgcB REDMOND, Ian [M]. (1990). The elephant book. Walker Books Ltd., London, 48 pp. Also published: 1991. Overlook Press. **Annotation:** For young and adult readers. Component of Elefriends Campaign focused on conservation of elephants by development of public awareness of population loss from international ivory trade. Focuses on uniqueness, social behavior, ecology and life history of elephants [ID-H/M&DR].
- 4867 LjcW REDMOND, Ian [M]. (1991). With elephants underground. In Elephants: the deciding decade (ed. R. Orenstein), pp. 115-129. Key Porter Books, Toronto/Sierra Club Books, San Francisco. 160 pp.; published as Elephants - saving the gentle giants, by Bloomsbury Press, UK. Revised, updated reprint in 1997. **Annotation:** Popular account of only study (to date) of elephants in the dark zone of caves on MENP [IMR].
- 4868 LkiW REDMOND, Ian M. (1992). Alternatives to culling. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), p. 200. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** *Loxodonta africana*, conservation, ivory, translocation; cf. Reference no. 3667 [MPK].
- 4869 LjpW REDMOND, Ian M. (1992). Erosion by elephants. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 128-130. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also Simon & Schuster, London. **Annotation:** Cave system in MENP where genera-



- tions of elephants have excavated large caves in search of salts within layers of volcanic ash [ID-H/M&DR].
- 4870 LcwW REDMOND, Ian [M]. (1992). Ivory wars II: the players and the moves. *BBC Wildlife*, 10(2):26-27. **Annotation:** Range states and major import nations preparing to attend 1992 CITES meeting in Japan to consider retaining African elephants on Appendix I which bans commercial trade on any body part of the species [ID-H/M&DR].
- 4871 BqjC REDMOND, Ian [M]. (1994). Status and environmental enrichment for captive elephants. In *Proceedings of the Seventh U.K. Elephant Workshop, hosted by Cricket St Thomas Wildlife Park, Somerset, 20th October 1993* (ed. N. G. Spooner and J. A. Whitear), pp. 71-100. Published by North of England Zoological Society. **Annotation:** "...to improve the quality of life of captive elephants we must emulate the wild" [JS/ECM, p. 71].
- 4872 BjcB REDMOND, Ian [M]. (1996). Elephant family values. In *The exploitation of mammal populations* (ed. Victoria J. Taylor and Nigel Dunstone), pp. 358-375. Chapman & Hall, London, 415 pp. **Annotation:** Values of family of elephants in terms of ethics, economics and ecology. Concludes that elephants are undervalued in terms of their role in their (and our) ecosystem, and that elephant-based tourism is underdeveloped [IMR]. Elephants are mentioned in other chapters in regard to hunting, conservation, management and sustainability (cf. Reference no. 3057).
- 4873 LjpW REDMOND, Ian M. and SHOSHANI, Jeheskel. (1987). Mount Elgon's elephants are in peril. *Elephant*, 2(3):46-66. **Annotation:** Seven year study on Mount Elgon elephants, which in early 1970s estimated to be about 1,200, but may now, due to poaching, be lower than 100. This somewhat isolated population's unique 'salt mining' activity has resulted in development of caves within the mountain. Elephants normally entered caves during early evening and remained up to six hours excavating and eating salty rock materials. Frequency of visits appear to increase as rainfall decreases [ID-H/M&DR].
- 4874 \*vwU REESE, David S. (ed.). (1996). *The Pleistocene and Holocene fauna of Crete and its first settlers*. Prehistory Press, Madison (Wisconsin), 422 pp.
- 4875 LrqC REED, S. and NOLAN, C. (1996). Mission improbable. *People*, 45(10):112-115. **Annotation:** Daphne Sheldrick and rearing of baby elephants, *Loxodonta africana*, parenting, captivity, attacking-humans, milk, weaning, development, injury, social relations, behavior in TNP [MPK].
- 4876 \*vwU REESE, David S. (1995). *The Pleistocene vertebrate sites and fauna of Cyprus*. Ministry of Agriculture, Natural Resources and Environment, Nicosia, Cyprus, Geological Survey Department, Bulletin No. 9: pages not provided.
- 4877 \*avU REESE, David S. (1996). The extinct pygmy mammals of Cyprus. *Sunjet, Cyprus Airways in-flight magazine*, 9(2):18-22. **Annotation:** For 450 years, bones of extinct fossil mammals of Cyprus have been interpreted as being remains of saints, early Christian martyrs, antediluvian beasts and dragons. In the early 1900s these bones correctly identified as pygmy mammals - a pig-sized hippopotamus and a pony-sized elephant" [E/ECM, p. 19].
- 4878 \*ihU REESE, David S. and KRZYSZKOWSKA, Olga H. (1996). Elephant ivory at Minoan Kommos. In *Kommos I/2: the Kommos region and houses of the Minoan town* (ed. J. W. Shaw and M. C. Shaw), pp. 324-326 + 2 pages of references. Princeton University Press, Princeton, total pages not provided. **Annotation:** There are two cubes of elephant ivory from late Minoan III contexts in Central Hillside. The cubes are described as 'partly worked ivory'. Minoan Kommos has not yielded any finished objects of ivory, but these pieces provide valuable evidence for ivory working [E/ECM, p. 324].
- 4879 EgrC REID, Gordon M. (1996). Chez nous: thinking big. *Chester Zoo Life*, Winter:2. **Annotation:** Editorial on "Karha", Asian elephant, born December 19, 1995, and 9th U.K. Elephant Workshop in September 1996; see Reference no. 5240 [SLS].
- 4880 EgrC REID, Gordon M. (1996). Chez nous. *Chester Zoo Life*, Spring:1-2, 8-9. **Annotation:** Editorial on "Karha", Asian elephant, born December 19, 1995. Photographs on pp. 8-9. See Reference no. 5240 [ECM].
- 4881 \*haU REININK, Arthur. (1996). Mammothutten. *Cranium*, 13(2):95-110. [summary and captions in English]. **Annotation:** Mammoth bone structures (dwellings) in eastern Europe and Russia [ECM].
- 4882 LizW RESNICK, M. (1988). *Ivory: a legend of past and future*. Tom Doherty Assoc., New York, 374 pp. **Annotation:** Science-fiction account of "Kilimanjaro elephant" — longest tusks ever taken — shot on slopes of Kilimanjaro in 1898 [MPK].
- 4883 LmcW REULING, M. A. (1991). Elephant use of the Marang Forest Reserve in northern Tanzania. MS thesis, University of Washington, vii, 82 pp. **Annotation:** Goals: to evaluate importance of Marang Forest Reserve for elephants of LMNP, to evaluate use of dung to measure population, to collect conservation information about the reserve. Found that the reserve was an important secondary habitat for migrating elephants from Lake Eyasi and Ngorongoro, but not during the study period at least from LMNP. Population estimate using dung method of Barnes and Jensen (Reference no. 2818) gave poor estimates because model assumptions were not fulfilled. Proposals that reserve status kept and areas developed for tourism with walking safaris ID-H/M&DR].
- 4884 +gvB REUMER, Jelle W. F. and DE VOS, John (eds). (1999). Elephants have a snorkel! Papers in honour of Paul Y. Sondaar. *Deinsea* 7 (annual of the Natural History Museum, Rotterdam):1-422. **Annotation:** This special issue of *Deinsea* is an indispensable volume with contributions by eminent scientists on various topics with emphasis on Quaternary mammals and on island evolution. The cover is adorned with a color illustration of an elephant crossing a sea-strait, by Hans Brinkrink. " 'Elephants have a snorkel!' is an exclamation often uttered by Paul Y. Sondaar when lecturing on mammalian migrations to islands. Elephants are indeed a common element of the endemic vertebrate fauna on oceanic islands, and they are often reported to cross sea -straits using their trunk as a snorkel. The exclamation illustrates Paul's interest in island evolution as well as his curious and phantasy-rich mind" (from inside front flap of dust cover) [JS/ECM].
- 4885 BapB REUTER, Tom, NUMMELA, Sirpa, and HEMILÄ, Simo. (1998). Elephant hearing. *Journal of the Acoustical Society of America*, 104(2):1122-1123. **Annotation:** "Elephants' vocalizations and movements have recently been shown to produce seismic waves (Rayleigh waves). This may be relevant for the well-known long-distance communication of these animals. It is suggested here that elephants may sense ground vibrations as a result of bone conduction producing a differential vibration of the middle ear ossicles in relation to the skull. This hypothesis is supported by the exceptionally massive ossicles of the Indian and African elephants. The acoustics of bone conduction is reviewed and related to the anatomy of the elephant middle ear"; cf. Reference nos. 4595, 4596 [E/ECM].

- 4886 LicW RICCIUTI, E. R. (1993). The elephant wars. Wildlife Conservation, 96(2):14-34. **Annotation:** Status of elephants in Africa in wake of worldwide ban on ivory trading. Situation still in flux: many problems to solve, many viewpoints to accommodate. Biggest conflict is balancing conservation needs with needs of poverty-stricken, growing human population. Related questions: culling vs. fencing, pros and cons of ivory ban. Sustainable use and community participation difficult to implement when benefits only trickle down to participants and national politics are unstable [ID-H/M&DR].
- 4887 EcwW RICE, C. (1990). Don't forget to pack the trunk. Wildlife Conservation: Incorporating Animal Kingdom, 93(4):58-67. **Annotation:** Translocating Asian elephants in Malaysia [MPK].
- 4888 EdaC RICHMAN, Laura K. and MONTALI, Richard J. (1995). A newly recognized, acute fatal herpes-like virus in Asian elephants (*Elephas maximus*). Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 2 unnumbered pages.
- 4889 EdaC RICHMAN, Laura K., MONTALI, Richard J., and LEHNHARDT, John. (1997). A newly recognized fatal herpesvirus infection in elephants. Journal of the Elephant Managers Association, 8(1):57-59. **Annotation:** Newly recognized, fatal herpesvirus of Asian and African elephants has killed a significant proportion of Asian elephants born in North America [ECM].
- 4890 EdoC RICHMAN, Laura K., MONTALI, Richard J., CAMBRE, R. C., LEHNHARDT, J. M., KENNEDY, S. Kania, POTGEITER, L. (1996). Endothelial inclusion body disease: a newly recognized fatal herpes-like infection in Asian elephants. In 1996 Proceedings American Association of Zoo Veterinarians, 483-485.
- 4891 BdoC RICHMAN, Laura K., MONTALI, Richard J., GARBER, Richard L., KENNEDY, Melissa A., LEHNHARDT, John, HILDEBRANDT, Thomas, SCHMITT, Dennis, HARDY, Douglas, ALCENDOR, Donald J., and HAYWARD, Gary S. (1999). Novel endotheliotropic herpesviruses fatal for Asian and African elephants. Science, 283(5405):1171-1176. **Annotation:** Highly fatal hemorrhagic disease has been identified in 10 young Asian and African elephants in North American Zoos. Ultrastructural evidence for herpesvirus-like particles in endothelial cells of heart, liver, and tongue. Consensus primer polymerase chain reaction combined with sequencing yielded molecular evidence that confirmed presence of two novel but related herpesviruses associated with the disease, one in Asian elephants and another in African elephants; cf. Reference no. 3448 [E/ECM, abstract].
- 4892 BnoC RICKETTS, Michael. (1994). The long-term use of tocopheryl polyethylene glycol succinate in elephants. In Proceedings of the Seventh U.K. Elephant Workshop, hosted by Cricket St Thomas Wildlife Park, Somerset, 20th October 1993 (ed. N. G. Spooner and J. A. Whitear), pp. 9-37. Published by North of England Zoological Society.
- 4893 BqtC RICKETTS, Tod A. (1992). Elephant restraint: the next generation. The 13th International Elephant Workshop, Atlanta, 1992, pp. 124-128. Zoo Atlanta, Georgia, 151 pp.
- 4894 BqrC RIDDLE, Heidi S. (1995). Protected elephants — a secure and natural environment for breeding, education, and scientific study. Sixteenth Elephant Management Workshop, held at Point Defiance Zoo and Aquarium, Tacoma, Washington, USA (October, 1995), 5 unnumbered pages.
- 4895 BqrC RIDDLE, HEIDI S. and GOODWIN, Thomas E. (1995). Protected elephants — a secure and natural environment for breeding, education, and scientific study. Abstracts, The Wildlife Society, Second Annual Conference, Portland, Oregon, USA, September 12-17, 1995, p. 110.
- 4896 BicB RIDLEY, Mark. (1991). Review of "Elephants, economics and ivory" by E. B., Barbier, J. C. Burgess, T. M. Swanson and D. W. Pearce, published 1990 by Earthscan Publications Ltd, London, 154 pp. TLS-The Times Literary Supplement, (4615):6.
- 4897 EqnC RIEKERK, F. E., HIDDINGH, H., and VAN DIJK, S. (1993). Hand-rearing an Asian elephant at the Noorder Zoo, Emmem. International Zoo Yearbook, 32:244-252.
- 4898 LgjU RIGBY, Mary Dwyer, RIGBY, Douglas, and DOUGLAS-HAMILTON, Iain. (1999). African elephant references. A draft, hard bound copy produced by the Rigbys, Halifax, Nova Scotia, Canada, 210 pp., + Appendix I, 16 pp.; Appendix 2, 5 pp.; Appendix 3, 3 pp. **Annotation:** Bibliography focused on distribution, ecological relationships, biology, management of African elephant populations, past, present, future. Complete references with annotations are on this website: <<http://www.chebucto.ns.ca/~drigby/eli3.htm>> [E/ECM, front page].
- 4899 EdaC RIHA, V. F., PETERSON, L. J., ROSSMOORE, H. W., and SHOSHANI, J. (1991). Detection and inhibition of fungi from the excised trunk of an Asian elephant. International Biodeterioration, 28:113-124. **Annotation:** Also describes preservation methods employed on the trunk of "Iki", now on exhibit at Wayne State University Science and Engineering Library; see also "Iki" in ENN under Individual elephants [JLP].
- 4900 BqtC RINGER, R. (1991). Elephant command survey. Proceedings of the International Elephant Workshop, 12:152 [Syracuse, NY, 16-19 October 1991].
- 4901 \*vhU RINK, W. Jack, SCHWARCZ, Henry P., STUART, Anthony J., LISTER, Adrian M., MARSEGLIA, Elizabeth, and BRENNAN, B. J. (1996). ESR dating of the type Cromerian West Runton Freshwater Bed. Quaternary Science Reviews (Quaternary Geochronology), 15:727-738.
- 4902 BqbC RITVO, H. (1987). The animal estate: the English and other creatures in the Victorian Age. Harvard University Press, Cambridge, 347 pp. **Annotation:** Elephants, "Jumbo", captivity. See quotes in H. Williams, 1989, Reference no. 5718 [MPK].
- 4903 BqgC ROBERSON, Linda. (1997). Riddle's comprehensive elephant handlers' course: the fourth annual session. Journal of the Elephant Managers Association, 8(2):65-67. **Annotation:** Provides hands on training and general background [JS].
- 4904 EqrC ROBERSON, Linda L. (1997). Ringling Brothers and Barnum and Bailey Center for Elephant Conservation. Journal of the Elephant Managers Association, 8(1):73-75. **Annotation:** Located on a 200-acre site in central Florida, dedicated to conservation, breeding and study of endangered Asian elephants [ECM].
- 4905 LckW ROBERTS, Adam. (1998). Botswana's baby elephants saved from international trade. AWI [Animal Welfare Institute] Quarterly, 47(3):15. **Annotation:** South African judge has ruled in favor of National Council of Societies for the Prevention of Cruelty to Animals in a case involving 30 baby elephants, some as young as two, separated from their herds in TGR and exported to South Africa. Dealer Riccardo Ghiazza was reportedly planning to sell them to parks and zoos in countries including Germany, China, Switzerland, and possibly United States. NSPCA will be able to seize the elephants and initiate a long-term plan to rehabilitate them and reunite them with their families. See Reference nos. 3868, 3872, 3873, 3874, 4497, 5420 [E/ECM].

- 4906 LmwW ROBERTSON, E. F. (1992). Canopy cover loss in the Matusadona highlands. In Elephant management in Zimbabwe (2nd edition) (ed. R. B. Martin and A. M. G. Conybeare), p. 51. Dept of National Parks and Wild Life Management, Harare, Zimbabwe. **Annotation:** Dry season aerial photographs from 1959, 1973, 1975 and 1981 were assessed to relate canopy cover loss with resident and migratory elephant populations in the highlands [ID-H/M&DR].
- 4907 LckW ROBSON, E. (reprinted 1994). Electric fences for elephant management. In The African elephant as a game ranch animal, pp. 64-69. SAVA [South African Veterinary Association] Wildlife Group, Onderstepoort, South Africa, 192 pp. **Annotation:** *Loxodonta africana*, translocation, captivity, learning, in KNP [MPK].
- 4908 LhwW RODERIGUES, Jan. (1996). Magnificent seven belong to the past, but the legend lives on. Custos, 1:19-24.
- 4909 LmqC ROEHRS, J. M., BROCKWAY, C. R., ROSS, D. V., REICHARD, T. A., and ULLREY, D. E. (1989). Digestibility of timothy hay by African elephants. Zoo Biology, 8(4):331-337. **Annotation:** Two juvenile, female African elephants used in summer and winter trials to determine digestibility of timothy hay. After two week period of dietary adjustment, dry matter intake and fecal excretion were measured for seven days. Estimates of apparent digestibility during summer and winter, respectively, were 39 and 35% for dry matter, 43 and 32% for gross energy, 45 and 30% for crude protein, and 36 and 24% for acid detergent fiber. Dry matter intake was 1.4-1.6% of body weight, providing average of 144 kcal of digestible energy per kg of body weight times 0.75, similar to value used in estimating digestible energy requirements for maintenance of light-breed horses [ID-H/M&DR].
- 4910 \*vwU ROGER, Jack, PICKFORD, Martin, THOMAS, Herbert, LAPPARENT DE BROIN, France, TASSY, Pascal, VAN NEER, Wim, BOURDILLON-DE-GRISSAC, Chantal, and AL-BUSAIDI, Salim. (1994). Découverte de vertébrés fossiles dans le Miocène de la Région du Huqf au Sultanat d'Oman. Annales de Paleontologie (Vert. Invert.), 80(4):253-273. **Annotation:** Proboscideans on pp. 265-7; teeth on p. 273 [ECM].
- 4911 LjwC ROGERS, C. M. L. (1993). A woody vegetation survey of Hwange National Park. Dept. of National Parks & Wild Life Management, Harare, Zimbabwe, 176 pp. **Annotation:** *Loxodonta africana*, ecology, habitat-alteration, food, distribution [MPK].
- 4912 LwcW ROGERS, D. (1994). Etosha National Park. Struik, Cape Town, 48 pp.
- 4913 \*avU ROGERS, R. A. and MARTIN, L. D. (1989). Possible proboscidean bone artifact from the Kansas River. Current Research in the Pleistocene, 6:43-44. **Annotation:** Prehistoric proboscideans, art, Kansas [MPK].
- 4914 BqtC ROOCROFT, Alan and ZOLL, Donald Atwell. (1994) "Managing elephants: an introduction to their training and management. Fever Tree Press, Ramona (California), 198 pp.
- 4915 LiyW ROSS, Doran H. (ed.). (1992). Elephant: the animal and its ivory in African culture. Fowler Museum of Cultural History, University of California, Los Angeles, xxiv + 424 + ix pp. **Annotation:** Ivory products and themes by African artists inspired by African elephants. Live elephant environment, chief predator, man. Focuses on art from West and Central Africa, including Senegal, Cote d'Ivoire, Benin, Nigeria, Cameroon [ID-H/M&DR].
- 4916 EqzC ROSS, Gary. (1992). At large: the fugitive odyssey of Murray Hill and his elephants. Random House, New York, 318 pp. **Annotation:** In 1984, animal trainer, Murray Hill, disappeared with two female Asian elephants. He had raised Tory and Dutchess from birth, sold them to circus hands Dick and Eddie Drake, and repossessed them when the Drakes fell behind in their payments. Believing the animals had been abused, Murray vowed never to return them. The Drakes took Murray to court, won — and Murray left with the elephants on a fugitive odyssey for more than five years [E/ECM, jacket].
- 4917 BqgC ROST, Alan F. (1988). A new approach to elephant loan agreements. In Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988, pp. 31-53. Jacksonville Zoological Park, Florida, 145 pp.
- 4918 LwvW ROTH, H. H. and DOUGLAS-HAMILTON, I. (1991). Distribution and status of elephants in West Africa. Mammalia, 55(4):489-527. **Annotation:** West African elephant taxonomy reviewed and their distribution during 1976-1984 study done in a biogeographical context. At that time they inhabited roughly 232,000 sq. km, 6-7% of the area they had occupied at the turn of the century. Diminution of elephant range greatest in Sahel and Guinean savannah zone of which only about 2.8% and 2.3% respectively are still inhabited by elephants compared to 6.7% in Sudanian and 16% in Guinean forest zone. Surviving elephants in West Africa estimated at roughly 17,000, of which about 5,200 considered to be forest elephants. Of these, only about 11,500 (3,500 forest and 8,000 savannah elephants) live in or around national parks and game reserves [ID-H/M&DR].
- 4919 +apB ROTH, V. Louise. (1989). Fabricational noise in elephant dentitions. Paleobiology, 15(2):165-179.
- 4920 BvaB ROTH, V. Louise. (1989). Species diversity and variability in the Elephantidae: are elephants overly split? Abstracts of Papers and Posters Fifth International Theriological Congress, Rome, 22-29 August 1989, Volume I:156.
- 4921 \*veU ROTH, V. Louise. (1990). Insular dwarf elephants: a case study in body mass estimation and ecological inference. In Body size in mammalian paleobiology: estimation and biological implications (ed. J. Damuth and B. J. MacFadden), pp. 151-179. Cambridge University Press.
- 4922 \*vwU ROTH, V. Louise. (1992). Inferences from allometry and fossils: dwarfing of elephants on islands. In Oxford surveys in evolutionary biology, Vol. 8 (ed. D. Futuyma and J. Antonovics), pp. 259-288. Oxford University Press, New York.
- 4923 +avB ROTH, V. Louise. (1992). Quantitative variation in elephant dentitions: implications for the delimitation of fossil species. Paleobiology, 18(2):184-202. **Annotation:** Male elephants have slightly larger cheek teeth. Of the full complement of 6 cheek teeth per jaw quadrant, no single tooth varies less than others. Single population samples vary less than geographically heterogeneous samples of elephant teeth; although differential wear and eruption are important sources of variation complete elephants are more variable in length and width than cheek teeth of other mammals. Variability in dental dimensions of recognized fossil species is not grossly inconsistent with variability noted in modern elephants [ID-H/M&DR].
- 4924 \*avU ROTH, V. Louise. (1993). Dwarfism and variability in the Santa Rosa Island mammoth: an interspecific comparison of limb bone sizes and shapes in elephants. In Third California Islands symposium: recent advances in research on the California Islands (ed. F. G. Hochberg), pp. 433-442. Santa Barbara Museum of Natural History.
- 4925 \*evU ROTH, V. Louise. (1996). Pleistocene dwarf elephants of the California Islands. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 249-253. Oxford University Press, 472 pp. **Annotation:** Mammoths, evo-

- lution, systematics, in Santa Rosa Islands (California) [MPK].
- 4926 EalB ROTH, V. Louise and SHOSHANI, Jeheskel. (1988). Dental identification and age determination in *Elephas maximus*. Journal of Zoology (London), 214(4):567-588.
- 4927 \*daU ROTHSCHILD, Bruce M., XIAOMING, Wang, and SHOSHANI, Jeheskel. (1991). Proboscidean hijinks in the Pleistocene: are the changes indicative of venereally-acquired spondyloarthropathy? Journal of Vertebrate Paleontology, Abstracts of Papers, Volume 11, Supplement to Number 3:53A.
- 4928 +dvB ROTHSCHILD, Bruce M., XIAOMING, Wang, and SHOSHANI, Jeheskel. (1994). Spondyloarthropathy in proboscideans. Journal of Zoo and Wildlife Medicine, 25(3):360-366. **Annotation:** Spondyloarthropathy unequivocally diagnosed in mammoths and elephants on basis of fusion of vertebral bodies with marginal syndesmophytes, zygapophyseal joint fusion, and peripheral erosive arthritis and fusion and was easily distinguished from infection spondylitis and diffuse idiopathic skeletal hyperostosis... Infectious diarrhea or sexually transmitted arthritis are most likely candidates for this phenomenon [E/ECM].
- 4929 LiuW ROTICH, Nehemiah [K.] a. (1990). COMMENT: banning the ivory trade is just the beginning. Swara, 13(1):6-7. **Annotation:** Poaching of elephants will continue unabated as long as a high market value is placed on ivory [E/JMH].
- 4930 LicW ROTICH, Nehemiah [K.] a. (1992). Total ban on ivory trade still the only way to save the elephant. Swara, 15(1):6-7. **Annotation:** Situation suggests that in view of lack of law enforcement capacity and knowledge of how many elephants range states have, lifting of ivory ban would not be reasonable [ID-H/M&DR].
- 4931 LicW ROTICH, Nehemiah K. [a.]. (1994). The elephant is not yet safe! Swara, 17(5):5. **Annotation:** Need for ivory ban is felt in view of lack of law enforcement capability and unclear knowledge of status of elephant populations [ID-H/M&DR].
- 4932 LciW ROTICH, Nehemiah K. [a.]. (1997). Why we need the ban. Swara, 20(3):6. **Annotation:** Relaxation of trade controls in elephant products at CITES Conference of Parties could be death knell for East Africa's elephants" [E/ECM].
- 4933 \*wvU ROUFFIGNAC Claire, DE, BOWEN, David Q., COOPE, G. Russell, KEEN, David H., LISTER, Adrian M., MADDY, Darryl, ROBINSON, J. Eric, SYKES, G. A., and WALKER, Michael J. C. (1995). Late middle Pleistocene interglacial deposits at Upper Strensham, Worcestershire, England. Journal of Quaternary Science, 10:15-31.
- 4934 LrnC RUBEN, L. (1991). A cry from the wild: a tale of two orphans. Macdonald, London, 143 pp. **Annotation:** Photo story of hand rearing of orphan elephant calves by Daphne Sheldrick and staff. Growth and development of male and female calves, from time they are identified and delivered to orphanage in NNP until successfully released into group of elephants [ID-H/M&DR].
- 4935 EcwW RUDRAN, R. (1988). Strategy for elephant conservation and management in Sri Lanka. Denver Service Center, National Parks Service, US Department of the Interior.
- 4936 EcjW RUDRAN, R., JAYEWARDENE, J., and JAYASINGHE, W. A. (1995). Need for an integrated approach to elephant conservation in Sri Lanka. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 197-216. Bombay Natural History Society, Bombay. Oxford University Press, 535 pp.
- 4937 LnwW RUESS, R. W. and HALTER, F. L. (1990). The impact of large herbivores on the Seronera woodlands, Serengeti National Park, Tanzania. African Journal of Ecology, 28(4):259-275. **Annotation:** Impact of large herbivores including elephants on structure and composition of woodlands of Seronera Valley in SNP was reassessed in 1982 by updating an earlier survey by Croze (1974). Species composition, stand structure and type and extent of browse damage were recorded in 22 open woodland stands. Destruction of mature trees by elephants and intense browsing pressure on recruitment sized trees by giraffes have significantly decreased proportion of mature trees in Seronera Valley over the last two decades [ID-H/M&DR].
- 4938 LcjW RUGGIERO, Richard G. (1989). The ecology and conservation of the African elephant (*Loxodonta africana oxyotis* Matschie, 1900) in Gounda-St. Floris N. P., Central African Republic. Ph.D. dissertation, Rutgers University (USA), x + 289 pp.
- 4939 LbuW RUGGIERO, Richard. (1990). The effects of poaching disturbance on elephant behaviour. Pachyderm, 13:42-44. **Annotation:** Number of elephants in Central African Republic (CAR) had dramatic decrease over past 10 years, result of uncontrolled poaching and little government action. CAR's late 1970s estimate of 63,000 elephants reduced to 19,000 by 1989. Extensive poaching caused changes in feeding behavior and diurnal movements and migratory patterns in Gounda-St. Floris National Park [ID-H/M&DR].
- 4940 LuwW RUGGIERO, Richard G. (1991). Opportunistic predation of elephant calves. African Journal of Ecology, 29(1):86-89. **Annotation:** Predation of elephants by lions in 1981-1984 study in Gounda-St. Floris National Park (Central African Republic). Suggests one of three lion prides in area developed habit of preying on juveniles orphaned by poachers. Elephant herds in excess of 1,000 individuals observed on numerous occasions [ID-H/M&DR].
- 4941 LncW RUGGIERO, R[ichard]. G. (1992). Seasonal forage utilization by elephants in central Africa. African Journal of Ecology, 30(2):137-148. **Annotation:** Foraging by adult African elephants studied in Terminalia /Combretum woodlands of Manovo-Gounda-St. Floris National Park. Feeding mainly at night, elephants spend 17 hours per day eating food weighing 7% of body weight in a ratio of 3.5 to 1 grass to browse. Information collected on weight per trunkful, defecation to estimated intake and assimilation efficiency. Elephants experienced nutritional stress in dry season due to more human activity and less forage availability [ID-H/M&DR].
- 4942 LewW RUGGIERO, Richard G. and FAY, J. Michael. (1994). Utilization of termitarium soils by elephants and its ecological implications. African Journal of Ecology, 32(3):222-232. **Annotation:** African elephants in moist dystrophic savanna woodlands (Saint Floris National Park, Central African Republic) observed to excavate termite mounds and eat soil. Soil from termite mound eating sites showed elevated pH level and clay content and concentrations of exchangeable bases nearly seven times those of the surrounding topsoil. Mineral licks and associated waterholes are centers of social contact for elephants and other large mammal species. These areas are important where mineral nutrient availability is low [ID-H/M&DR].
- 4943 EqtC RUHTER, D. and OLSEN, T. (1993). Management of the Asian elephant (*Elephas maximus*) at the Houston Zoological Gardens. International Zoo Yearbook, 32:253-257.
- 4944 LcoW RUTBERG, A. (1997). Kinder, gentler elephant control. HSUS News, 42(1):30-31. **Annotation:** *Loxodonta africana*, population, endocrinology, biochemistry, culling, KNP [MPK].

- 4945 LiuW RYAN, Carol. (1990). The ivory ban from Zimbabwe's perspective [from LETTERS]. *Oryx*, 24:167-168.
- 4946 LcjW SACIM. (1994). The SACIM Treaty: its aims and objectives. A position paper presented by Botswana, Malawi, Namibia and Zimbabwe. In *The African elephant in the context of CITES 19-23 September, 1994 Kasane, Botswana*. Part B background papers. Department of the Environment, London, United Kingdom, pp. 77-82.
- 4947 BnoC SADLER, William C. (1995). Vitamin E in elephants. *Journal of the Elephant Managers Association*, 6(1):41-43.
- 4948 BnoC SADLER, W. C., HOPKINS, D. T., MILLER, R. E., JUNGE, R. E., HOUSTON, E. W., READ, B., KUEHN, G., GONZALES, B., MILLER-EDGE, M., KAPUSTIN, N., and OLSON, D. (1994). Vitamin E forms for elephants. *1994 Proceedings of the American Association of Zoo Veterinarians*, pp. 360-370.
- 4949 \*vaU SAEGUSA, Haruo. (1987). Cranial morphology and phylogeny of the stegodonts. *The Compass*, 64(4):221-243.
- 4950 \*vaU SAEGUSA, Haruo. (1989). Molar structure and taxonomy of east Asian stegodonts. D. Phil. thesis. Kyoto University, 173 pp. + 14 pls.
- 4951 \*vaU SAEGUSA, Haruo. (1993). A note on cranial materials of *Stegodon orientalis*, Owen 1870 (Stegodontidae, Proboscidea) from Yanjingou, Sichuan, China. *Humans and Nature*, 1:35-56 [in Japanese with English abstract].
- 4952 \*vaU SAEGUSA, Haruo. (1996). Sister group relationships within Elephantoidea as suggested by the occlusal direction of their teeth. *International Symposium on Geology and Environment*, 31 January-2 February 1996, 133-145. **Annotation:** "Occlusal motion in *Zygodon*, *Tetralophodon*, *Anancus*, and *Stegolophodon* was studied based on the various wear surface configurations of their cheek teeth" [E/ECM].
- 4953 \*avU SAEGUSA, Haruo. (1996). Stegodontidae: evolutionary relationships. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 178-190. Oxford University Press, 472 pp. **Annotation:** Systematics, teeth, in China, Japan, Taiwan, Burma, Indonesia, India. *Stegolophodon* and *Stegodon* are placed in Stegodontidae [HS].
- 4954 \*avU SAEGUSA, Haruo and TARUNO, H. (1991). Stegodonts. In *Japanese proboscidean fossils* (ed. T. Kamei), pp. 68-110. Tsukiji-Shokan, Tokyo [in Japanese].
- 4955 \*vhU SAGRI, Mario, ABBATE, Ernesto, AZZAROLI, Augusto, BALESTRIERI, Maria Laura, BENVENUTI, Marco, BRUNI, Piero, FAZZUOLI, Milvio, FICCARELLI, Giovanni, MARCUCCI, Marta, PAPINI, Mauro, PAVIA, Giulio, REALE, Viviana, ROOK, Lorenzo, and TECLE, Tewelde Medhim. (1998). New data on the Jurassic and Neogene sedimentation in the Danakil Horst and Northern Afar Depression, Eritrea. *Museum National d'Histoire Naturelle (Paris)*, 177:193-214 [in English; abstracts in English and French]. **Annotation:** Jurassic Antalo Limestone in Danakil Horst sedimentary cover, Neogene volcano-sedimentary suite of Sahel area and coeval sedimentary filling of northern Afar Depression have been examined. Fragment of lower jaw and teeth of *Deinotherium* has been found at base of Dogali Formation, indicating early Miocene age [E/ECM].
- 4956 LwmW SAID, Mohammed Y., CHUNGE, Ruth N., CRAIG, G. Colin, THOULESS, Chris R., BARNES, Richard F. W., and DUBLIN, Holly T. (1995). African Elephant Database 1995. *Occasional Paper of the IUCN Species Survival Commission*, No. 11:iv, 1-225. **Annotation:** This publication, which is essentially the "hard copy" of the African Elephant Database housed in the UNEP/GRID Nairobi, outlines background and revised structure of elephant database, looks at data from which 1995 database was constructed and describes how to read the material. Since data is qualitative and reliability of numbers is insufficient for comparative analysis, estimates for range states, regions or continent as a whole are not given as single figures with plus or minus range. Publication includes categorization: estimates are grouped as "Definite", Probable, Possible and "Speculative", according to criteria laid down by AfESG Data Review Taskforce. Each of four groups is exclusive and data from any country can be made up of one or more types. Reflects many methods for estimating elephant numbers and their shortcomings [ID-H/M&DR]. Reviewed in "Rhino & Elephant Journal", 10:7-9; cf. Reference no. 2682 [ECM].
- 4957 BicB SATTO, K. (1992). *A primer to endangered species law: obtaining federal permits for specimens protected by endangered species laws*. Smithsonian Institution, Washington, D.C., pages not provided.
- 4958 EmjW SALE, J. B. (1992). Preface. In *Counting Asian elephants in forest*. FAO, Bangkok.
- 4959 EcwW SALE, J. B. and BERKMULLER, K. (1988). *Manual of wildlife techniques for India*. Field Document No. 11 (FO:IND/82/003 July 1988). Wildlife Institute of India & FAO, Dehra Dun, India.
- 4960 EmjW SALE, J. B. and JOHNSINGH, A. J. T. (1988). Counting Asian elephants, appendix 1 of Draft Proceedings of the IUCN/SSC Asian Elephant Specialist Group Meeting, Chiangmai, Thailand, 19-21 January, 1988. Compiled by Charles Santiapillai. Mimeo. Bogor, Indonesia: WWF-Indonesia Programme, May 1988.
- 4961 EnbW SALE, J. B., CHAUDHURY, S., and KHAN, A. (1989). Ranging and feeding patterns of a Rajaji tusker. *Proceedings of the National Symposium on the Asian elephant held at Kerala Agricultural University, Trichur, India from 16-19 January 1989* (ed. E. G. Silas, K. M. Nair, and G. Nirmalan).
- 4962 LicU SALIH, Halima A. A. (1993). International expert registers Sudanese ivory. *New Horizon* (Khartoum, Sudan), December 12, 1993:6.
- 4963 LbwW SAM, Moses K. and BARNES, Richard. (1998). Elephants and human ecology in northeastern Ghana and northern Togo [Abstract]. *Pachyderm*, 25:43-44 [in English and French]. **Annotation:** Amount and quality of habitat for elephants depends on needs of human population [E/ECM].
- 4964 LcjW SAM, M. K., BARNES, R[ichard] F. W., and OKOUMASSOU, K[otchikpa]. (1998). Elephants, human ecology and environmental degradation in north-eastern Ghana and northern Togo. *Pachyderm*, 26:61-68 [abstract in French]. **Annotation:** The objective of a survey conducted 1996 was to determine status of elephants and evaluate crop-raiding problem. Studies recommended to form foundation for land use plan [ECM].
- 4965 EcjU SAMARASINGHE, S. J. (1988). An encounter with an elephant. *Loris*, 18(1):28-29.
- 4966 \*avU SAMODRA, H. (1989). Kedudukan stratigrafi temuan fossil *Stegodon* di pulau Sangihe. Paper presented at the XVIII annual meeting of the A. I. G., Yogyakarta, December, 1989 [in Indonesian].
- 4967 EcwW SAMPSON, Eric. (1997). President signs Asian Elephant Conservation Act. *Journal of the Elephant Managers Association*, 8(3):23. **Annotation:** Article printed here in its entirety: "On November 19, President Clinton signed the Asian Elephant Conservation Act of

1997. Sponsored by Representative Jim Saxton (NJ) with 26 cosponsors, the bill requires the Secretary of the Interior to direct funds from the Asian Elephant Conservation Fund to projects aimed at conserving the animals in the wild. Captive breeding projects are not eligible for funds unless the elephants are to be released to the wild" [ECM].
- 4968 LmcW SANCHEZ-ARINO, T. (1987). On the trail of the African elephant. Rowland Ward, London, 247 pp. **Annotation:** Revised and updated edition of "Ivory". P. 7: *pumilio* = pigmy elephant (gives measurements). Best spot to find *pumilio*: southwest Ivory Coast (east of Grabo, west of Subré, and along River San Pedro); southeast Cameroon (along rivers Woumo and Sangha); northeast Gabon (east of Minvul and north of Makoku); North Congo Republic (areas of Epéna and Ekuamu); and Zaire (east of L. Zaire, south of Bikoro, north of Bomongo) [MPK].
- 4969 \*avU SANDERS, W. J. (1990). Fossil Proboscidea from the Pliocene Lusso Beds of the Western Rift, Zaire. In Evolution of environments and Hominidae in the African Western Rift Valley (ed. N. T. Boaz), Vol. 1, pp. 171-187. Virginia Museum of Natural History Memoir, 356 pp.
- 4970 \*vaU SANDERS, W. J. (1999). Oldest record of *Stegodon* (Mammalia: Proboscidea). Journal of Vertebrate Paleontology, 19 (4):793-797.
- 4971 BcwB SANDS, Philippe J. and BEDECARRE, Albert P. (1990). Convention on international trade in endangered species: the role of public interest non-governmental organizations in ensuring the effective enforcement of the ivory trade ban. Boston College of Environmental Affairs Law Review, 17(4):799-822.
- 4972 EcwW SANTIAPILLAI, Charles. (1988). An assessment of the Air Mesaji elephant problem. Tigerpaper, 15(1):15-21.
- 4973 EcwW SANTIAPILLAI, Charles. (1989). The status, distribution and conservation of elephant in Bhutan. Tigerpaper, 16(4):19-28.
- 4974 EcmW SANTIAPILLAI, Charles. (1991). Estimating elephant numbers and densities in Asia: case studies from Sri Lanka and Sumatra. In Censusing elephants in forests: Proceedings of an International Workshop (ed. U. Ramakrishnan, J. A. Santosh, and R. Sukumar), pp. 46-50. Asian Elephant Conservation Centre, Bangalore.
- 4975 EceW SANTIAPILLAI, Charles. (1991). Management of elephant in Xishuangbanna Nature Reserve, P. R. China. Tigerpaper, 18(2):1-5.
- 4976 EcmW SANTIAPILLAI, Charles. (1992). [Reports of] Asian Elephant Specialist Groups. Species, 18:54.
- 4977 EceW SANTIAPILLAI, Charles. (1993). Conservation and management of megaherbivores in Asia. Abstracts of the 6th International Theriological Congress, held in Sydney, New South Wales, Australia, July 1-10, 1993, 6:269-270.
- 4978 EugW SANTIAPILLAI, Charles. (1993). Elephants under threat in Laos. Gajah, 10:10. **Annotation:** Between 1990 and 1992, about 50 elephants were killed for tusks, skin and meat. Ivory carvers used hand tools to make trinkets for sale to Thai tourists [E/SLS].
- 4979 EcwW SANTIAPILLAI, Charles. (1993). News from Sri Lanka. Gajah, 11:5. **Annotation:** Estimate of at least 2,000 elephants present in five regions in Sri Lanka [E/JLP].
- 4980 EkwW SANTIAPILLAI, Charles. (1993). News from Vietnam. Gajah, 11:47. **Annotation:** Progress of program to relocate 3 herds of elephants north-east of Saigon in exchange for at least 15 elephants [JLP].
- 4981 BgjB SANTIAPILLAI, Charles. (1993). Review of "The illustrated encyclopedia of elephants" consultant editor, S. Keith Eltringham, published 1991 by Salamander Books, London, 188 pp. Gajah, 10:34-39. Also reviewed in "Tigerpaper" (1994), 21(1):26-32.
- 4982 EleU SANTIAPILLAI, Charles. (1994). Elephant mortality in Sri Lanka. Gajah, 12:48-54.
- 4983 EgjB SANTIAPILLAI, Charles. (1994). Review of "The elephant in Sri Lanka" by Jayantha Jayewardene, published 1994 by The Wildlife Heritage Trust, Colombo, Sri Lanka, 128 pp. Gajah, 12:84-85.
- 4984 EkcW SANTIAPILLAI, Charles. (1994). Use of immobilization for capture and translocation of elephants in the province of Lampung, Sumatra. Tigerpaper, 21(2):1-4.
- 4985 EcwW SANTIAPILLAI, Charles. (1996). Mitigation of human-elephant conflicts in Sri Lanka. Gajah, 15:1-7. **Annotation:** In Asia, elephant depredation is a way of life. Increasing human population and agricultural land use have reduced area available to wildlife, particularly elephants in Sri Lanka. Activities of ivory poachers and guerrillas drive elephants into smaller ranges of relatively greater safety such as national parks [E/ECM].
- 4986 EcwW SANTIAPILLAI, Charles. (1997). The Asian elephant conservation: a global strategy. Gajah, 18:21-39. **Annotation:** While there are over 600,000 African elephants in 4.5 million km<sup>2</sup>, in 37 countries in Africa, even optimistic figures indicate that there are no more than 60,000 free-ranging Asian elephants, inhabiting a total of 500,000 km<sup>2</sup> in 13 countries stretching from India to Indo-China [E/ECM, p. 21].
- 4987 EgjB SANTIAPILLAI, Charles. (1997). Contradictions, indifference and the elephant drive. The Island (Sri Lanka), 31 July:10.
- 4988 EcwB SANTIAPILLAI, Charles. (1997). Elephant conservation in Sri Lanka. The Island (Sri Lanka), 24 August.
- 4989 EgjB SANTIAPILLAI, Charles. (1997). Human-elephant conflict management in Sri Lanka. The Island (Sri Lanka), 24 April:8.
- 4990 EcbW SANTIAPILLAI, Charles. (1998). Balancing elephant conservation with human interests in Sri Lanka. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), pp. 16-17. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 4991 EchW SANTIAPILLAI, Charles. (1998). Research studies on the elephant in Sri Lanka: an overview. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), pp. 31-42. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 4992 EcbW SANTIAPILLAI, Charles. (1998). Roots of human-elephant conflict in Sri Lanka. Abstract presented at National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), p. 9. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 4993 EgjB SANTIAPILLAI, Charles and DE SILVA, M. (1994). An action plan for the conservation and management of elephant (*Elephas maximus*) in Sri Lanka. Gajah, 13:1-24.
- 4994 EcwW SANTIAPILLAI, Charles and JACKSON, Peter (compilers). (1990). The Asian elephant: an action plan for its conservation. IUCN/SSC Asian Elephant Specialist Group, IUCN, Gland, Switzerland, 80 pp.
- 4995 EcjW SANTIAPILLAI, Charles and JAYEWARDENE, Jayantha. (1999). First national symposium on elephant management and conservation in Sri

- Lanka. Tigerpaper, 26(2):19-23. **Annotation:** Identifies escalating human-elephant conflict as one of the serious threats facing long-term survival of elephants in Sri Lanka [E/ECM].
- 4996 **EcwW** SANTIAPILLAI, Charles and LI, Y. (1990). Conservation of elephant in Xishuangbanna Nature Reserve in People's Republic of China. Wildlife, 8(2):3.
- 4997 **EcbW** SANTIAPILLAI, Charles and SUPRAHMAN, H. (1995). The Sumatran elephant (*Elephas maximus sumatranus*): its population structure and impact on woody vegetation in the Way Kambas National Park, Sumatra, Indonesia. Gajah, 14:10-27.
- 4998 **EcwW** SANTIAPILLAI, Charles and WIDODO, Sukohadi Ramono. (1990). Sumatran elephant database. IUCN/SSC Asian Elephant Specialist Group Newsletter No. 5, Summer 1990.
- 4999 **EqtC** SANTIAPILLAI, Charles and WIDODO, Sukohadi Ramono. (1992). Asian elephants: nature's four-wheel drive vehicle. Gajah, 9:18-26.
- 5000 **EcwW** SANTIAPILLAI, Charles and WIDODO, Sukohadi Ramono. (1993). Reconciling elephant conservation with economic development in Sumatra. Gajah, 10:11-18. **Annotation:** Recommendations to protect elephants in 44 areas of Sumatra [JLP].
- 5001 **EewW** SANTIAPILLAI, Charles and WIDODO, Sukohadi Ramono. (1993). Why do elephants raid crops in Sumatra. Gajah, 11:55-58.
- 5002 **EcBW** SANTIAPILLAI, Charles, DISSANAYAKE, S. R. B., and WIJEYAMAHAHAN, S. (1995). Habitat enrichment in Blocks III and IV in Ruhuna National Park, Sri Lanka. Gajah, 14:32-42.
- 5003 **EwmW** SANTIAPILLAI, Charles, XIANG, Zhu, DONG, Y. H., and SHENG, Q. Z. (1991). Distribution of Asian elephant in Xishuangbanna, People's Republic of China. WWF Project 3194 Report. World Wide Fund for Nature, Gland, Switzerland.
- 5004 **EwcW** SANTIAPILLAI, Charles, XIANG, Zhu, HUA, D. Y., and ZHONG, S. Q. (1994). Distribution of elephant in Xishuangbanna Dai Autonomous Prefecture, China. Gajah, 12:34-45.
- 5005 **EuiW** SANTIAPILLAI, Charles, SILVA, Ajith, KARYAWASAM, Champika, ESUFALI, Shameema, JAYANITHTHI, Salila, BASNAYAKE, Mano, UNANTENNE, Vasantha, and WIJEYAMOHAHAN, S. (1999). Trade in Asian elephant ivory in Sri Lanka. Oryx, 33(2):176-180. **Annotation:** Elephants in Sri Lanka killed primarily for interfering with agriculture; ivory poaching a byproduct. About 7.5% of bulls are tuskers and under poaching pressure outside protected areas [E/ECM].
- 5006 **EmwW** SANTOSH, J. A. and SUKUMAR, R. (1995). Some solutions to problems in estimation of elephant density. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 394-404. Bombay Natural History Society, Bombay. Oxford University Press, 535 pp.
- 5007 **BgzB** SARAVANAMUTTU, S. and SANTIAPILLAI, C. (1994). A bibliography on elephants. Part I: Sri Lanka. Gajah, 12:58-83.
- 5008 **BgzB** SARAVANAMUTTU, S. and SANTIAPILLAI, C. (1994). A bibliography on elephants. Part II: Sri Lanka. Gajah, 13:40-56.
- 5009 **BgzB** SARAVANAMUTTU, S. and SANTIAPILLAI, C. (1994). A bibliography on elephants. Part III: Sri Lanka. Gajah, 14:49-62.
- 5010 **BdqC** SARGENT, Eva Lee, WELLS-MIKOTA, Susan, and PAGE, Douglas. (1992). Development of an elephant medical manual. The 13th International Elephant Workshop, Atlanta, 1992, pp. 129-136. Zoo Atlanta, Georgia, 151 pp.
- 5011 **BovU** SARICH, Vincent. M. (1993). Mammalian systematics: twenty-five years among their albumins and transferrins. In Mammal phylogeny: placentals (ed. F. S. Szalay, M. J. Novacek, and M. C. McKenna), pp. 103-114. Springer-Verlag, New York, 321 pp.
- 5012 **LiuW** SATCHELL, Michael. (1996). Save the elephants: start shooting them. U.S. News & World Report, 121(21):51-53. **Annotation:** "Animal lovers hail the ivory ban. Many African nations hate it — and say it hurts wildlife" [E/ECM].
- 5013 **LckW** SAUNDERS, C. (1994). Profile: Clem Coetsee. The Rhino & Elephant Journal, 9:2-4. **Annotation:** Translocation of elephants, from GNP and others, *Loxodonta africana*, culling [MPK].
- 5014 **\*ewU** SAUNDERS, Jeffrey J. (1987). Britain's newest mammoths. Nature, 330(6147):419.
- 5015 **\*avU** SAUNDERS, Jeffrey J. (1988). Fossiliferous spring sites in southwestern Missouri. Bulletin of the Buffalo Society of Natural Sciences, 33:127-149.
- 5016 **\*evU** SAUNDERS, Jeffrey J. (1990). Immanence, configuration, and the discovery of America's past. In Megafauna and man: discovery of America's heartland (ed. L. D. Agenbroad, J. I. Mead, and L. W. Nelson), pp. 136-143. The Mammoth Site of Hot Springs, South Dakota, Inc., Hot Springs, Scientific Papers, Volume 1, 149 pp.
- 5017 **\*ewU** SAUNDERS, Jeffrey J. (1996). North American Mammutidae. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 271-279. Oxford University Press, 472 pp.
- 5018 **\*mvU** SAUNDERS, Jeffrey J. (1999). Morphometrical analyses of *Mammuthus columbi* from the Dent Site, Weld County, Colorado. Deinsea, 6:55-78. **Annotation:** See Reference no. 3720 for details about "Deinsea 6" [ECM/JS].
- 5019 **\*jeU** SAUNDERS, Jeffrey J. (1999). Ties that bind: family values protected mammoths. Discovering Archaeology, 1(5):34-35.
- 5020 **\*evU** SAUNDERS, Jeffrey J. and DAESCHLER, Edward B. [Foreword by John L. Cotter]. (1994). Descriptive analyses and taphonomical observations of culturally-modified mammoths excavated at "the gravel pit," near Clovis, New Mexico in 1936. Proceedings of the Academy of Natural Sciences of Philadelphia, 145:1-28 [abstracts in English and Russian]. **Annotation:** "The vertebrate fossil collection at the Academy of Natural Sciences of Philadelphia includes the remains of Mammoth 1 and Mammoth 2 recovered in 1936 by Dr. John L. Cotter and party. These mammoths were found in association with the type Clovis Fluted projectile points at Blackwater Locality No. 1, near Clovis, in Roosevelt County, New Mexico" [E/ECM].
- 5021 **\*evU** SAUNDERS, Jeffrey J. and TASSY, Pascal. (1989). Le mastodonte américain. La Recherche, 20(209):452-461.
- 5022 **\*evU** SAUNDERS, Jeffrey J., DAESCHLER, Edward B., and DAWSON-SAUNDERS, B. K. (1991). An engraved mammoth-bone from Blackwater Locality No. 1, New Mexico. Paper presented at the 56th Annual Meeting of the Society for American Archaeology, April 24-28, 1991, New Orleans, Louisiana.
- 5023 **\*eiU** SAUNDERS, Jeffrey J., HAYNES, C. V. Jr., STANFORD, D., and AGOGINO, G. A. (1990). A mammoth-ivory semifabricate from Blackwater Locality No. 1, New Mexico. American Antiquity, 55:112-119.
- 5024 **LugW** SAVA WILDLIFE GROUP (eds). (1994). The African elephant as a game ranch animal. Proceedings of a Symposium, Berg-en-Dal, Kruger National Park, Republic of South Africa, 29-30 April 1991. Onderstepoort, South Africa: SAVA Wildlife Group, 192 pp. **Annotation:** Captivity, distribution, habitat, translocation, culling, disease, digestion, physiology. [SAVA = South African Veterinary Association] [MPK].

- 5025 \*evU SAVAGE, Robert Joseph Gay. (1990). The African dimension in European early Miocene mammal faunas. In European Neogene Mammal Chronology (ed. E. H. Lindsay, V. Fahlbusch, and P. Mein), pp. 587-599. Plenum, New York [copyright date, 1989], 658 pp.
- 5026 \*avU SAVAGE, Robert Joseph Gay and COURT, Nicholas. (1989). Skeletal anatomy of *Barytherium*. Abstracts of Papers and Posters Fifth International Theriological Congress, Rome, 22-29 August 1989, Volume I:159.
- 5027 LcwW SAVORY, R. (1994). Kruger to Knysna: the journey of three young elephants. On Track (South Africa), Summer:54.
- 5028 LckW SAVORY, Rozanne. (1996). Elephant relocation: habitat acquisition is the key. The Rhino & Elephant Journal, 10(9):35-36. **Annotation:** Plan for elephant relocation implemented in KNP, in place of elephant culling [SLS].
- 5029 LcdW SAYER, P. and ROTTCHER, D. (1993). Wildlife management and utilization in East Africa. In Zoo and wild animal medicine (3rd edition) (ed. M. E. Fowler), pp. 101-111. W. B. Saunders Company, Philadelphia, 617 pp. **Annotation:** *Loxodonta africana*, disease, parasites, poaching, Kenya, Uganda, Tanzania [MPK].
- 5030 LjwW SCHAAF, C. D. (1993). Uganda revisited. Wildlife Conservation, 96(4):76-77. **Annotation:** Return to MFNP after 20 years [MPK].
- 5031 LdqC SCHANBERGER, Anita. (1991). Seasonal dermatitis lesions in a captive African elephant. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 65-74. Burnet Park Zoo, Syracuse, 161 pp.
- 5032 \*wvU SCHIEBOUT, Judith A. (1998). When elephants and rhinos roamed Louisiana: hunting Miocene fossils on Fort Polk. Kappa Phi Journal National Forum, 78(1):26-29. **Annotation:** Brief mention of proboscideans. Louisiana Miocene sites have yielded remains of rhinos, ancient camels, and gomphothere-type-elephants [E/ECM; p. 28].
- 5033 BcqC SCHILFARTH, Jurgen. (1997). New elephant refuge planned in Europe. Journal of the Elephant Managers Association, 8(3):4. **Annotation:** Elefanten-Hilfe Europa E. V. (Elephant-Aid Europe), was founded during a meeting at Munster Zoo, Germany, with goal to build a refuge for badly housed, mistreated, injured, or sick elephants [E/ECM].
- 5034 BmqC SCHILFARTH, Jurgen. (1997). The North American elephant population: can it sustain itself? Journal of the Elephant Managers Association, 8(2):57-58. **Annotation:** In 10 years elephant numbers of both species will dwindle noticeably. In 20 years populations will have declined significantly [translated and summarized from "Elefanten in Zoo und Circus", Dokumentation Teil 2: Nordamerika published by European Elephant Group"; see reference nos. 3429, 3430, 3431] [E/JS].
- 5035 EqtC SCHMIDT, Jeremy. (1992). Elephant culture. Equinox, 64:36-49, with photography by Ted Wood. **Annotation:** Personal account documenting glorious and infamous association with man in Asia [E/JLP].
- 5036 BqrC SCHMIDT, Michael J. (1989). The fine art of elephant breeding. Animal Kingdom, 92(5):44-51.
- 5037 BrqC SCHMIDT, M. J. (1989). The role of the veterinarian in a captive elephant breeding program. Proceedings of the American Association of Zoo Veterinarians, 1989:44.
- 5038 ErbC SCHMIDT, Michael J. (1992). The elephant beneath the mask. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 92-97. Rodale Press, Emmaus (Pennsylvania), 240 pp. **Annotation:** *Loxodonta africana*, *Elephas maximus*, captivity, reproduction, endocrinology, attacking human, musth, behavior, WPZ [MPK].
- 5039 BrqC SCHMIDT, Michael J. (1993). Breeding elephants in captivity. In Zoo and wild animal medicine (3rd edition) (ed. M. E. Fowler), pp. 445-448. W. B. Saunders Company, Philadelphia, 617 pp. **Annotation:** *Elephas maximus*, *Loxodonta africana*, estrus, musth, endocrinology, behavior. See Reference nos. 1009, 3489, 3773, 3985, 4604 [MPK].
- 5040 EtqC SCHMIDT, Michael J. (1996). Working elephants. Scientific American, 274(1):82-87. **Annotation:** In dense forests of Myanmar (formerly Burma), elephants serve as ecologically benign alternative to mechanical logging equipment. Maintaining this tradition might help save these giants and Asian environment [E/ECM].
- 5041 ErqC SCHMIDT, M. J. and KHYNE u Mar. (1996). Reproductive performance of captive Asian elephants in Myanmar. Gajah, 16:23.
- 5042 BrqC SCHMIDT, Michael J. and MAR, Kyne U. (1995). Research on reproduction of captive elephants. Abstracts, The Wildlife Society, Second Annual Conference, Portland, Oregon, USA, September 12-17, 1995, p. 119.
- 5043 EdqC SCHMITT, Dennis L. (1996). Foot care in Asian elephants using a rotating elephant restraint device. 1996 Proceedings of the American Association of Zoo Veterinarians, 52-53.
- 5044 EroC SCHMITT, Dennis L. (1998). Report of a successful artificial insemination in an Asian elephant. Third International Elephant Research Symposium, Springfield, Missouri, June, 1998.
- 5045 EdoC SCHMITT, Dennis L. and HARDY, Douglas A. (1998). Use of Famcyclovir for the treatment of herpesvirus in an Asian elephant. Journal of the Elephant Managers Association, 9(2):103-106.
- 5046 EraC SCHMITT, Dennis, GLAZIER, J., BRADFORD, J., CARDEN, M., DUER, S., McDOWELL, S., and LUEDDE, D. (1998). Successful artificial insemination of an Asian elephant at Dickerson Park Zoo. Journal of the Elephant Managers Association, 9(2):92. **Annotation:** First artificial insemination in an elephant, resulting in pregnancy was "Moola", a 17 year old Asian [ERD].
- 5047 BgjB SCHNECK, Marcus. (1992). Elephants: gentle giants of Africa and Asia. Longmeadow Press, Stamford (Connecticut), 144 pp. Also Portland House, New York.
- 5048 \*vwU SCHNEIDER, Wolfgang. (1997). *Elephas antiquus* Falconer & Cautley, 1845 (Waldelefant) Unterkieferfund mit dp3 rechts und links. Cranium, 14(1):11-12 [in German].
- 5049 BcjW SCHULTE, Bruce A. (1995). Elephant conservation and management: problems, perspectives, and possibilities. Abstracts, The Wildlife Society, Second Annual Conference, Portland, Oregon, USA, September 12-17, 1995, p. 120.
- 5050 EboC SCHULTE, Bruce A. and FELDMAN, E. (1998). African elephant behavior monitored by keepers and relationships to progesterone levels. Third International Elephant Research Symposium, Springfield, Missouri, June, 1998.
- 5051 EroB SCHULTE, Bruce A. and PERRIN, T. E. (1994). Reproductive condition of female Asian elephants and their responsiveness to male secretions. Animal Behavioral Society (abstract).
- 5052 EroC SCHULTE, Bruce A. and RASMUSSEN, L. E. L. (1996). Responsiveness of female Asian elephants (*Elephas maximus*) to chemosignals from conspecific males. Presented at the American Society of mammalogists Annual Meeting, University of North Dakota, Grand Forks, North Dakota.



- 5053 BroB SCHULTE, Bruce A. and RASMUSSEN, L. E. L. (1999). Musth, sexual selection, testosterone and metabolites. In Advances in Chemical Communication in vertebrates 8 (ed. R. Johnston, D. Muller-Schwarze and P. Sorenson), pp. 383-397. Plenum Press, total pages not provided.
- 5054 EbrB SCHULTE, Bruce A. and RASMUSSEN, L. E. L. (1999). Signal-receiver interplay in the communication of male condition by Asian elephants. Animal Behavioral Society, 57:1265-1274.
- 5055 EroB SCHULTE, Bruce A., PERRIN, T. A., SCHMIDT, M. J., and RASMUSSEN, L. E. L. (1997). Female assessment of male state in Asian elephants (*Elephas maximus*). Animal Behavior Society, University of Washington, Seattle (Washington).
- 5056 EcwW SCHULTZ, B. O. (1988). Construction and maintenance of power fences for Indian Wildlife. Dehradun, India. Wildlife Institute of India and FAO. Field Document no. 18 (FO:IND/82/003).
- 5057 LdoB SCHUMACHER, Juergen, HEARD, Darryl J., CALIGIURI, Randolph, NORTON, Terry, and JACOBSON, Elliott R. (1995). Comparative effects of etorphine and carfentanil on cardiopulmonary parameters in juvenile African elephants (*Loxodonta africana*). Journal of Zoo and Wildlife Medicine, 26(4):503-507.
- 5058 LqtC SCHWAMMER, Harold M. (1997). A new facility for African elephants (*Loxodonta africana*) at the Schoenbrunn Zoo, Vienna, Austria. Journal of the Elephant Managers Association, 8(2):68-72.
- 5059 LqtC SCHWAMMER, Harold M. (1998). Training elephant keepers in Arkansas. Journal of the Elephant Managers Association, 9(2):139-146. **Annotation:** For five years, courses for keepers and handlers of elephants have been held in Greenbrier, Arkansas, by Heidi and Scott Riddle on a 330 acre sanctuary, Riddle's Elephant Breeding Farm and Wildlife Sanctuary. The aim is to reach acceptable parameters in which elephants and humans can co-exist and apply common sense as to how much physical closeness to a dangerous elephant is possible [E/ECM].
- 5060 BdoB SCHWARZENBERGER, Franz, STRAUSS, Gunter, HOPPEN, Hans-O., SCHAFTENAAR, Willem, DIELEMAN, S. J., ZENKER, Wolfgang, and PAGAN, Olivier. (1996). Progesterone and 20-oxo-progestagens (20-oxo-P) in the plasma of Asian (*Elephas maximus*) and African elephants (*Loxodonta africana*). Abstract, Paper presented at 29th annual general meeting of the Society for the Study of Reproduction, London, Ontario, 27-30 July 1996. Biology of Reproduction, 54(Supplement 1):163.
- 5061 EqtC SCHWEIGER, G. (1993). Geburtenübersicht Asiatischer Elefanten in Europa. In Elefanten in Zoo und Circus (ed. A. Hauffellner, F. Kurt, J. Schilfarth, G. Schweiger, J. Edwards, H. Heck, K. Kock, and R. Tanner), pp. 6-21. European Elephant Group, München, 232 pp.
- 5062 LguW SCOTT, Jonathan. (1992). Kingdom of lions. Swara, 15(5):16-21. **Annotation:** The wildlife sanctuary that provides material profit will survive [PFH/JMH].
- 5063 EroB SCOTT, N. L., SCHULTE, B. A., MELLEN, J. D., and RASMUSSEN, L. E. L. (1997). Do male Asian elephants (*Elephas maximus*) advertise musth in their urine? American Society of Mammalogists, Stillwater (Oklahoma).
- 5064 EqbC SEAL, David O. (1993). The most dangerous elephant in the country. Seattle Weekly, February 17:no page number provided. **Annotation:** "Cindy", a troubled Asian elephant in Tacoma Zoo, loses handler she loved. Her story of cruelty, beatings and affection, dramatizes how zoos put up legal barriers against close human contact elephants crave [E/ECM].
- 5065 EqrC SEAL, David. (1995). Drunken mahouts, a crying blind elephant and an all too sober leopard. Journal of the Elephant Managers Association, 6(3):60-65. **Annotation:** Covers *Elephas maximus*; conservation, translocation, musth, working, Mudumalai, India [MPK].
- 5066 LdqC SEAMAN, J. T. and FINNIE, E. P. (1987). Acute myocarditis in a captive African elephant, *Loxodonta africana*. Journal of Wildlife Diseases, 23(1):170-171.
- 5067 BqgC SEAMON, M. E. (1995). Design of the elephant facility and exhibit for the Jacksonville Zoological Gardens. Journal of the Elephant Managers Association, 6(1):31-35.
- 5068 LcjW SEELETSO, T. G. G. (1990). The draft elephant management plan. In The future of Botswana's elephants. Proceedings of a workshop organised by The Kalahari Conservation Society in conjunction with The Department of Wildlife and National Parks. 10 November 1990 (ed. P. Hancock) Gaborone, Botswana, Gaborone, Kalahari Conservation Society, pp. 74-76.
- 5069 EqcB SEIDENSTICKER, J. and LUMPKIN, Susan (eds). (1990). Asian elephants: John F. Eisenberg, George M. McKay, and John Seidensticker. Friends of the National Zoo and the National Zoological Park, Washington, D.C., 271 pp. **Annotation:** Reprintings of George M. McKay (1973, Reference no. 0299), John F. Eisenberg and Melvyn Lockhart (1972, Reference no. 0510), John Seidensticker (1984, Reference no. 2133). Zoos and Research in natural history, Introduction (Michael H. Robinson): Asian elephants natural history and conservation [JFE/JS].
- 5070 \*hwU SEMKEN, H. A., Jr. and FALK, C. R. (1987). Late Pleistocene/Holocene mammalian faunas and environmental changes on the northern plains of the United States. In Late Quaternary mammalian biogeography and environments of the great plains and prairies (ed. R. Graham, H. Semken, and M. Graham), pp. 176-313. Illinois State Museum Scientific Papers, Vol. 22.
- 5071 LgjW SEYDACK, Armin. (1993). Knysna se woudreus [Knysna's forest giants]. Custos (August):38-40 [in Afrikaans]. **Annotation:** *Loxodonta africana*, South Africa; available in English [MPK].
- 5072 LiuW SHACKLEFORD, S. (1989). Out of Africa: ivory prices soar. Blade Magazine, 16(1):36-41, 70-73.
- 5073 \*vwU SHAFER, Craig L. (1990). Nature reserves: island theory and conservation practice. Smithsonian Institution Press, Washington and London, xii + 189 pp.
- 5074 LejW SHAH, Anup and SHAH Manoj. (1994). Lions and elephant. Swara, 17(4):8-9.
- 5075 EqtC SHAND, Mark. (1991). Travels on my elephant. Jonathan Cape, London. Photographs by Aditya Patankar. Also published (1992) by Overlook Press, Woodstock, New York, 200 pp.
- 5076 BrbC SHAPIRO, T. and TERKEL, A. (1997). The breeding herds of African and Asian elephants at the Zoological Center Tel Aviv - Ramat Gan. IUDZG - The World Zoo Organization Conference Berlin Technical Scientific Session, August, 1997, p. 104.
- 5077 LcjW SHARP, Robin. (1997). African elephant range states meet in Senegal. Oryx, 31(1):9-10. **Annotation:** "From 11 to 16 November 1996 Ministers and senior officials from 31 African elephant range states met in Dakar, Senegal, to discuss issues affecting the future of the

- African elephant" [E/ECM].
- 5078 LcjW SHARP, Robin. (1997). The African elephant: conservation and CITES. *Oryx*, 31(12):111-119.
- 5079 LgjW SHAW, Angus. (1994). A jumbo breakthrough. *Skyhost* (Air Zimbabwe), 1(4):10-11.
- 5080 LcjW SHELDRIK, Daphne. (1988). Letters. *Swara*, 11(6):35-36. **Annotation:** Managing national park wildlife in Kenya.
- 5081 LciW SHELDRIK, Daphne. (1989). The elephant equation. The David Sheldrick Wildlife Trust, Nairobi, 6 pp. **Annotation:** For public information; Trust's stand on elephant conservation, population management and ivory trade [ID-H/M&DR].
- 5082 LnqC SHELDRIK, Daphne. (1990). Raising baby orphaned elephants. *Swara*, 13(4):13-17. **Annotation:** Hand rearing orphaned elephants. Physiological, physical and dietary needs of young animals [ID-H/M&DR].
- 5083 LqcC SHELDRIK, Daphne. (1990). Raising baby orphaned elephants: Part II. *Swara*, 13(5):23-27. **Annotation:** Hand rearing orphaned elephants, ability to rehabilitate them to the wild [ID-H/M&DR].
- 5084 LqrC SHELDRIK, Daphne. (1992). Raising orphaned elephants. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 114-115. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** *Loxodonta africana*, parenting, development, milk, behavior [MPK].
- 5085 LqcC SHELDRIK, Daphne. (1993). The orphans of Tsavo. *Care for the Wild News*, 6:10.
- 5086 LbcW SHELDRIK, Daphne. (1993). Tsavo and the 'gardeners' of Africa. *Zimbabwe Wildlife*, 72:21.
- 5087 LwjW SHELDRIK, Daphne. (1993). Vegetation changes in the Tsavo National Park. In The wilderness guardian (ed. Tim Corfield), pp. 350-361. Longman, Nairobi, 701 pp.
- 5088 LwcW SHELDRIK, Daphne. (2000). Vegetation changes in Tsavo National Park, Kenya, 1885 — 1996: elephant densities and management. *Elephant*, 2(4):26-33.
- 5089 LgwW SHELLEY, Steve. (1992). Desert & delta, the wonders of the northern Kalahari. *Swara*, 15(4):8-11. **Annotation.** Size of elephant tusks is smaller in this part of Africa perhaps due to increased poaching [PFH/JMH].
- 5090 BbqC SHEPHERDSON, David. (1999). Environmental enrichment for elephants: current status and future directions. The Elephant Managers Association, 10(1):69-77. **Annotation:** Goals and objectives of environmental enrichment, evaluating current programs, future plans for enrichment in elephant husbandry and management [E/ECM].
- 5091 LihW SHERIFF, A[bdul]. (1987). Slaves, spices and ivory in Zanzibar: integration of an East African commercial empire into the world economy. James Currey, London, xx + 297 pp. **Annotation:** See Spinage, 1994 (Reference no. 5236), p. 244 - for a table of "Ivory imported into Great Britain 1771-1918" [MPK].
- 5092 EcwW SHERPA, Mingma Norbu. (1994). Biodiversity conservation in Bhutan: a revised system of parks and reserves. *Tigerpaper*, 21(4):1-8. **Annotation.** Phipsoo Wildlife Sanctuary is important for elephant as well as Chital deer [SLS].
- 5093 LcuW SHERRY, Brian Y. and TATTERSALL, Fran H. (1996). The loss of a population of elephants in the Middle Shire Valley, southern Malawi. *Pachyderm*, 22:36-43. **Annotation:** *Loxodonta africana*, conservation, extinction, poaching, MGR [MPK].
- 5094 LcwW SHETE, Mwamba. (1992). Locals, leaders and conservation. *Swara*, 15(6):7.
- 5095 BuiW SHIELDS, T. (1988). Elephants massacred for ivory. Independent (London), April 4 1988:pages not provided. **Annotation:** *Loxodonta africana*, extinction, Kenya [MPK].
- 5096 \*hvU SHIMIZU, D., MATSUOKA, C., TAMURA, M., KAMIYA, H., KUGA, N., and ISHIGAKI, S. (1990). Mammalian footprints from Yasugawa site, late Pliocene, Japan. Board of Education of Khosei town, Japan [in Japanese].
- 5097 +icB SHIMOYAMA, Masahiko, MAEDA, Hisashi, SATO, Hidetoshi, NINOMIYA, Toshio, and OZAKI, Yukihiro. (1997). Nondestructive discrimination of biological materials by near-infrared fourier transform raman spectroscopy and chemometrics: discrimination among hard and soft ivories of African elephants and mammoth tusks and prediction of specific gravity of the ivories. *Applied Spectroscopy*, 51(8):1154-1158.
- 5098 LkrW SHORT, Roger V. (1992). Elephants and birth control. *New Scientist*, 135(1832):21-23. **Annotation:** Need for population control caused by range restriction in protected areas in Africa and land use conflict with humans. Feasible method could be mid-term abortion brought on by ingestion of abortive substance similar to RU486, which binds progesterone receptor in humans. Another approach could be to immunize animal with substance such as ZP3, a protein from transparent membrane known as zona pellucida that envelopes the egg of all mammals, which prevents sperm from becoming attached to the zona [ID-H/M&DR]. See Reference nos. 2963, 2995, 4131, 4777, 4786, 5527 [ECM].
- 5099 BhgB SHOSHANI, Jeheskel. (1987). Elephant research in historical perspective. Proceedings of the Seventh Annual Elephant Workshop, held at Calgary Zoo, Calgary (Alberta, Canada, September 25-27, 1986):63-76.
- 5100 \*vwU SHOSHANI, Jeheskel. (1987). A possible new species of *Barytherium* (Proboscidea, Mammalia) from the Fayûm, Egypt. *Journal of Vertebrate Paleontology*, Abstracts of Papers, Volume 7, Supplement to Number 3:25A.
- 5101 \*vaU SHOSHANI, Jeheskel. (1987). Stylohyoid bone of an *Amebelodon* from Florida. *Journal of Vertebrate Paleontology*, Abstracts of Papers, Volume 7, Supplement to Number 3:26A.
- 5102 BapB SHOSHANI, J[eheskel]. (1988). Elephants have a large neocortex too. *Behavioral and Brain Sciences*, 11(1):100.
- 5103 \*meU SHOSHANI, Jeheskel. (1988). A new hypothesis on the numbers of mastodons and mammoths in the USA. *Geological Society of America*, Abstracts with Programs, 20(5):388.
- 5104 BavB SHOSHANI, Jeheskel. (1988). Wildlife Questions: back to basics. *BBC Wildlife*, 6(12):654.
- 5105 LicW SHOSHANI, Jeheskel. (1989). An encounter with poachers. *Swara*, 12(4):19-20.
- 5106 \*meU SHOSHANI, Jeheskel. (1989). A report on the Shelton mastodon site and a discussion of the numbers of mastodons and mammoths in Michigan. *Michigan Academician*, 21(2):115-132. **Annotation:** Fide Shoshani, 1992 (Reference no. 5121), p. 400, there are 219 mastodons, 47 mammoths (in Michigan, as of 1989). See Reference no. 5164 [MPK].
- 5107 BcwW SHOSHANI, Jeheskel. (1990). The "aspirin" approach to elephant conservation. Presented at the Eleventh Annual International Elephant Workshop, held at Milwaukee County Zoo, Milwaukee, Wisconsin USA (October 24-27, 1990).

- 5108 **BicW** SHOSHANI, Jeheskel. (1990). "Aspirin" (solutions for the ivory trade) will only help to treat the symptoms — the "disease" (human population explosion) is a much more serious problem. Presented at the Michigan Academy of Sciences, Arts, and Letters. Albion College, Albion, Michigan, March 9-10, 1990.
- 5109 **\*mwU** SHOSHANI, Jeheskel. (1990). Distribution of *Mammuthus americanus* in the New World. *Current Research in the Pleistocene*, 7:124-127.
- 5110 **BapB** SHOSHANI, Jeheskel. (1991). Anatomy and physiology. In *The illustrated encyclopedia of elephants* (consult. ed. S. Keith Eltringham), pp. 30-47. Crescent Books, New York, 188 pp.; Salamander Books, London.
- 5111 **\*apU** SHOSHANI, Jeheskel. (1991). Capability of producing low frequency calls in *Mammuthus* vs. *Mammuthus*. *Geological Society of America, Abstracts with Programs*, 23(5):A457.
- 5112 **BjwW** SHOSHANI, Jeheskel. (1991). Elephant migration. In *Fantastic journeys: the marvels of animal migration* (consult. ed., R. R. Baker), pp. 194-199. Merehurst, London (produced by Weldon Owen, Australia), 240 pp.
- 5113 **+cwB** SHOSHANI, Jeheskel. (1991). Last of a noble line. In *Elephants: the Deciding Decade* (ed. R. Orenstein), pp. 41-49. Key Porter Books, Toronto/Sierra Club Books, San Francisco, 160 pp. Revised, updated reprint in 1997. **Annotation:** *Loxodonta africana*, *Elephas maximus*, mastodons, ivory, poaching, evolution, extinction [JLP].
- 5114 **\*vhU** SHOSHANI, Jeheskel. (1991). Origins & evolution. In *The illustrated encyclopedia of elephants* (consult. ed. S. Keith Eltringham), pp. 12-29. Crescent Books, New York, 188 pp.; Salamander Books, London. **Annotation:** *Loxodonta africana*, *Elephas maximus*, mammoths, mastodons, systematics [MPK].
- 5115 **LewW** SHOSHANI, Jeheskel. (1992). The African elephant and its environment. In *Elephant: the animal and its ivory in African culture* (ed. Doran H. Ross), pp. 43-59. Fowler Museum of Cultural History, University of California, Los Angeles, xxiv + 424 + ix pp.
- 5116 **BapB** SHOSHANI, Jeheskel. (1992). Anatomy and physiology. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 66-80. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London, pp. 66-81. **Annotation:** General anatomy, skin, skeleton, teeth, muscles, trunk, reproductive organs, and musth. Photographs and diagrams augment text [ID-H/M&DR]. **Errata:** (a) page 23, right column, 2nd line — "Cabreria, 1929" should be "Hay, 1922"; (b) page 70, right column, under "The teeth", 2nd paragraph, 8th line — change "This occurs 6 times..." to "This occurs 5 times..."; (c) page 233 under "Acknowledgments", right column, first entry, there is a reference to cross section of trunk on page 75; this illustration is not in the book [JS].
- 5117 **\*vaU** SHOSHANI, Jeheskel. (1992). Comparing mammoths and mastodons. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 56-57. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London.
- 5118 **BgaB** SHOSHANI, Jeheskel. (1992). Comparing the living elephants. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 36-51. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** Anatomical differences between species *Loxodonta africana* and *Elephas maximus*; reviews differences between subspecies in each region: two African, *L. a. africana* and *L. a. cyclotis* and three Asian, *E. m. maximus*, *E. m. indicus* and *E. m. sumatranus* [ID-H/M&DR].
- 5119 **+vaB** SHOSHANI, Jeheskel. (1992). The controversy continues: an overview of evidence for Hyracoidea-Tethytheria affinity. *Israel Journal of Zoology*, 38:233-244.
- 5120 **+vaB** SHOSHANI, Jeheskel. (1992). Cuvier vis-a-vis Huxley on the relationship of Hyracoidea and an update on an old controversy. In *Ongulés/Ungulates 91* (ed. F. Spitz, G. Janeau, G. Gonzalez, S. Aulagnier, J. Joachim, and C. S. Mann), pp. 103-112. S.F.E.P.M.-I.R.G.M. (Société Française pour l'Etude et la Protection des Mammifères - Paris Institut de Recherche sur les Grands Mammifères), Paris-Toulouse. **Annotation:** Proboscidea and Sirenia are sister-groups called Tethytheria, and this clade is joined by Hyracoidea [MPK].
- 5121 **\*evU** SHOSHANI, Jeheskel. (1992). Ecology and taxonomy: a new approach, using *Heterohyrax* vs. *Procavia* as a case study. *Israel Journal of Zoology*, 38(3/4):399-416. **Annotation:** Ecological pyramid with mammoths and mastodons, discussion on their population in USA [MPK].
- 5122 **+wbB** SHOSHANI, Jeheskel. (1992). Elephant migration. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 138-143. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also Simon & Schuster, London. **Annotation:** Paleontological evidence regarding wide distribution of ancestors of modern Elephantidae family of two species. Structure of elephant herds, seasonality of food and water availability in much of their present habitats and accumulated knowledge maintained within their matriarchal herds that allows them to move over long distances [ID-H/M&DR].
- 5123 **BgcB** SHOSHANI, Jeheskel (consultant ed.). (1992). *Elephants: majestic creatures of the wild*. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** Wide range of topics including evolution, anatomy and physiology, biology, behavior, distribution, environment, elephant-human interaction and conservation and management, in the context of keystone species. Chapters on Africa include African elephant population, question of culling, rise and fall of ivory market, migration, specific populations, wildlife director's perspective and memories of an early field researcher [ID-H/M&DR].
- 5124 **+avB** SHOSHANI, Jeheskel. (1992). The elephant's relatives. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 16-17. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London.
- 5125 **BcjB** SHOSHANI, Jeheskel. (1992). Epitome. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), p. 230-231. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** "Should the decimation of elephants continue, it would be impossible to predict what would happen to the elephant. Perhaps it will adapt... A vision I sometimes see has haunted me: instead of an Ahmed with ears spread wide, huge tusks, and trunk raised to trumpet, a different kind of elephant may develop: a stealthy, tuskless animal, which will communicate in a way that humans cannot hear, never announcing its precedence. Perhaps it will be smaller, and not require as much food, or perhaps it would move to remote areas, away from dead elephants and their dry bones, and be wary of its only natural enemy, man" [E/JLP].
- 5126 **\*avU** SHOSHANI, Jeheskel. (1992). Evolution of the Proboscidea. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 18-21, 24-33. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** Proboscidean fossil record reaching back about 55 million years to Eocene epoch indicates they occupied a variety of habitats in parts of all continents except

- Australia and Antarctica. Progressive increase in size, very specialized characters including trunk and dentition. Physical characteristics of known phyletic lines and their distribution through time [ID-H/M&DR].
- 5127 **LewW** SHOSHANI, Jeheskel. (1992). Why save elephants? In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 226-229. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** Super keystone species; principles of this concept, by conserving elephants, we conserve a significant number of other species and enrich our own biological inheritance [ID-H/M&DR].
- 5128 **BcjB** SHOSHANI, Jeheskel. (1993). Elephants: the super keystone species. *Swara*, 16(2):25-29. **Annotation:** Elephants are important because they are keystone species, their presence enables other species to survive. They modify their environment, disperse seeds, convert woodlands to grasslands, dig and enlarge waterholes [ID-H/M&DR].
- 5129 **LvaW** SHOSHANI, Jeheskel. (1993). How many species or subspecies of forest *Loxodonta* exist? *Abstracts, Sixth International Theriological Congress, Sydney, Australia*, 4-10 July 1993, pp. 278-9. **Annotation:** *Loxodonta a. africana*, *L. a. cyclotis*, systematics [MPK].
- 5130 **+vaB** SHOSHANI, Jeheskel. (1993). Hyracoidea-Tethytheria affinity based on myological data. In *Mammal phylogeny: placentals* (ed. F. S. Szalay, M. J. Novacek, and M. C. McKenna), pp. 235-256. Springer-Verlag, New York, 321 pp. **Annotation:** Proboscidea and Sirenia are sister-groups called Tethytheria; this clade is joined by Hyracoidea [MPK].
- 5131 **\*vaU** SHOSHANI, Jeheskel. (1994). Review of "Fossil elephantoids from the hominid-bearing Awash Group, Middle Awash Valley, Afar Depression, Ethiopia" by J. E. Kalb, and A. Mebrate, published 1993 by "Transactions of the American Philosophical Society", 83(1), xv + 1-114. *The Quarterly Review of Biology*, 69(3):392-3.
- 5132 **+avB** SHOSHANI, Jeheskel. (1996). Para- or monophyly of the gomphotheres and their position within Proboscidea. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 149-177. Oxford University Press, 472 pp. **Annotation:** *Stegolophodon* and *Stegodon* are placed in Stegodontidae, *Mammuthus* and *Elephas* are more closely related to each other than either is to *Loxodonta* [JS].
- 5133 **BavB** SHOSHANI, Jeheskel. (1996). Skeletal and other basic anatomical features of elephants. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 9-20. Oxford University Press, Oxford, 472 pp.
- 5134 **\*vwU** SHOSHANI, Jeheskel. (1996). Testing the generalist vs specialist hypothesis: ecological densities and taxonomic inferences from *Mammuthus* and *Mammut* in North American and Mexico. *Journal of Vertebrate Paleontology, Abstracts of Papers*, Volume 16, Supplement to Number 3:65A.
- 5135 **\*hvU** SHOSHANI, Jeheskel. (1997). Henry Fairfield Osborn. In: *Biographical dictionary of American and Canadian naturalists and environmentalists* (ed. K. B. Sterling, R. P. Harmond, G. A. Cevasco, and L. F. Hammond), pp. 592-596. Greenwood Press, Westport, Connecticut, 937 pp.
- 5136 **LecW** SHOSHANI, Jeheskel. (1997). Little players and big players. *Swara*, 20(3):22-24. **Annotation:** According to Edward O. Wilson, ecosystems are composed of "Little Players and Big Players" with animals and plants coexisting in extremely delicate balance. The Big Players are keystone species, which modify their environment, such as ants, alligators, sea otters, rhinos, and elephants, and many animals that share this environment benefit from these changes. Conserving a habitat large enough to support elephants means conserving many other animals which share the same ecosystem [E/ECM].
- 5137 **BpvB** SHOSHANI, Jeheskel. (1997). What can make a four-ton mammal a most sensitive beast? Subtitled: "It's a nose! It's a hand! It's an elephant's trunk!" *Natural History*, 106(10):36-45. **Annotation:** Illustration by Utako Kikutani, with help of Gary H. Marchant. Trunk of an elephant contains eight muscles (on each side of the trunk, a total of 16 muscles because it is bilateral) with about 150,000 units of muscles, or fascicles [the precise estimated number for the trunk of "Iki" is 148,198 fascicles for the entire proboscis). There are two sets of muscles: external and internal. The external set is composed of: (1) maxillo-labialis, (2) pars rimana, (3) pars supra-labialis, (4) naso-labialis, and (5) nasalis. The internal set is composed of: (6) rectus nasi, (7) transversus nasi [new name], and (8) septum nasi. Note: the photograph with the two elephants on p. 44 is upside down; see correction in *Natural History*, 107(2):6; cf. Reference no. 3476 [JS/ECM].
- 5138 **BgjB** SHOSHANI, Jeheskel. (1998). Elephants. In *Encyclopedia of mammals*, second edition (ed. Edwin Gould, and George McKay; D. Kirshner, illustrator), pp. 167-173. Academic Press, New York, 240 pp. [First edition 1990 as "Encyclopedia of animals: mammals", Gallery Books, New York, 240 pp.].
- 5139 **+gvB** SHOSHANI, J[eheskel]. (1998). Elephants. In *McGraw-Hill's 1998 Yearbook of Science & Technology* (ed. Sybil P. Parker), 112-116. McGraw-Hill, New York, 474 pp.
- 5140 **\*vaU** SHOSHANI, Jeheskel. (1998). Understanding proboscidean evolution: a formidable task. *Trends in Ecology & Evolution*, 13(12):480-487. **Annotation:** Summary of proboscidean evolution, recent findings, including coevolution of infrasonic communication and ability to store water in the pharynx. Erratum: on page 482, Table 1, five lines from bottom of entries of taxa — authorship for Loxodontini should be Osborn, 1918, not Kalandadze and Rautian, 1992 [ECM].
- 5141 **BaqB** SHOSHANI, Jeheskel (compiler). (2000). Items passed through elephants' digestive systems and a warning. *Elephant*, 2(4):77.
- 5142 **BhqB** SHOSHANI, Jeheskel, with comments by DUDLEY, Joseph P. (2000). The elephant pharyngeal pouch — was the mystery resolved? *Elephant*, 2(4):75.
- 5143 **BbpB** SHOSHANI, Jeheskel and EISENBERG, John F. (1992). Intelligence and survival. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 134-137. Rodale Press, Emmaus (Pennsylvania), 240 pp. **Annotation:** *Loxodonta africana*, *Elephas maximus*, behavior, interspecific-relations, learning, brain, development, altruism, play, grooming, memory [BDA].
- 5144 **+veB** SHOSHANI, Jeheskel and EISENBERG, John F. (1995). Evolution of elephants and future outlook for survival. *Abstracts, The Wildlife Society, Second Annual Conference*, Portland, Oregon, USA, September 12-17, 1995, p. 124.
- 5145 **\*evU** SHOSHANI, Jeheskel and FISHER, Daniel C. (1992). Extinction of the elephant's "ancestors". In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 64-65. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** Major possible causes for extinction: habitat changes, interspecific competition, specialization, generation time, and overhunting by

- Paleoindians [JS].
- 5146 LgcB SHOSHANI, Jeheskel and KAHL, M. Philip. (1998). A recap of African elephant research and conservation in historical perspective. In National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), pp. 53-74. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp. **Annotation:** Includes annotated literature cited. Erratum: on page 55 the scientific name of the forest African elephant is designated as "*Loxodonta cyclotis*"; it should be written "*Loxodonta cyclotis* (Matschie, 1900) after Groves *et al.*, 1993". Explanation: In 1900 Matschie named the Forest African Elephant "*E[lephas] cyclotis*" designating it a new species. Groves *et al.* (1993) provided evidence for distinctiveness of forest elephant from savanna elephant, suggested upgrading it from a subspecies (as was widely accepted in post 1900 literature) to species level. Since Matschie was first to designate it as new species, he receives the credit in parentheses, even though the name changed [ECM/CPG].
- 5147 \*avU SHOSHANI, Jeheskel and KAMIYA, Hidetoshi. (1992). Specific behaviors of Miocene gomphotheres and amebelodontids (Mammalia, Proboscidea) interpreted from grooves on their tusks. Journal of Vertebrate Paleontology, Abstracts of Papers, Volume 12, Supplement to Number 3:52A.
- 5148 \*avU SHOSHANI, Jeheskel and MCKENNA, Malcolm C. (1991). *Hemimastodon crepusculi*: is it a proboscidean, an artiodactyl, or Ungulata *incertae sedis*? Journal of Vertebrate Paleontology, Abstracts of Papers, Volume 11, Supplement to Number 3:55A.
- 5149 \*vwU SHOSHANI, Jeheskel and MCKENNA, Malcolm C. (1998). Higher taxonomic relationships among extant mammals based on morphology, with selected comparison of results from molecular data. Molecular Phylogenetics and Evolution (Special Issue), 9(3):572-584, plus seven appendices on the website (<http://www.idealibrary.com>). **Annotation:** Morphological, molecular data evidence of affinity between Proboscidea and Sirenia; Hyracoidea is next most closely related taxon [SKB].
- 5150 LcuW SHOSHANI, Jeheskel and ORENSTEIN, Ronald. (1994). CITES at the crossroads. Swara, 17(5):12-13. **Annotation:** Differing views of range states in Africa, problems enforcing trade legislation commodity like elephant ivory on international scale. Challenges CITES faces at 1994 meeting, review of 1992 meeting [ID-H/M&DR].
- 5151 BajB SHOSHANI, Jeheskel and SHOSHANI, Sandra L. (1992). What is an elephant? In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 14-15. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London.
- 5152 +vaB SHOSHANI, Jeheskel and TASSY, Pascal. (1992). Classifying elephants. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 22-23. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London.
- 5153 +gvB SHOSHANI, Jeheskel and TASSY, Pascal (eds). (1996). The Proboscidea: evolution and palaeoecology of elephants and their relatives. Oxford University Press, 472 pp. **Annotation:** Though only two elephant species remain today, there were about 162 species and subspecies of Proboscidea, one of the great mammalian orders of the Cenozoic. This is first complete treatise on evolution and palaeoecology of proboscideans published in fifty years. Reviewed 1997 in "Journal of Mammalian Evolution", 4(2):145-146 (Reference no. 2731); 1997 in "Science", 276:46-7 (Reference no. 4335); 1998 in "The Quarterly Review of Biology", 73(2):197 (Reference no. 5641) [SKB/MCM]. Errata and Corrigenda are given on page 107 in this issue of "Elephant" [ECM].
- 5154 +vjB SHOSHANI, Jeheskel and TASSY, Pascal. (1996). Summary, conclusions, and a glimpse into the future. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 335-348. Oxford University Press, 472 pp. **Annotation:** Proboscideans, *Loxodonta africana*, *Elephas maximus*, ecology, evolution, systematics, extinction, distribution, morphology, anatomy, dwarf proboscideans, islands, human relations, size, teeth [MCM/SKB].
- 5155 +vwB SHOSHANI, Jeheskel and TASSY, Pascal. (1996). Taxonomy, classification, and biogeography of Proboscidea. Journal of Vertebrate Paleontology, Abstracts of Papers, Volume 16, Supplement to Number 3:65A.
- 5156 BavB SHOSHANI, Jeheskel, GOLENBERG, Edward M., and YANG, Hong. (1998). Elephantidae phylogeny: morphological versus molecular results. Acta Theriologica, Supplement 5:89-122. **Annotation:** Corroborates previous results that Asian elephant (*Elephas*) and mammoth (*Mammuthus*) are more closely related to each other than either is to the African elephant (*Loxodonta*). *Mammuthus* is fastest evolving taxon, whereas *Loxodonta* is slowest. Examines importance of using outgroup comparisons. Erratum: on page 99, subfamily Elephantinae should include *Primelephas* as shown in Table 1, page 93 [JS].
- 5157 LiaW SHOSHANI, Jeheskel, HILLMAN, J. C., and WALCEK, J. M. (1987). "Ahmed", the logo of the Elephant Interest Group: encounters in Marsabit and notes on Ahmed's model and skeleton. Elephant, 2(3):7-32.
- 5158 \*vaU SHOSHANI, Jeheskel, MCKENNA Malcolm C., and BELL, Susan K. (1996). *Morillia*: subgenus or genus? Journal of Vertebrate Paleontology, Abstracts of Papers, Volume 16, Supplement to Number 3:65A.
- 5159 \*avU SHOSHANI, Jeheskel, SAVAGE, Robert J. G., and WEST, Robert M. (1989). A new species of *Barytherium* (Mammalia, Proboscidea) from Africa, and a discussion of early proboscidean systematics and paleoecology. Abstracts of Papers and Posters Fifth International Theriological Congress, Rome, 22-29 August 1989, Volume I:160.
- 5160 LwcW SHOSHANI, Jeheskel, HAGOS, Yohannes, and YACOB, Yohannes Ifer. (2000). Observations on elephant habitat and conservation of elephants in Eritrea. Elephant, 2(4):14-19. **Annotation:** Confined to a small area, about 100 by 50 km, the elephants in Eritrea are one of the northernmost populations in Africa, especially vulnerable because they appear genetically isolated and small number renders them a non-viable population. Conservation efforts are outlined. Editors' note: In Eritrea, first names, rather than second/last names, are used for citation of authorship. Family names as commonly employed by some nationalities are not used; instead, fathers' first names are employed as second names for sons and daughters [ECM/JS].
- 5161 +avB SHOSHANI, Jeheskel, AGNEW, Dalen, WATSON, Gary, MARCHANT, Gary H., and MARSAC, Eleanor C. (1997). The pharyngeal pouch: a unique receptacle in the throat of an elephant. In Proceedings of the 23rd National Conference of the American Association of Zoo Keepers, Inc., held in Detroit, Michigan, October 6-10, 1996, pages 14-25. American Association of Zoo Keepers, Inc., 162 pp. **Annotation:** A function of the pharyngeal pouch, supported by the hyoid apparatus, is to store water for use in times of stress. We estimate an adult African elephant's pouch holds nearly four liters (about one gallon). Belief is that water is not retrieved from the stomach because a large amount of liquid is involved, and the liquid sprayed is almost clear and does not include stomach contents. Hyoid apparati of extinct proboscideans reveal structures similar to those of the living elephants. These structures and associated phys-

- iological adaptations probably helped proboscideans/elephants to survive during periods of drought over millions of years [JS/ECM].
- 5162 BpaB SHOSHANI, Jeheskel, RASMUSSEN, Lois E. L., KUPSKY, William J., AGNEW, Dalen W., and BORSZCZ, George S. (2000). Do elephants feel pain and if so, how do we know this? *Elephant*, 2(4):48-52.
- 5163 \*veU SHOSHANI, Jeheskel, WEST, Robert M., COURT, Nicholas, SAVAGE, Robert J. G., and HARRIS, John M. (1996). The earliest proboscideans: general plan, taxonomy, and palaeoecology. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 57-75. Oxford University Press, 472 pp. **Annotation:** Ecology, evolution, systematics, anatomy, teeth [MPK].
- 5164 \*gjU SHOSHANI, Jeheskel, FISHER, Daniel C., ZAWISKIE, John M., THURLOW, Steven J., SHOSHANI, Sandra L., BENNINGHOFF, William S., and ZOCH, Frank H. (1989). The Shelton Mastodon Site: a multidisciplinary study of a late Pleistocene (Two Creekan) locality in southeastern Michigan. *Contributions from the Museum of Paleontology, The University of Michigan*, 27(14):393-436. **Annotation:** Floristic and faunistic of late Pleistocene and early Holocene elements at this site were carbon dated giving a range of  $12,810 \pm 260$  (on wood) to  $9,490 \pm 295$  (on cones of red pine); some of these dates were obtained after this paper was published. Remains of coniferous trees were stratigraphically lower and older than remains of deciduous trees. Animal remains included mollusks, insects, fishes, amphibians, reptiles, birds, and mammals [insectivores, rodents, lagomorphs, artiodactyls (especially Scott's moose, *Cervalces scotti*), carnivores, and proboscideans, *Mammot americanum*] [JS].
- 5165 BgjB SHOSHANI, Jeheskel, FOLEY, Charles, *et al.* (compilers). (2000). Frequently asked questions about elephants. *Elephant*, 2(4):78-87.
- 5166 BmgC SHOSHANI, Sandra Lee (compiler). (1987). Captive elephant population of North America: 1987. *Elephant*, 2(3):73-75. **Annotation:** Includes a table of known births and deaths in North America since 1980. Total captive elephants in North America: 689 [JS].
- 5167 BnzB SHOSHANI, Sandra L. (1992). Famous elephants. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 168-171. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** Includes "Old Bet", "Columbia", "Jumbo", "Jap", "Iki", "Motty", "Ahmed", and "Raja" [JLP].
- 5168 BmgC SHOSHANI, Sandra Lee (compiler). (2000). Captive elephant population of North America: 1988-1999, and notes on other captive elephants elsewhere in the world. *Elephant*, 2(4):63-71. **Annotation:** Includes a table of known births and deaths in North America from 1988-1999, with additions to 1980-1988 records. Total of captive elephants in the world is 15,007-18,240 (14,259-17,432 Asians, 748-808 Africans), with this breakdown: Africa, 27-40 (7-10 Asians, 20-30 Africans); Asia (excluding Japan) 13,380-16,600 (13,325-16,495 Asians, 55-105 Africans); Japan, 137 (70 Asians, 67 Africans); Australia, 13 (7 Asians, 6 Africans); Central and South America, including Mexico, 29 (15 Asians, 14 Africans); Europe, including Great Britain, Israel and Russia, 826 (509 Asians, 317 Africans); North America 595 (83 males, 512 females) (326 Asians, 269 Africans) [JS].
- 5169 BmqC SHOSHANI, Sandra Lee and SHOSHANI, Jeheskel. (1992). Captive elephant population in North America: a 16-year summary. *The 13th International Elephant Workshop, Atlanta, 1992*, pp. 109-112. Zoo Atlanta, Georgia, 151 pp.
- 5170 LbeW SHREEVE, James. (1987). The gregarious giant. In *Nature: the other earthlings*. Pp. 148-186. MacMillan Publishing, New York, 288 pp. **Annotation:** Companion to PBS TV Series. Ecology of East African elephants, family relations and reproductive aspects. Three parts: section on African and Asian elephants, general ecology, history and ivory trade, herd and social relationships, reproduction, family relations and death specific examples based on research by Moss and Poole in ANP and Iain Douglas-Hamilton in LMNP. See Reference Nos. 2235, 2236 [ID-H/M&DR].
- 5171 EroC SHRESTHA, Sunder Prasad. (1995). Estrous cycle detection, pregnancy diagnosis, circulating levels of vitamin A & E and the role of different nutrients in reproductive performance in Asian elephant (*Elephas maximus*) of Nepal. Ph.D. Dissertation, Texas A & M University, College Station.
- 5172 +avB SHUKER, Karl. (1993). *The lost ark: new and rediscovered animals of the twentieth century*. HarperCollins, London, 287 pp. **Annotation:** Pages 255-6, heads of elephants at Bardia Reserve resemble those of extinct proboscidean called *Stegodon* [ECM].
- 5173 +iuU SHUTE, Nancy. (1992). The lab sleuths who help solve crimes against wild animals. *Smithsonian* (March):40-4, 46, 48-9. **Annotation:** National Fish and Wildlife Forensics Laboratory developed a somewhat reliable system to distinguish between ivories of African and Asian elephants and also among elephantine taxa, including mammoths [ECM].
- 5174 LbpC SHYAN, Melissa R. (1994). Do elephants signal their aggressive intent? *Elephant Managers Association Newsletter*, 5(2):28-30.
- 5175 BtqB SHYAN, Melissa R. (1994). Things to consider when training new behaviors. *The Elephant Managers Association Newsletter*, 5(1):30-33.
- 5176 LbpC SHYAN, Melissa R. (1995). Signals of submissive intent in African elephants. *Journal of the Elephant Managers Association*, 6(1):44-45. **Annotation:** Captivity, behavior, ethology, Indianapolis Zoo (Indiana, USA) [MPK].
- 5177 LbpC SHYAN, Melissa R. (1995). Visual acuity study in progress. *Journal of the Elephant Managers Association*, 6(1):40. **Annotation:** *Loxodonta africana*, captivity, behavior, Indianapolis Zoo (Indiana, USA) [MPK].
- 5178 LrjC SHYAN, Melissa R., DALE, Robert H. I., COLLINS, David, OLSON Deborah, CRITSER, John K., and NOILES, Esther E. (1992). Preliminary findings on vocal, hormonal, and behavioral relationships in captive African elephants. *The 13th International Elephant Workshop, Atlanta, 1992*, pp. 64-76. Zoo Atlanta, Georgia, 151 pp.
- 5179 LgcC SIEGEL, Micki. (1990). Popcorn Park Zoo. *Good Housekeeping* (March), pp. 54, 56. **Annotation:** See Reference nos. 4160, 5821 [ECM].
- 5180 LbmW SIEGISMUND, H. R. and ARCTANDER, Peter. (1995). Structure of African elephant populations. *Journal of Heredity*, 86(6):467-469.
- 5181 LbcW SIKES, Sylvia K. (1992). Memories of African elephants. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 218-225. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** Early elephant research opportunities of author, noting incidents in Nigeria, Kenya, the Lake Chad area, and Uganda [ID-H/M&DR].
- 5182 EedB SILAS, E. G., KRISHNAN NAIR, M., and NIRMALAN, G. (eds). (1989). The Asian elephant: ecology, biology, diseases, conservation and management 1992. *Proceedings of the National Symposium on the Asian elephant held at Kerala Agricultural University, Trichur, India, from 16-19 January, 1989, Kerala*.
- 5183 EcwW SILORI, C. S. and MISHRA, B. K. (1995). Pressure and resource dependency of Masinagudi group of villages on the surrounding elephant habitat. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 270-278. Bombay Natural History Society, Bombay. Oxford

- University Press, 535 pp.
- 5184 EopW SILVA, Indira D. and KURUWITA, Vijitha Y. (1993). Hematology, plasma, and serum biochemistry values in free-ranging elephants (*Elephas maximus ceylonicus*) in Sri Lanka. *Journal of Zoo and Wildlife Medicine*, 24(4):434-439.
- 5185 EopC SILVA, Indira D. and KURUWITA, Vijitha Y. (1993). Hematology, plasma, and serum biochemistry values in domesticated elephants (*Elephas maximus ceylonicus*) in Sri Lanka. *Journal of Zoo and Wildlife Medicine*, 24(4):440-444.
- 5186 BmeB SILVA, Marina and DOWNEY, John A. (eds). (1995). *CRC Handbook of mammalian body masses*. CRC Press, Boca Raton (Florida), 359 pp. **Annotation:** *Loxodonta africana*, *Elephas maximus*; weight, measurements, size; reviewed in "Journal of Mammalogy", 78(3):987-988, 1997. ISBN 0849327903 [MPK].
- 5187 BaiB SIMMELINK, J. W. (1988). Histology of enamel. In *Oral development and histology* (ed. J. K. Avery), pp. 140-151. Decker, Toronto.
- 5188 LcjW SIMMONDS, Mark. (1998). Changing conservation aims — who will represent wildlife? *Oryx*, 32(2):8283. **Annotation:** Biggest threat to wildlife and biodiversity may not be what proportion (if any) can be 'safely' removed, but how we view them. In particular, are animals a resource or something more?" [E/ECM].
- 5189 LcjW SIMMONS, N. (1995). Make room for elephants. *Wildlife Conservation*, 98(4):50-53, 67. **Annotation:** *Loxodonta africana*, conservation, in GNP [MPK].
- 5190 BicW SIMMONS, R. T. and KREUTER, U. P. (1989). Herd mentality - banning ivory sales is no way to save the elephant. *Policy Review*, 50:46-49.
- 5191 LehB SINCLAIR, A. R. E. and ARCESE, P. (eds). (1995). *Serengeti II: dynamics, management, and conservation of an ecosystem*. University of Chicago Press, 666 pp. **Annotation:** "Vegetation dynamics in the Serengeti-Mara ecosystem: the role of elephants, fire, and other factors" [MPK].
- 5192 UiyU SINGER, Suzanne F. (1992). Against all odds. *Biblical Archaeology Review*, 18(2):46-53. **Annotation:** Jerusalem Bible Lands Museum houses a collection of more than 3,000 artifacts (many of ivory), gathered to illustrate or to confirm events and peoples mentioned in the Hebrew Bible [E/ECM].
- 5193 EceW SINGH, Baljit. (1995). Preservation of India's protected areas: a fresh approach. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 177-184. Bombay Natural History Society, Bombay. Oxford University Press, 535 pp.
- 5194 EceW SINGH, K. N. (1995). Asiatic elephants in U. P. (India) status and strategy for conservation. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 32-48. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 5195 EcwW SINGH, Lala A. K. (1995). Sighting trend of elephants in Similipal Tiger Reserve, Orissa. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 424-429. Bombay Natural History Society, Bombay. Oxford University Press, 535 pp.
- 5196 EwmW SINGH, Lala A. K. (1995). Status of elephant in Orissa. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 85-87. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 5197 BtqC SITASUWAN, N., RANGSIYANON, J., TRISONTHI, C., TRISONTHI, P., and SAENWONG, K. (1992). Interactions between domestic elephants and their handlers. *The 13th International Elephant Workshop, Atlanta, 1992*, pp. 139-142. Zoo Atlanta, Georgia, 151 pp.
- 5198 EcwW SIVAGANESAN, N. (1991). Ecology and conservation of Asian elephant with special reference to habitat utilization in Mudumalai Wildlife Sanctuary, Tamil Nadu, South India. D. Phil. Thesis, Bharadhidasan University, Trichy, Tamil Nadu. **Annotation:** Year of publication may be 1992. "...the elephants in the critical microhabitats of thorn forests of Mudumalai Wildlife Sanctuary use browse species heavily during the dry season" [ECM].
- 5199 EncW SIVAGANESAN, N. and JOHNSINGH, A. J. T. (1995). Food resources crucial to the wild elephants in Mudumalai Wildlife Sanctuary, south India. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 405-423. Bombay Natural History Society, Bombay. Oxford University Press, 535 pp.
- 5200 EwmW SIVAGANESAN, N. and KUMAR, Ajith. (1995). Status of feral elephants in Andamans. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 97-119. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 5201 EbnW SIVAGANESAN, N. and SATHYANARAYANA, M. C. (1993). Mortality of trees caused by elephants in Mudumalai Wildlife Sanctuary, South India. Abstracts, p. 19. International seminar on the conservation of the Asian elephant, Mudumalai Wildlife Sanctuary, 13-18 June 1993, Bombay Natural History Society, Bombay.
- 5202 EbcW SIVAGANESAN, N. and SATHYANARAYANA, M. C. (1995). Tree mortality caused by elephants in Mudumalai Wildlife Sanctuary, south India. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 314-330. Bombay Natural History Society, Bombay. Oxford University Press, 535 pp.
- 5203 EcjW SIVASUBRAMANIYAN, G. (1995). Role of elephants in Sujalkuttai-Bannari corridor in Sathyamangalam Forest Division, Tamil Nadu. M.Sc. thesis submitted to A. V. C. College, Mayiladuthurai, South India.
- 5204 BwcW SIVASUBRAMANIYAN, G. and SIVAGANESAN, N. (1996). Role of elephants in Sujalkuttai-Bannari corridor in Sathyamangalam Forest Division, Tamil Nadu, southern India. *Gajah*, 15(January 1996):9-27. **Annotation:** In African and Asian forests' ecosystem, elephants have major role shaping habitats: eating canopy vegetation, stripping bark and uprooting trees. Has significance for other faunal communities, especially in seed dispersal. Study made to determine vegetation composition and measure browse plants available to elephants, assess extent of height alteration on various plant species induced by elephants, determine impact on various size classes of food trees, identify plant species dispersed through dung and find usage pattern of other fauna in elephant foraging niches [ERD].
- 5205 LgjW SKINNER, J. D. and SMITHERS, R. H. N. (1990). *The mammals of the southern African subregion* (revised edition). University of Pretoria, Pretoria, 771 pp.
- 5206 LbcW SLY, L. (1994). Murder on the veldt. *Pittsburgh Post-Gazette*, [4 October]:p. A-4. **Annotation:** Translocated-bull elephants killing [white] rhinos in PNP [MPK].
- 5207 BcjW SMITH, D. A. (1989). Elephants and man: a big problem. *Canadian Veterinary Journal-Revue Veterinaire Canadienne*. 30(10):785-787.
- 5208 LvjW SMITH, [A. K.] Kes Hillman. (1990). Further notes on pygmy and forest elephants. *Pachyderm*, 13:47-48.
- 5209 LthC SMITH, [A. K.] Kes Hillman. (1992). The Elephant Domestication Centre of Africa. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 152-154. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** History

- of elephant domestication center in GaNP. Situation circa 1992; suggests that opportunity for tourists to ride an elephant within National Park area is particularly valuable in providing revenue to sustain Park [ID-H/M&DR]. See Reference nos. 1675, 3253, 3539, 3800, 3801, 3951, 5631, 5632 [ECM].
- 5210 LcwW SMITH, [A. K.] Kes Hillman. (1995). Garamba National Park. Swara, 18(4):18-22.
- 5211 LmwW SMITH, A. K. Kes [Hillman], ATALIA, M., and WATKIN, J. (1993). Pachyderms and threats increasing in Garamba National Park, Zaire. Species, 20:30-32. **Annotation:** A May 1993 aerial census counted 8,705 elephants in the Park and 178 in the Domaines de Chasse area. In 1976 a similar survey estimated 22,000 animals. Heavy poaching reduced the number to 7,700 in 1983. Poaching began to be brought under control after the present project commenced in 1984 but there was a time lag in the recovery of the population and numbers actually dropped to 4,000-4,500 [ID-H/M&DR].
- 5212 LcuW SMITH, A. K. K[es] Hillman, DE MERODE, E., NICHOLAS, A., BULS, B., and NDEY, A. (1995). Factors affecting elephant distribution at Garamba National Park and surrounding reserves, Zaire, with a focus on human-elephant conflict. Pachyderm, 19:39-48. **Annotation:** Preliminary results from investigations on background of human-elephant conflict in GaNP. Concentrations of elephant and fires caused loss of woody vegetation within Park; animals started to frequent adjacent areas. Mapping vegetation and animal distribution plus radio tracking and interviews with people in adjacent areas and long term staff provided significant amount of information suggesting conflict is minimal and crop raiding by elephants is rarely done except when agricultural land lies in pathway to seasonal ranges or general population movement [ID-H/M&DR].
- 5213 BapB SMITH, Kathleen K. and KIER, William M. (1989). Trunks, tongues, and tentacles: moving with skeletons of muscle. American Scientist, 77:28-35. **Annotation:** Illustrations of trunk musculature and cross-sections of parts of squid tentacle, cat tongue, elephant trunk, nautilus tentacle, and lizard tongue. "In many organs, muscles not only produce movement but provide a unique form of skeletal support" [JS].
- 5214 BqtC SMITH, Martin. (1988). Port Lympne's elephant facility. In Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988, pp. 54-57. Jacksonville Zoological Park, Florida, 145 pp.
- 5215 BumW SMITH, S. J. (ed.). (1989). Rowland Ward's records of big game (22nd edition). Rowland Ward Publications, San Antonio, Texas, 796 pp. **Annotation:** Asian elephants, p. 698; African elephants, pp. 699-702 [MPK].
- 5216 LbgW SMITH, S. J. (1992). The hunter and the go-away bird. Stephen J. Smith & Associates, Johannesburg, 274 pp. **Annotation:** *Loxodonta africana*, behavior, parenting, poaching, hunting, mortality, locomotion, social relations, intelligence, memory.
- 5217 BuiW SMITH, S. J. (ed.). (1992). Records of big game (23rd edition). Rowland Ward Publications, San Antonio, Texas.
- 5218 LzgW SMITH, Wilbur. (1991). Elephant song. Macmillan, London, 451 pp. **Annotation:** Fiction; takes place in Zimbabwe [ECM].
- 5219 LapB SMUTS, Malie M. S. (1990). The osteology of the thoracic limb of the African elephant (*Loxodonta africana*): preliminary findings. Selected abstracts of papers presented at the 20th Annual Congress of the Anatomical Society of Southern Africa, 1990. South African Journal of Science, 86(3):160.
- 5220 LapB SMUTS, Malie M. S. and BEZUIDENHOUT, A. J. (1993). Osteology of the thoracic limb of the African elephant (*Loxodonta africana*). Onderstepoort Journal of Veterinary Research, 60(1):1-14. **Annotation:** Clearly written and illustrated; cf. Reference nos. 2890, 5221, 5540 [JS].
- 5221 LapB SMUTS, Malie M. S. and BEZUIDENHOUT, A. J. (1994). Osteology of the pelvic limb of the African elephant (*Loxodonta africana*). Onderstepoort Journal of Veterinary Research, 61(1):51-66. **Annotation:** Clearly written and illustrated; cf. Reference nos. 2890, 5220, 5540 [JS].
- 5222 LwcW SNELSON, D. (1997). Miombo made magical: Kasungu National Park. African Wildlife News, 32(3):6. **Annotation:** *Loxodonta africana*, dambo, Brachystegia, population, habitat, in Malawi.
- 5223 LbcW SNYMAN, A. and NEL, M. (1993). Tell Mommy I love you. Personality, 16 April 1993:8-9. **Annotation:** Killing of German tourist by a young bull [previously translocated from KNP] in PNP; it first destroyed their car [MPK].
- 5224 \*bwU SOFFER, O[lga]. (1993). Upper Paleolithic adaptations in central and eastern Europe and man/mammoth interactions. In From Kostenki to Clovis, upper Paleolithic — Paleo-Indian adaptations (ed. O. Soffer and N. D. Praslov), pp. 31-49. Plenum Press, New York, 334 pp.
- 5225 LuiW SOMMERLATTE, Hilary. (1988). 'Poachers' or 'Keepers of the game'? Swara, 11(4):22-24. **Annotation:** Zimbabwe's CAMPFIRE program which gives local rural people the right to own and manage natural resources on their land [JS].
- 5226 LugW SOMMERLATTE, Hilary. (1991). A case for the re-introduction of safari hunting in Kenya. Swara, 14(4):10-13. **Annotation:** Wildlife utilization without safari hunting will handicap tourist industry [PFH/JMH].
- 5227 \*avU SONDAAR, P. Y. (1993). De *Stegodon* van Flores. Cranium, 10(1):47-48.
- 5228 \*vhU SONDAAR, Paul Y., DERMITZAKIS, Michael D., and DE VOS, John. (1996). The paleogeography and faunal evolution of the land mammals of Crete. In Pleistocene and Holocene fauna of Crete and its first settlers (ed. David S. Reese), pp. 61-68. Prehistory Press, Madison (Wisconsin), 422 pp.
- 5229 \*wvU SONDAAR, P. Y., AZIZ, F., VAN DEN BERGH, G., and HUSSAIN, S. T. (1989). The insular proboscideans of S. E. Asia. Abstracts of Papers and Posters Fifth International Theriological Congress, Rome, 22-29 August 1989, Volume I:161-162.
- 5230 BcqC SORENSEN, David. (1991). Elephant management: moving Lota and public scrutiny. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 31-34. Burnet Park Zoo, Syracuse, 161 pp.
- 5231 LceW SOURNIA, Gerard. (1990). The problem of elephant populations and their habitat in West Africa: situation and major proposals for action. In Regional perspectives and situation regarding elephant conservation and the ivory trade, IUCN, 129-143. **Annotation:** IUCN as background document for ministerial level donor's meeting called by Government of France, Paris, April 1990. Describes elephant populations and conservation in West Africa. Initiatives and proposals for future development and conservation. Proposes developing coordinating mechanism for conservation on regional basis [ID-H/M&DR].
- 5232 LcjW SOURNIA, Gerard. (1993). Des éléphants et des hommes, étude de cas: les populations d'éléphants d'Alfakoara (Nord-est du Bénin). Pachyderm, 17:59-63 [in French]. **Annotation:** Plan to share a water resource between a small herd of elephants and villagers and



- their domestic stock. The village of Alfakoara is situated in northeastern Benin near the border with Niger. The elephants consisting of several dozen of various ages visit a depression near the village on a daily basis. Except for the dry months of January to March, the depression contains sufficient water for both the villagers and the elephants who have developed a tolerance of each other and a sharing of the water resource. The article outlines a program to deepen and develop the depression and built a viewing stand for eco tourism development [ID-H/M&DR].
- 5233 LcjW SPAMER, C. (1994). Reviving Maputo Elephant Reserve. On Track (South Africa) Summer:36-37. **Annotation:** *Loxodonta africana*, parks, poaching, Mozambique [MPK].
- 5234 LkwW SPINAGE, Clive A. (1990). Botswana's problem elephants. Pachyderm, 13:14-19. Also published in 1992 in The Rhino & Elephant Journal, 6:16-23. **Annotation:** Chobe/Moremi area of northern Botswana historically favored by elephants. Populations increased with little disturbance. But destruction seen to woody vegetation along Chobe River riparian strip unless elephants are reduced, excessive destruction and loss of canopy cover in region are inevitable. In the eastern sector, two populations occupy areas near the Zimbabwe border. One group marauds agricultural crops in a relatively densely populated area north of Selebi Phikwe, the other group in the Tuli Block increasingly conflicts with surrounding farmland. Consequences from uncontrolled growth in elephants to habitat could be catastrophic [ID-H/M&DR].
- 5235 LkwW SPINAGE, Clive A. (1991). Botswana's problem elephants. Pachyderm, 14:46.
- 5236 BgcB SPINAGE, Clive A. (1994). Elephants. T. & A. D. Poyser, London, xvi + 319 pp. Illustrated by Larry Norton. **Annotation:** Author in Africa 30 years. Evolution, taxonomy and distribution, anatomy, physiology, reproduction and growth, longevity, diseases and parasites, social behaviour, ecology, population dynamics, tusks and the ivory trade, and domestication. Review by Douglas Palmer, "BBC Wildlife", 1995, 13(6):79. Review by Robert H. I. Dale, "JEMA", 6(3):75-6 [MPK].
- 5237 LavB SPINAGE, Clive A. (1996). Letter to the editor: African elephants and European rabbits: a spurious correlation? Pachyderm, 21:12. **Annotation:** Author note rabbits on his property ate shrubs and trees dying from drought, rather than healthy ones. Believes lack of phenol, a plant defense, may be detected by rabbits; a parallel may exist between behavior of European rabbits and elephants in Africa that, in drought conditions, concentrate on weak or dying trees [E/ECM].
- 5238 BgqB SPOONER, Neil G. (ed.). (1990). Proceedings of the Fourth Elephant Keepers Workshop (Port Lympne Zoo Park, England), 35 pp. Published by Port Lympne Zoo Park, Port Lympne, England.
- 5239 ErpC SPOONER, Neil G. (1994). A report on the Thi-Hi-Way. In Proceedings of the Seventh U.K. Elephant Workshop, hosted by Cricket St Thomas Wildlife Park, Somerset, 20th October 1993 (ed. N. G. Spooner and J. A. Whitear), pp. 122-134. Published by North of England Zoological Society.
- 5240 EdqC SPOONER, Neil G. (1997). Karha's life-saving operation. Zoo Life, Summer, 1997:12-13. **Annotation:** "Karha", a baby Asian elephant at Chester Zoo, England, underwent a seven and a half hour operation to remove a 5 cm long, 100 gm stone wedged about 50 cm inside her esophageal tract, totally blocking entry into the stomach. See Reference no. 4879 [ECM].
- 5241 ErqC SPOONER, Neil G. (1998). Birth at the North of England Zoological Society. Journal of the Elephant Managers Association, 9(2):96-98. **Annotation:** Calf born to Asian elephant cow, "Thi", and bull, "Chang", December 31, 1998 [ECM].
- 5242 BgqB SPOONER, Neil G. and SUTTON, Michael A. C. (eds). (1988). Proceedings of the First British Elephant Workshop, 32 pp. Published by North of England Zoological Society, Chester, England.
- 5243 BgqC SPOONER, Neil G. and WHITEAR, J. A. (1994). Herd census: U.K. Asian elephant details-February 1994, U.K. elephants in circuses-February 1994. In Proceedings of the Seventh U.K. Elephant Workshop, hosted by Cricket St Thomas Wildlife Park, Somerset, 20th October 1993 (ed. N. G. Spooner and J. A. Whitear), pp. 119-121. Published by North of England Zoological Society, Chester, England.
- 5244 BgqB SPOONER, Neil G. and WHITEAR, J. A. (eds). (1994). Proceedings of the Seventh U.K. Elephant Workshop, hosted by Cricket St Thomas Wildlife Park, Somerset, 20th October 1993, 134 pp. Published by North of England Zoological Society.
- 5245 BgqB SPOONER, Neil G. and WHITEAR, J. A. (eds). (1995). U.K. Elephant Workshop Proceedings 1994, 108 pp. Published by North of England Zoological Society, Chester, England.
- 5246 EmaB SREEKUMAR, K. P. and NIRMALAN, G. (1989). Estimation of body weight in Indian elephants, *Elephas maximus indicus*. Veterinary Research Communications, 13(1):3-9.
- 5247 EoaB SREEKUMAR, K. P. and NIRMALAN, G. (1989). Mineral composition of elephant tusk. Indian Journal of Animal Sciences, 59(12):1561-1562.
- 5248 EoaB SREEKUMAR, K. P. and NIRMALAN, G. (1989). Mineral status in the blood of Indian elephants. Indian Journal of Animal Sciences, 59(10):1253-1258.
- 5249 EoaB SREEKUMAR, K. P. and NIRMALAN, G. (1990). Certain physical characteristics of the blood of Indian elephants (*Elephas maximus indicus*). Indian Journal of Animal Sciences, 60(9):1061-1064.
- 5250 EmaB SREEKUMAR, K. P. and NIRMALAN, G. (1990). Estimation of the total surface area in Indian elephants (*Elephas maximus indicus*). Veterinary Research Communications, 14(1):5-17.
- 5251 LwjW STALMANS, Marc and ANDERSON, Jeremy L. (1992). The forest elephants of Togo. African Wildlife, 46(2):71-75. **Annotation:** Forest elephants in Fosse aux Lions reserve are outside their range. Located in a depression between two sandstone escarpments, the area's climax vegetation is lush than expected in a generally dry savanna; the reserve itself has a swamp. About 100 elephants live between Fosse aux loins and the Ghanaian border. Heavy poaching in Ghana led to an influx that came via a corridor created by the swamp along the Koulougana River [ID-H/M&DR].
- 5252 EgqC STANDLEY, Stephen. (1990). New elephant facility at Cricket St Thomas. Proceedings of the Fourth Elephant Keepers Workshop, Port Lympne Zoo Park, United Kingdom, pp. 15-17.
- 5253 LceW STANLEY PRICE, Mark R. (1997). Valuing elephants: the voice for conservation. Swara, 20(3):29-30. **Annotation:** From a utilization perspective, an elephant is worth the sum of its ivory, hide, meat, feet and tail hairs. They also have immense value as ecological agents, a

- value just as real though harder to articulate or measure [E/ECM].
- 5254 +vjB STANLEY, Steven M. (1987). *Extinction*. Scientific American Books, New York, 242 pp.
- 5255 LicW STANTON, L. (1993). When the rains didn't come: drought in Gona-re-Zhou. *Africa - Environment & Wildlife*, 1(1):45-51. **Annotation:** *Loxodonta africana*, mortality, culling, ecology, habitat-alteration, translocation [MPK].
- 5256 BiyB ST AUBYN, Fiona (ed.). (1987). *Ivory: an international history and illustrated survey*. Harry Abrams, New York, 352 pp. **Annotation:** Designed by Harry Green. Also published: (1987) "Ivory: a History and Collector's Guide". Thames & Hudson, London. Directed at ivory collectors; a sumptuous, detailed account of man's infatuation with ivory [MKM].
- 5257 BtqB STEELE, Bucky. (1992). Training elephants. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 155-157. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** *Loxodonta africana*, *Elephas maximus*, learning, reproduction, behavior [MPK].
- 5258 BqtC STEELE, Bucky. (1998). *Everything you always wanted to know about elephants, but were afraid to ask*. Applewhite Publishing, Lake of the Pine [Texas (self-published)], 357 pp. **Annotation:** 80 pages of color and black and white scanned photographs. Contains humor, history, and countless stories about man and animal that has become backbone of two industries: zoo and circus. Includes typographical errors and some information that could be misinterpreted [E/ECM].
- 5259 \*evU STEELE, D. G. and CARLSON, D. L. (1989). Excavation and taphonomy of mammoth remains from the DUEWALL-NEWBERRY site, Brazos County, Texas. In *Bone modifications* (ed. R. Bonnicksen and M. Sorg), pp. 413-430. Center for the Study of the First Americans, Orono, Maine, total pages not provided.
- 5260 \*ahU STEENSMA, Karel. (1990). Onderzoek in de Siwaliks van Noord-Pakistan. *Cranium*, 7(1):9-19. **Annotation:** American/Dutch/Pakistan team is carrying out paleontological fieldwork in Siwaliks, in an area called Mangla-Samwal Anticline. Lower boundary of *Elephas planifrons* Interval-Zone, which was set by Barry *et al.* (1982) at 2.9 my BP is tentatively dated around 3.4 my; *E. planifrons* Interval-Zone can probably be subdivided on basis of entrance of *E. hysudricus*, cervids and probably *Equus* at around 2.7 my BP, in *E. planifrons* Interval-Zone and *E. hysudricus* Interval-Zone [E/ECM].
- 5261 LucW STEPHENSON, Peter J. and NEWBY, John E. (1997). Conservation of the Okapi Wildlife Reserve, Zaïre. *Oryx*, 31(1):49-58. **Annotation:** Pages 51-2 discuss illegal hunting of African forest elephant (*Loxodonta africana cyclotis*). Poaching will continue to be major problem because of lack of accurate information on level and impact of this activity, and continued logistical difficulties facing IZCN in controlling it [E/ECM].
- 5262 LbnW STERBA, J. P. (1989). How do you teach Dumbo not to eat the coconut farm? *The Wall Street Journal*, [27 Nov 89]: A1, A4.
- 5263 LjbW STEVENS, A. J. (1993). In search of the desert elephant. *Getaway*, 90-93. **Annotation:** Adaptations made by the remnant elephant population living in northwest Namibia. Traveling at night up to 60 kilometers to secret water holes and fresh vegetation, low birth rate and taking only a portion of vegetation from each plant to limit plant damage [ID-H/M&DR].
- 5264 \*vgU STEVENS, Jane. (1993). Facing the dragons. *International Wildlife*, 23(3):30-35. **Annotation:** See Reference no. 3280 [ECM].
- 5265 LcjW STEWART, Douglas. (1996). Creatures wild and wonderful thrive at a living lab in Kenya. *Smithsonian*, 27(2):104-113. **Annotation:** Mpala Research Centre's pristine environment to study how humans and wildlife can coexist [E/ECM].
- 5266 LuiW STILES, Daniel. (1993). Sustainable development in tropical forests by indigenous peoples. *Swara*, 16(5):24-27.
- 5267 LdoC STILL, J., RAATH, Jacobus P., and MATZNER, Laura. (1996). Respiratory and circulatory parameters of African elephants (*Loxodonta africana*) anaesthetised with etorphine and azaperone. *Journal of the South African Veterinary Association*, 67(3):123-127.
- 5268 \*avU STOCK, C. (1992). Rancho La Brea: a record of Pleistocene life in California (7th edition, revised by J. M. Harris). *Natural History Museum of Los Angeles County, Science Series*, No. 37:1-113.
- 5269 LgjW STOFFEL-WILLAME, M. and STOFFEL-WILLAME, Y. (1998). Elephants of the rainforests. *Africa - Environment & Wildlife*, 6(1): 30-37. **Annotation:** *Loxodonta [africana] cyclotis*, general, systematics, morphology, social-relations, ecology, behavior, measurements, weight, Congo, Nouabale-Ndoki, Mbeli Bai, CAR, Dzanga-Ndoki, Dzanga Bai, Gabon, Cameroon, Equatorial Guinea [MPK].
- 5270 LapB STONE, Jonathan and HALASZ, Paul. (1989). Topography of the retina in the elephant *Loxodonta africana*. *Brain Behavior and Evolution*, 34(2):84-95. **Annotation:** Distribution of neurones in ganglion cell layer of retina of infant African elephant. Features of the eye, its size, orientation and fundal pigmentation [ECM].
- 5271 \*rpU STONE, Richard. (1999). Cloning the woolly mammoth. *Discover*, April:56-63. **Annotation:** Japanese scientist's vision to find mammoth sperm with genes still intact and use it to fertilize living elephant egg [E/ECM].
- 5272 \*vjU STONE, Richard. (1999). Siberian mammoth find raises hopes, questions. *Science*, 286(5411):876-877. **Annotation:** See Reference nos. 3969, 5350 [JS].
- 5273 LcwW STOREY, Patty F. (1994). Development vs conservation: the future of the African elephant. *William and Mary Journal of Environmental Law*, 18(2):375-399.
- 5274 BqgC STOUT, Timothy. (1988). Planning for the future. In *Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988*, pp. 22-25. Jacksonville Zoological Park, Florida, 145 pp.
- 5275 BtqC STOUT, Timothy. (1989). Is elephant training a relic from the past — can it exist in today's environment? *Proceedings of the Annual Elephant Workshop*, 10:29-32.
- 5276 LqgC STOWBRIDGE-GOUGH, Patty and DAVIS, Roy. (1992). An introduction to The African Elephant Research and Survival Ranch. *The 13th International Elephant Workshop, Atlanta, 1992*, pp. 39-42. Zoo Atlanta, Georgia, 151 pp.
- 5277 LdoC STRASSBURGER, F. G. W., NEL, P. P. C., and NEL, M. M. (1990). The light transmission electron microscopic structure of the adrenals of a non-pregnant, non-lactating African elephant cow (*Loxodonta africana*). Abstract. *South African Journal of Science*, 86(3):165-166.
- 5278 LmwW STROMEYER, Karl A. K. and EKOBO, Atanga. (1992). The distribution and number of forest dwelling elephants in extreme southeastern Cameroon. *Pachyderm*, 15:9-14. **Annotation:** Forests of southeastern Cameroon may contain some of largest and least distributed populations of rain forest mammals in Central Africa, but there is no effective protected status and wildlife is increasingly threatened by poorly conceived logging practices and excessive hunting. During ground transect studies in three areas within region, intended to pro-

- pose boundaries of a series of regional reserves and to provide data on number and distribution of elephants, a density of 4.64 elephants per sq. km was noted in one, Lake Lokeke area. Recommendations include establishment of a minimum of two protected areas in Molondou Subdivision; one encompassing general area of Lake Lobeke and Mongokele study sites and other on proposed Boumba Bek Forest Reserve [ID-H/M&DR].
- 5279 LjwW STRUHSAKER, Thomas T. (1997). Elephants. In Ecology of an African rain forest: logging in Kibale and the conflict between conservation and exploitation, pp. 272-294. University Press of Florida, Gainesville, xxii + 434 pp.
- 5280 LcwW STRUHSAKER, Thomas T., LWANGA, Jeremiah S., and KASENENE, John M. (1996). Elephants, selective logging and forest regeneration in the Kibale Forest, Uganda. Journal of Tropical Ecology, 12(1):45-64.
- 5281 \*evU STUART, A. J. (1991). Mammalian extinctions in the late Pleistocene of northern Eurasia and North America. Biological Reviews, 66:453-562.
- 5282 \*vwU STUART, A. J. (1993). The failure of evolution: late Quaternary mammalian extinctions in the Holarctic. Quaternary International, 19:101-107.
- 5283 LcjW STUART, Simon. (1992). Agony over Africa's big mammals. IUCN Bulletin, 23(2):27-28.
- 5284 BcwB STUART, Simon. (1992). The Kyoto criteria. IUCN Bulletin, 23(2):31.
- 5285 LjwW STUART-HILL, G. C. (1992). Effects of elephants and goats on the Kaffrarian succulent thicket of the eastern Cape, South Africa. Journal of Applied Ecology, 29(3):699-710. **Annotation:** Both elephants and goats reduced canopy cover and increased shrub density in the Kaffrarian succulent thicket, a dense, semi-succulent thorny vegetation which is rapidly being eliminated under current pastoral systems. The effect of defoliation by elephants and goats was compared. Goats reduced the number of dominant shrub species and drastically reduced the percentage of frequency of the dominant tree succulent, *Portulacaria afra*. Replacing elephants with goats resulted in a fundamental change in the shrub community to one dominated by small, unpalatable shrubs, with a few scattered umbrella-shaped trees. Removing elephants and not replacing them with goats resulted in the sites becoming more dissimilar, possibly because the vegetation reacted to the unique climatic and edaphic potential of each site. It is argued that the Kaffrarian succulent thicket is adapted to elephant utilization, but not to the utilization by small domestic ungulates stocked at equivalent biomass [ID-H/M&DR].
- 5286 LcwW STUART-HILL, G. C., DAVIES, R. J., and STOCKLEY, J. (1992). Farmland elephant: a solution to degradation in the woody vegetation communities of southern Africa. Third international ranching symposium [CSIR: Pretoria]. **Annotation:** *Loxodonta africana*, captivity, translocation, fire, food, habitat alteration, working techniques, KNP [MPK].
- 5287 +avB STUCKY, R. K. and MCKENNA, Malcolm C. (1993). Mammalia. In The fossil record 2 (ed. Michael J. Benton), pp. 739-771. Chapman & Hall, London, 845 pp.
- 5288 LcjW STURGEON, J. and HYLTON, V. (1995). Elephant management in South Africa. African Resources Trust, Occasional Papers, November 1995.
- 5289 EewW STÜWE, Michael, ABDUL, Jasmi B., MOHD. NOR, Burhanuddin, and WEMMER, Christen M. (1998). Tracking the movements of translocated elephants in Malaysia using satellite telemetry. Oryx, 32(1):68-74. **Annotation:** Malaysian Wildlife Department translocated about 392 elephants from plantations to protected areas since 1974. Dense rain forest and steep terrain make it almost impossible to follow their movements to evaluate success of program. Female elephant was fitted with satellite transmitter in 1995, a male fitted in 1996 [E/ECM, p. 68].
- 5290 LecW STYLES, C[hristopher]. (1994). Mopane-worms: more important than elephants? Farmer's Weekly, 29 July 1994:14-16. **Annotation:** Abstract in "Bushcraft", 1(1):19. *Loxodonta africana*, energetics, ecology, defecation [MPK].
- 5291 LewW STYLES, Christopher. (1995). The elephant and the worm. BBC Wildlife, 13(3):22-24. **Annotation:** Research showed that it was not elephant, but eland causing browsing pattern to mopane woodlands in Tuli Block area, Botswana. Findings suggest browsing was beneficial to ecology when mopane worm harvest, one economic factor in area, is considered [ID-H/M&DR].
- 5292 LcwW SUGAL, Cheri. (1997). The price of habitat. Worldwatch, 3:18-27.
- 5293 LicW SUGG, Ike C. and KREUTER, Urs P. (1994). Elephants and ivory: lessons from the trade ban. Institute of Economic Affairs, London, 74 pp.
- 5294 LicW SUGG, Ike C. and KREUTER, Urs P. (1994). Elephants and whales as resources for the noosphere. In Elephants and whales resources for whom? (ed. Milton R. Freeman and Urs P. Kreuter), pp. 17-37. Gordon and Breach, Basel, xiii, 321 pp.
- 5295 EjwW SUKUMAR, Raman. (1989). The Asian elephant: ecology and management. Cambridge University Press, 251 pp. Paperback edition published in 1992, 255 pp. **Annotation:** Provides ecological analysis for elephant-human relations interaction and implications for elephant conservation. Outlines historical background and reviews status and distribution of Asian elephant [ID-H/M&DR]. Reviewed in "JEMA", 8(1):94; "Biological Conservation", 54(2):165-166 (1990); "Journal of Wildlife Management", 58(2):384-385 (1994) [MPK].
- 5296 EjeW SUKUMAR, Raman. (1989). Ecology of the Asian elephant in southern India. I. Movement and habitat utilization patterns. Journal of Tropical Ecology, 5:1-18.
- 5297 EjwW SUKUMAR, Raman. (1990). Ecology of the Asian elephant in southern India. 2. Feeding habits and crop raiding patterns. Journal of Tropical Ecology, 6:33-53.
- 5298 ErqC SUKUMAR, Raman. (1991). The breeding and management of captive Asian elephants in southern India. In Proceedings of The Fifth Elephant Workshop, hosted by Windsor Safari Park, Windsor, United Kingdom, 20 September 1991, pp. 40-43 + 5 unnumbered pp. of figures.
- 5299 BcuW SUKUMAR, Raman. (1991). Conservation. In The illustrated encyclopedia of elephants (consult. ed. S. Keith Eltringham), pp. 158-173. Crescent Books, New York, 188 pp.; Salamander Books, London.
- 5300 EqmC SUKUMAR, Raman. (1991). Demography and management of captive Asian elephants in southern India. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 121-125. Burnet Park Zoo, Syracuse, 161 pp.
- 5301 BjeW SUKUMAR, Raman. (1991). Ecology. In The illustrated encyclopedia of elephants (consult. ed. S. Keith Eltringham), pp. 78-101. Crescent Books, New York, 188 pp.; Salamander Books, London. **Annotation:** *Loxodonta africana*, *Elephas maximus*, food, salt-lick, dung,

- drinking, movements, habitat alteration, distribution [MPK].
- 5302 ErcW SUKUMAR, Raman. (1991). The management of large mammals in relation to male strategies and conflict with people. Biological Conservation, 55:93-102.
- 5303 EwcW SUKUMAR, Raman. (1991). The management of wild Asian elephants. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 13-19. Burnet Park Zoo, Syracuse, 161 pp. **Annotation:** Population, ecology in India, Thailand, Vietnam, Laos, Nepal, Bhutan, Bangladesh, Sumatra, Burma, China, Cambodia, Sri Lanka, Borneo, Malaysia [MPK].
- 5304 EjmW SUKUMAR, Raman. (1993). Minimum viable populations for elephant conservation. Gajah, 11:48-52. **Annotation:** "A total population of 100-200 elephants... would not only have a high (>99%) probability of survival for the next 100 years..., but also be safe in the short term from genetic erosion" [E/JLP].
- 5305 EcwW SUKUMAR, Raman. (1994). Elephant days and nights: 10 years with the Indian elephant. Oxford University Press, Oxford, xvi + 184 pp. **Annotation:** Habitat alteration, rogues, social relations, poaching, behavior, musth, food, reproduction, populations, conservation, India. Reviewed by Robert H. I. Dale in "JEMA", 8(2):79. "For Dr. Sukumar, the survival of the elephant will require a restructuring of human societies and a revision of human priorities" [E/JS].
- 5306 EcwW SUKUMAR, Raman. (1995). Asian Elephant Specialist Group. Species, 25:53-54.
- 5307 EcwW SUKUMAR, Raman. (1995). Elephant raiders and rogues. Natural History, 104(7):52-61. **Annotation:** "The more Asian elephants raid crop fields, the more the farmers' traditional tolerance is put to the test... When new settlements arise in river valleys that elephants have used for millennia, conflict is inevitable" [E/ECM].
- 5308 EcmW SUKUMAR, Raman. (1995). Minimum viable populations for Asian elephant conservation. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 279-288. Bombay Natural History Society, Bombay. Oxford University Press, 535 pp.
- 5309 EjwW SUKUMAR, Raman. (1998). A brief note on research on Asian elephants in India. In National Symposium on Elephant Management and Conservation (ed. Jayantha Jayewardene and Charles Santiapillai), pp. 45-50. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 5310 EnbW SUKUMAR, Raman and GADGIL, M. (1988). Male-female differences in foraging on crops by Asian elephants. Animal Behaviour, 36(4):1233-1235.
- 5311 EnoB SUKUMAR, Raman and RAMESH, R. (1992). Stable carbon isotope ratios in Asian elephant collagen: implications for dietary studies. Oecologia, 91:536-539.
- 5312 EncW SUKUMAR, Raman and RAMESH, R. (1995). Elephant foraging: is browse or grass more important? In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 368-374. Bombay Natural History Society, Bombay. Oxford University Press, 535 pp.
- 5313 EgbW SUKUMAR, Raman and SANTIAPILLAI, Charles. (1993). Asian elephant in Sumatra: population and habitat viability analysis. Gajah, 11:59-63. **Annotation:** From workshop (8-10 November 1993) in Sumatra: minimum estimate of 3,600 elephants is an increase from 1984 numbers. Maximum estimate has declined to 4,500 [JLP].
- 5314 EwhW SUKUMAR, Raman and SANTIAPILLAI, Charles (1996). Elephas maximus: status and distribution. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 327-331. Oxford University Press, 472 pp.
- 5315 EwmW SUKUMAR, Raman and SANTIAPILLAI, Charles. (2000). Asian elephant population estimates and distribution: 1999 update. Elephant, 2(4):12.
- 5316 EnaW SUKUMAR, Raman, BHATTACHARYA, S. K., and KRISHNAMURTHY, R. V. (1987). Carbon isotopic evidence for different feeding patterns in an Asian elephant population. Current Science, 56(1):11-14. **Annotation:** Food, biochemistry, India. Fide Sukumar 1992:85 - "Evidence from carbon isotope ratios in bone collagen... indicates that 55-83% of the organic carbon in adults comes from C3 plants" [C3 plants = most dicot browse and bamboos] [MPK].
- 5317 EnaB SUKUMAR, Raman, JOSHI, N. V., and KRISHNAMURTHY, V. (1988). Growth in the Asian elephant. Proceedings of the Indian Academy of Sciences (Animal Sciences), 97(6):561-571.
- 5318 EwuW SUKUMAR, Raman, RAMAKRISHNAN, Uma, and SANTOSH, J. A. (1995). Ivory poaching and its impact on the demography of Asian elephant populations in southern India. Abstracts, The Wildlife Society, Second Annual Conference, Portland, Oregon, USA, September 12-17, 1995, p. 129.
- 5319 EmwW SUKUMAR, Raman, SURENDRA VARMAN, K., SANTOSH, J. A., and RAMAKRISHNAN, U. (1991). Methods of estimating elephant numbers: a review. In Censusing elephants in forests: proceedings of an International Workshop (ed. U. Ramakrishnan, J. A. Santosh, and R. Sukumar), pp. 2-29. Asian Elephant Conservation Centre, Bangalore.
- 5320 EcwC SUKUMAR, Raman, KRISHNAMURTHY, V., WEMMER, Chris, and RODDEN, Melissa. (1997). Demography of captive Asian elephants (Elephas maximus) in southern India. Zoo Biology, 16:263-272.
- 5321 \*vaU SULERZHITSKII, L. D. (1995). Characteristics of radiocarbon chronology of the woolly mammoth (Mammuthus Primigenius) of Siberia and North of eastern Europe. Proceedings of the Zoological Institute, St. Petersburg, 263:163-183 [in Russian with English summary]. **Annotation:** 188 radiocarbon dates for M. primigenius. Based on reliability of dates and relatively even distribution in time for northern Eurasia, south and north of Arctic Circle, conclusion is made about dynamics of mammoth distribution range in late Pleistocene [E/ECM].
- 5322 EbnW SUNDERRAJ, S. F. Wesley, MISHRA, B. K., and JOHNSINGH, A. J. T. (1993). Elephant use of Rajaji-Corbett forest corridor. Abstracts, pp. 21-22. International seminar on the conservation of the Asian elephant, Mudumalai Wildlife Sanctuary, 13-18 June 1993, Bombay Natural History Society, Bombay.
- 5323 EbcW SUNDERRAJ, S. F. Wesley, MISHRA, B. K., and JOHNSINGH, A. J. T. (1995). Elephant use of Rajaji-Corbett forest corridor, north west India. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 261-269. Bombay Natural History Society, Bombay. Oxford University Press, 535 pp.
- 5324 \*huU SUNLIN, Mark. (1991). Prehistoric extinctions and human overkill. The Animals' Agenda, 11(2):42-3. **Annotation:** Analogy made

- between man's role in animals' demise in Pleistocene and "second wave of extinctions" today [E/JLP].
- 5325 **EcwW** SUNQUIST, F. (1991). Walking tall, talking tough. International Wildlife, 21(5):24-28. **Annotation:** *Elephas maximus*, conservation, Nagarhole National Park, India [MPK].
- 5326 **EbqB** SUNQUIST, F. and SUNQUIST, M. (1988). Tiger moon. University of Chicago Press, Chicago, 187 pp. **Annotation:** *Elephas maximus*, tigers, behavior, interspecific-relations, thermoregulation, captivity, working, RCNP [MPK].
- 5327 **\*awU** SURMELY, F. (1993). Le mammoth, géant de la préhistoire. Editions Solar, Paris, total pages not provided.
- 5328 **LcwW** SUTTON, Frances. (1991). Kilimanjaro elephant project. Conservation Monitoring News (SWRI/TWCM), 4:7.
- 5329 **Bqdc** SUTTON, Michael. A. C. (1988). Skin care at Cricket-St-Thomas Wildlife Park. Proceedings of the First British Elephant Workshop (Chester Zoo), Chester, England, pp. 3-6.
- 5330 **\*avU** SUZUKI, N., TIKHONOV, A., VERESHCHAGIN, N. K., and HAMADA, T. (1992). Extracted heart from the frozen baby mammoth in Siberia. Scientific Papers of the College of Arts and Sciences, The University of Tokyo, 42(1):63-78.
- 5331 **BzqC** SWANAGAN, Jeff. (1992). Public relations, could it be a key to our future? The 13th International Elephant Workshop, Atlanta, 1992, pp. 86-91. Zoo Atlanta, Georgia, 151 pp.
- 5332 **LcwW** SWANEPOEL, C. M. (1993). Baobab damage in Mana Pools National Park, Zimbabwe. African Journal of Ecology, 31(3):220-225. **Annotation:** Between 1984 and 1988 in MPNP, 124 baobabs near the Zambezi River were monitored for elephant damage at monthly intervals. Overall mortality was 29.0%. Damage and mortality rate varied annually, possibly related to annual rainfall and elephant densities. No indication mortality was higher in any particular size group of baobab. Damage restricted to dry season, escalating as season progressed. Though many smaller trees were killed, there was no indication that elephants concentrated on any particular size group. Young trees had the ability to coppice after being felled and many small trees were thought to have regrown after felling some time prior to the study [ID-H/M&DR].
- 5333 **LciW** SWANSON, Timothy M. (1989). International regulation and national resource management: policy options for African elephant conservation. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 6.1. The Ivory Trade Review Group, Oxford. **Annotation:** In past two decades, as elephant populations declined, regulatory measures to stem this situation increased; reviews reasons behind current failures, looks at management options available. Potential regulatory regimes discussed based on assumption the conservation of the African elephant depends on countries' economic self-interest [ID-H/M&DR].
- 5334 **BicW** SWANSON, Timothy M. (1989). International regulation of the ivory trade: a proposal for the reform of the African elephant ivory trade. IIED (International Institute for Environment and Development). LEEC Paper 89-04. ii, London, 75 pp. **Annotation:** Based on CITES, the role of international regulation to address management problems of national resources [ID-H/M&DR].
- 5335 **LicW** SWANSON, Timothy M. (1989). The law and economics of resource management and the policy options for controlling the ivory trade. In The ivory trade and the future of the African elephant: interim report. Prepared for the Second Meeting of the CITES African Elephant Working Group, Gaborone Botswana 4-8 July 1989: Oxford, Ivory Trade Review Group, 69 pp. **Annotation:** Resource management, law and policy, need for economic returns for resource maintenance [ID-H/M&DR].
- 5336 **LicW** SWANSON, Timothy M. and PEARCE, D. W. (1989). The regulation of the international ivory trade. IUCN, Gland, 22 pp. **Annotation:** Zimbabwe proposal to seventh CITES meeting providing for creation of Southern African Centre for Ivory Marketing (SACIM). Framework for Ivory Exchange is positive but amendments required to work, it must function as a corporate entity, not just a construct of purely international law [ID-H/M&DR].
- 5337 **BejW** SWART, J. H. and DUFFY, K. J. (1987). The stability of a predator-prey model applied to the destruction of trees by elephants. South African Journal of Science, 83(3):156-158. **Annotation:** A simplified version of the Caughley model for an elephant-tree ecology with special reference to existence of stable limit cycles. Such cycles will occur only in a very narrow range of parameters, but are theoretically possible. Conclusion reached is that in general limit cycles will not occur and if they did, the period would be so large that is not possible to utilize them in practice [ID-H/M&DR].
- 5338 **BavB** SZALAY, F. S., NOVACEK, M. J., and MCKENNA, M. C. (eds). (1993). Mammal phylogeny, 2 volumes. Springer-Verlag, New York, 321 pp (vol. 1), 249 pp. (vol. 2). **Annotation:** Review by Richard W. Thorington, Jr. in "BioScience", 1994, 44(10):705-706 [MPK].
- 5339 **LaoU** TADA, Tomoko, WATANABE, Yo-hei, MATSUOKA, Ariki, IKEDA-SAITO, Masao, IMAI, Kiyohiro, NI-HEI, Yukio, and SHIKAMA, Keiji. (1998). African elephant myoglobin with an unusual autoxidation behavior: comparison with the H64Q mutant of sperm whale myoglobin. Biochemica et Biophysica Acta, 1387(1/2):165-176.
- 5340 **LcwW** TAFANGENYASHA, C. (1997). Tree loss on the Gonarezhou National Park (Zimbabwe) between 1970 and 1983. Journal of Environmental Management, 49(3):355-366.
- 5341 **EkjW** TAJUDDIN, Mohd., DAIM, Abdullah. Mohd. Shariff, and ZAINUDDIN, Zainal Zahari. (1992). Capture, immobilization, and translocation of an elephant from Pulau Ubin, Singapore to Endau-Rompin State Park, Johore, Malaysia. 1992. Asian Elephant Specialist Group Newsletter, 8:34-37. **Annotation:** A wild elephant from a herd of four roaming southern Johore was captured when it appeared on a small island northeast of Singapore, threatening 200 residents. The operation was conducted by Singaporean and Malaysian workers [JLP].
- 5342 **\*hnU** TAKAHASHI, Keiichi. (1990). The Naumann's elephant—its history of studies and fruits. Collecting and Breeding (Japanese name is "Saisyu to Shiiku"), 52(1):19-22 [in Japanese].
- 5343 **\*avU** TAKAHASHI, Keiichi. (1990). Proboscidean fossils from the Japan Sea. Quaternary Research, 29(3):235-244 [in Japanese with English abstract].
- 5344 **\*avU** TAKAHASHI, Keiichi, HOSHIMI, Kiyoharu, and AKAGO, Saburo. (1990). A fossil proboscidean molar from the Yamato Ridge, Japan Sea. Bulletin of the Tottori Prefecture Museum, 27: 45-51 [in Japanese with English abstract].
- 5345 **\*avU** TAKAHASHI, Keiichi, MAZIMA, Mobuo, and FOSSIL MAMMAL RESEARCH GROUP FOR NOJIRI-KO EXCAVATION. (1991). Morphological description and its variation in the molars of the Naumann's elephant (*Palaeoloxodon naumanni* (Makiyama) from Lake Nojiri, Nagano Prefecture, central Japan. Journal of Fossil Research, 24:7-32 [in Japanese].

- 5346 \*avU TAKAHASHI, Keiichi, INUZUKA, Norihisa, KAWAMURA, Yoshinari, and NASU, Takano. (1991). Paleontology of *Palaeoloxodon naumanni*. In Japanese proboscidean fossils (ed. T. Kamei), pp. 11-179. Tsukiji-Shokan, Tokyo [in Japanese], 273 pp.
- 5347 LioB TAKEUCHI, T., NAKANO, Y., and KOIKE, H. (1996). Neutron activation analysis of ivory of African elephants. Journal of Radioanalytical and Nuclear Chemistry, 205(2):301-309.
- 5348 LioB TAKEUCHI, T., NAKANO, Y., and KOIKE, H. (1998). Neutron activation analysis of ivory of African elephants. Journal of Radioanalytical and Nuclear Chemistry, 235(1/2):273-277.
- 5349 LvxW TANGLEY, Laura. (1997). In search of Africa's forgotten forest elephant. Science, 275:1417-1419. **Annotation:** Most taxonomists have long thought of the forest elephant as a separate subspecies from the savannah elephant. New analyses of mitochondrial DNA suggest that the two may be different species [E/ECM].
- 5350 \*vjU TANGLEY, Laura. (1999). From the tundra, a big and woolly discovery. U.S. News & World Report, November 1:72. **Annotation:** A month long expedition to excavate remains of a 20,000-year-old woolly mammoth (named "Jarkov") from central Siberian permafrost; cf. Reference nos. 5272, 3969 [E/ECM].
- 5351 \*avU TANITO, Shigeru, TAKAHASHI, K., and TAKAYASU, Katsumi. (1992). The discovery of a proboscidean molar tooth from the sea bottom off Oki Island, southwest Japan Sea. Earth Science, 46(4):287-290 [in Japanese].
- 5352 LcwW TANZANIA, MINISTRY OF TOURISM, NATURAL RESOURCES AND THE ENVIRONMENT. (1989). Amendment to Appendix I of the Convention: transfer of the African elephant (*Loxodonta africana*) from Appendix II to Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). In Seventh Meeting of the Conference of the Parties, 118 pp.
- 5353 LcwW TANZANIA, MINISTRY OF TOURISM, NATURAL RESOURCES AND THE ENVIRONMENT. (1991). Elephant conservation plan for Tanzania. The Ministry, Dar es Salaam, vii, 52 pp.
- 5354 LcwW TANZANIA, MINISTRY OF TOURISM, NATURAL RESOURCES AND THE ENVIRONMENT. (1993). Elephant conservation in the United Republic of Tanzania. Presented at the Eastern Africa regional meeting on elephant conservation held 24-27 August 1993, Arusha, 9 pp.
- 5355 LcwW TARASOFSKY, Richard, and BURHENNE-GUILMIN, Françoise (eds). (1998). CITES - The African elephant case. Environmental Policy and Law, 28(1):21-26.
- 5356 \*avU TARU, Hajime. (1996). Isolated scapula and humerus of *Stegodon* sp. from the early Pleistocene of Hirayama Formation in Akishima City, Tokyo. Bulletin of the Kanagawa prefect. Museum (Natural Science), 25:59-70 [in Japanese with English abstract, figure captions and tables]. **Annotation:** Explores the possibility of distinguishing *Stegodon* and *Palaeoloxodon* on an isolated scapula or humerus [E/ECM].
- 5357 \*avU TARUNO, Hiroyuki, UCHIYAMA, K., KAUANABE, T., KONDO, Y., SHIONO, T., ZHAO, Z., and NASU, K. (1992). Footprint fossils of Naumann's elephant discovered from the upper Pleistocene Nojiri-ko Formation. Earth Science, 46(6):385-404 + i-v [in Japanese with English abstract].
- 5358 \*avU TASSY, Pascal. (1987). A hypothesis on the homology of proboscidean tusks based on paleontological data. American Museum Novitates, 2895:1-18. **Annotation:** Late Miocene elephantoid species *Amebelodon floridanus* and comparisons with *Moeritherium* and other elephantoid taxa led to conclusion that tusks of *Moeritherium* and of Elephantoida are not homologous. See, however, discussion by Lockett (Reference no. 4240, pp. 30-31) who praises Tassy for this work, but disagrees with him on certain aspects [ECM, abstract] [in English with abstracts in English and French].
- 5359 +avB TASSY, Pascal. (1988). The classification of Proboscidea: how many cladistic classifications? Cladistics, 4:43-57.
- 5360 \*avU TASSY, Pascal. (1988). Le statut systématique de l'espèce *Hemimastodon crepusculi* (Pilgrim): l'éternel problème de l'homologie et de la convergence. Annales de Paléontologie (Vert.-Invert.), 74(3):115-127.
- 5361 +vaU TASSY, Pascal. (1990). Phylogénie et classification des Proboscidea (Mammalia): historique et actualité. Annales de Paléontologie (Vert.-Invert.), 76(3):159-224.
- 5362 \*hvU TASSY, Pascal. (1990). The "proboscidean datum event:" how many proboscideans and how many events? In European Neogene mammal chronology (ed. E. H. Lindsay, V. Fahlbusch, and P. Mein), pp. 237-252. Plenum, New York [copyright date, 1989], 658 pp.
- 5363 \*avU TASSY, Pascal. (1993). The message of fossils. McGraw-Hill, New York. 163 pp. [French edition published 1991 as "Le Message des fossiles", by Hachette, Paris].
- 5364 \*avU TASSY, Pascal. (1994). Gaps, parsimony, and early Miocene elephantoids (Mammalia), with a reevaluation of *Gomphotherium annectens* (Matsumoto, 1925). Zoological Journal of the Linnean Society, 112:101-117. **Annotation:** "From parsimony analyses it seems very likely that early Miocene Old World so-called gomphotheres (*Gomphotherium 'annectens' group*) are not closely related to other gomphotheres" [ECM; p. 101].
- 5365 \*avU TASSY, Pascal. (1994). Les gisements de mammifères du Miocène supérieur de Kemiklitepe, Turquie: 7. Proboscidea (Mammalia). Bulletin du Muséum National d'Histoire Naturelle, Paris, 4e Série, 16, Section C, 1:143-157 [in French with French and English abstract, and figure and plate captions]. **Annotation:** Proboscideans included are: *Choerolophodon pentelici*, *C. p. pentelici*, *C. pentelici* ssp. indeterminate [ECM].
- 5366 \*avU TASSY, Pascal. (1994). Origin and differentiation of the Elephantiformes (Mammalia, Proboscidea). Verhandlungen des Naturwissenschaftlichen Vereins in Hamburg, (NF) 34:73-94.
- 5367 \*avU TASSY, Pascal. (1996). Dental homologies and nomenclature in the Proboscidea. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 21-25. Oxford University Press, 472 pp.
- 5368 \*vaU TASSY, Pascal. (1996). The earliest gomphotheres. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 89-91. Oxford University Press, 472 pp.
- 5369 \*veU TASSY, Pascal. (1996). Growth and sexual dimorphism among Miocene elephantoids: the example of *Gomphotherium angustidens*. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 92-100. Oxford University Press, 472 pp.
- 5370 +vaB TASSY, Pascal. (1996). Who is who among the Proboscidea? In The Proboscidea: evolution and palaeoecology of elephants and their rela-

- tives (ed. J. Shoshani and P. Tassy), pp. 39-48. Oxford University Press, 472 pp.
- 5371 BajB TASSY, Pascal. (1998). Et la trompe vint aux éléphants. *La Recherche*, numéro spécial "L'origine des formes", janvier 1998, n°305:54-57.
- 5372 \*vwU TASSY, Pascal. (1999). Miocene elephantids (Mammalia) from the Emirate of Abu Dhabi, United Arab Emirates: palaeobiogeographic implications. In *Fossil vertebrates of Arabia* (ed. P. J. Whybrow and A. Hill), pp. 209-233. Yale University Press, New Haven and London. **Annotation:** Includes *Stegotrabelodon syrticus*, *Deinotherium*, "*Mastodon*" *grandincisivus*. "...the endemism of proboscideans in the late Miocene of Africa is restricted to the Elephantidae only. Africa then includes the Arabian Peninsula from a palaeobiogeographic viewpoint" [E/JS/ECM].
- 5373 \*avU TASSY, Pascal and DARLU, P. (1987). Les Elephantidae: nouveau regard sur les analyses de parcimonie. *Géobios*, 20(4):487-494.
- 5374 +vaB TASSY, Pascal and SHOSHANI, Jeheskel. (1988). The Tethytheria: elephants and their relatives. In *The phylogeny and classification of the tetrapods. Volume 2: mammals* (ed. M. J. Benton), pp. 283-315. The Systematics Association, Special Volume No. 35B. Clarendon Press, Oxford, 329 pp.
- 5375 +vhB TASSY, Pascal and SHOSHANI, Jeheskel. (1996). Historical overview of classification and phylogeny of the Proboscidea. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 3-8. Oxford University Press, 472 pp.
- 5376 \*vwU TASSY, Pascal and THOMAS, H. (1988). Les faunes de mammifères miocènes du Neguev (Israël) et d'Arabie Saoudite peuvent-elles dater la fermeture orientale de la Tethys? Abstract. *Coll. ASP Evolution: 1984-1988, bilan et perspectives, Centre National de la Recherche Scientifique*, Paris, p. 49.
- 5377 \*avU TASSY, Pascal, SEN, S., JAEGER, J.-J., MAZIN, J.-M., and DALFES, N. (1989). Une sous-espèce nouvelle de *Choerolophodon pentelici* (Proboscidea, Mammalia) à Esme Akçaköy, Miocène supérieur d'Anatolie occidentale. *Comptes Rendus de l'Académie des Sciences, Paris*, t. 309, Serie II, p. 2143-2146.
- 5378 \*avU TASSY, Pascal, ANUPANDHANAT, P., GINSBURG, L., MEIN, P., RATANASTHIEN, B., and SUTTEETHORN, V. (1992). A new *Stegolophodon* (Proboscidea, Mammalia) from the early Miocene of northern Thailand. *Géobios*, 25(4):511-523.
- 5379 +jvB TATTERSALL, Ian. (1993). *The human odyssey: four million years of human evolution*. Prentice Hall General Reference, New York, 191 pp. **Annotation:** Page 158 has diorama with hut in Ukraine, built of 17 tons of bones, representing remains of 95 mammoths. Pages 174-5 shows mural by Charles Knight of AMNH: a group of Cro-Magnons decorating a Paleolithic cave; on wall appears to be three woolly mammoths, a fourth one is in process of completion [JS].
- 5380 LciW TAVENGWA, Tawona. (1997). Use it or lose it. *Swara*, 20(3):12-13. **Annotation:** "The greatest danger to all wildlife is the removal of its economic value" [E/ECM, p. 12].
- 5381 EroB TAYA, K., KOMURA, H., KONDOH, M., OGAWA, Y., NAKADA, K., WANTANABE, G., SASAMOTO, S., TANABE, K., SAITO, K., TAJIMA, H., and NARUSHIMA, E. (1991). Concentrations of progesterone, testosterone and estradiol - 17 $\beta$  in the serum during the estrous cycle of Asian elephants (*Elephas maximus*). *Zoo Biology*, 10:299-307.
- 5382 LcwW TAYLOR, Caroline. (1997). The challenge of African elephant conservation. *Conservation Issues* (WWF-US), 4(2):1, 3-11.
- 5383 BdpC TAYLOR, [J.] David. (1990). *Vet on the wild side*. St. Martin's Press, New York, xi + 224 pp.
- 5384 BdpC TAYLOR, David. (1991). *Vet on the wild side: further adventures of a wildlife vet*. St. Martin's Press, New York, total pages not provided.
- 5385 EdqC TAYLOR, David. (1993). *The patient elephant*. Robson/Parkwest Publications, Jersey City, New Jersey, total pages not provided. **Annotation:** *Elephas maximus*, captivity, Flamingo Park, Yorkshire, England. Condensed version appeared in Reader's Digest [June 1996, pp. 233-4, 236-8] [MPK].
- 5386 EdqC TAYLOR, David. (1996). My elephant patient. *Reader's Digest*, June, 1996:233-4, 236-8 [condensed from "The patient elephant", Robson/Parkwest, Jersey City, New Jersey, 1993]. **Annotation:** Zoo veterinarian describes an operation to remove a plum-sized polyp from the left nostril of the trunk of a female Asian elephant, Ellie, at the Flamingo Park Zoo, Yorkshire, England [ECM].
- 5387 BmqC TAYLOR, Gordon. (1992). Elephant notes. *Circus Report*, No. 49:6. **Annotation:** Sandra Shoshani of the Elephant Research Foundation reports that in 1992 there are 390 Asian and 330 African elephants in North America [JLP].
- 5388 LmwW TAYLOR, Russell D. (1987). Abundance and distribution of elephants in Matusadona National Park, Zimbabwe. *Transactions of the Zimbabwe Science Association*, 63(6):58-66. **Annotation:** Numbers and seasonal distribution of elephants in MaNP were determined by aerial survey between 1967 and 1977. Corrected minimum total counts provided estimates of elephants varying from 600 in the wet season to 1,300 in the dry season, equivalent to densities of 0.4 and 1.0 elephants sq. km. The mean size of elephant groups, 6.0, was low suggesting a stress free population [ID-H/M&DR].
- 5389 LbcW TAYLOR, Russell D. (1987). *Les elephants de Madarounfa: an investigation of an incursion of elephants into southern Niger* [Consultant's Report]. World Wildlife Foundation, Gland, viii, 81 pp. **Annotation:** Details incursion of elephants into Madarounfa area of southern Niger with possible solutions. Up to 70 elephants migrated in search of water and food as the result of poaching. Elephants feed in bushland by day and seek water and damage crops at night. Though there has been tolerance between people and elephants during dry season, there is concern about crop damage during wet season. Short term solution: public awareness, establishment of water supplies in ungazetted Baba Nrafi forest. Long term solutions: land use plan comprising cultivated settlement, livestock and elephant range, community participation in the sustainable use of pasturage, water, forestry and wildlife with benefit accruing directly to the people involved [ID-H/M&DR].
- 5390 LcwW TAYLOR, Russell D. (1991). *Aerial census of large herbivores in pilot project areas October 1989*. World Wildlife Foundation, Harare, 59 pp.
- 5391 LcuW TAYLOR, Russell D. (1993). Elephant management in Nyaminyami District, Zimbabwe: turning a liability into an asset. *Pachyderm*, 17:19-29. **Annotation:** Also published by: Harare: WWF/Zimbabwe DNPWLM, 16 pp. Summarized in *Oryx*, 28(3):145-146 [1994]. Paper presented at the IUCN/SCC AfESG meeting, Victoria Falls, Zimbabwe, 17-22 November 1992. Also published as WWF Multispecies Animal Production Systems Project Paper no 33. *Oryx*, 28(3):45-46. In Nyaminyami District on southern shores of Lake Kariba, 20,000 people share Omay Communal Land with some 2,000 elephants and other large wild animals. Elephants are major cause of

- conflict between wildlife and people for damage inflicted on crops and property, plus injury or death to humans. CAMPFIRE program aimed at reducing conflict between elephants and humans and increasing tolerance for these animals [ID-H/M&DR].
- 5392 LcwW TAYLOR, Russell D. (1993). Working group discussion three: elephant-habitat working group (African Elephant Specialist Group meeting, 17-22 November 1992, Victoria Falls, Zimbabwe). *Pachyderm*, 17:10-18. **Annotation:** Humans have more impact in ecosystem transformation than elephants do [ERD]. Discussion related to management of elephants in protected areas, and problems of management outside such areas and aspects of monitoring impact of elephants on their habitats [ID-H/M&DR].
- 5393 LcwW TAYLOR, Russell D. (1994). Elephant management in the Nyaminyami District, Zimbabwe: turning a liability into an asset. In *Elephants and whales resources for whom?* (ed. Milton R. Freeman and Urs P. Kreuter), pp. 113-127. Gordon and Breach, Basel, 321 + xiii pp.
- 5394 LckW TAYLOR, Russell D. and CUMMING, D. H. M. (1993). *Elephant management in southern Africa*. WWF/Zimbabwe DNPWLM, Harare, 23 pp. **Annotation:** Culling, habitat alteration, parks, Zimbabwe, Botswana, South Africa, Malawi, Namibia [MPK].
- 5395 LmwW TAYLOR, Russell D., CUMMING, David H. M., and MACKIE, Charles S. (1992). Aerial census of elephant and other large herbivores in the Sebungwe 1991. *World Wildlife Fund Multi-species Project Paper No. 29*.
- 5396 LewW TCHAMBA, Martin N. (1991). Defaecation by the African forest elephant (*Loxodonta africana cyclotis*) in the Santchou Reserve, Cameroon. *Nature et Faune*, 7(3):27-31/47-50. Also published in *Mammalia*, 56(1):155-158, 1992. **Annotation:** Dropping counts used to identify and estimate elephant population in vicinity of Santchou Reserve. 20 droppings per day is fair approximation for elephant defecation rate in humid evergreen forest of Central and West Africa. defecation rates do not fluctuate significantly on a seasonal basis. Includes crop raiding, land use conflict, and footprint measurements [ID-H/M&DR].
- 5397 LcnW TCHAMBA, Martin N. (1993). Feeding of elephants in Santchou Reserve, Cameroon. *African Journal of Ecology*, 31:165-171.
- 5398 LwcW TCHAMBA, Martin N. (1993). Number and migration patterns of savanna elephants (*Loxodonta africana africana*) in northern Cameroon. *Pachyderm*, 16:66-71. **Annotation:** AfESG meeting, Victoria Falls, Zimbabwe, Nov. 17-22, 1993. Sudanian region of Cameroon covers about 198,000 sq. km and comprises two major domains; the Sahelian and the Sudanian. The Waza-Logone floodplain lies in the Sahelian domain and has one of the largest elephant populations of the Sudano-Sahelian region of west and central Africa. They migrate between WNP and KalNP depending on weather. Other elephant populations move seasonally correlating with water and food, but on a limited scale. Migrations in northern Cameroon concern of many. Elephants are killed, farms damaged and crops lost [ID-H/M&DR].
- 5399 LcwW TCHAMBA, Martin N. (1995). The impact of elephant browsing on the vegetation in Waza National Park, Cameroon. *African Journal of Ecology*, 33(3):184-193. **Annotation:** *Acacia seyal* zone and woodland zone of WNP sampled by line transects to assess damage to trees by elephants. In *Acacia seyal* zone, 1,503 trees were examined of which 65% were undamaged, 15% less than three quarters browsed and 20% seriously damaged. In woodland zone, 1,431 trees were examined of which 55% were undamaged, 36% were less than three quarters browsed and 9% seriously damaged. In *Acacia seyal* seriously damaged trees were from mature class while in woodland the majority of damaged trees (66% and 74%, respectively) were of mature class. Woodland zone of Waza under far less browsing pressure than KalNP, a dry season habitat for some Waza elephants. In both parks *Acacia seyal*, *Piliostigma reticulatum*, *Combretum* spp. and *Balanites aegyptiaca* were preferred foods. Monitoring of vegetation in WNP and KalNP recommended [ID-H/M&DR].
- 5400 LcwW TCHAMBA, Martin N. (1995). The problem elephants of Kaele: a challenge for elephant conservation in northern Cameroon. *Pachyderm*, 19:26-32. **Annotation:** Human-elephant conflict in the Kaele where a small resident population was recently augmented by animals entering area because of disruptions in their home territory. Need for research into the background of the elephants, strategies for mitigating human-elephant conflict and application of long term management programs [ID-H/M&DR].
- 5401 LbcW TCHAMBA, Martin N. (1996). Elephants and their interactions with people and vegetation in the Waza-Logone region, Cameroon. D. Phil. Thesis, University of Utrecht, 253 pp.
- 5402 LcwW TCHAMBA, Martin N. (1996). History and present status of the human/elephant conflict in the Waza-Logone Region, Cameroon, West Africa. *Biological Conservation*, 75(1):35-41. **Annotation:** Increasing elephant population coupled with rapid human population growth and the expansion of agricultural land has escalated human/elephant conflict in the Waza/Longone region. Elephant damage to crops doubled between 1992 and 1993 in the Kaele and Mindif areas and caused increasing loss of human life. Present situation likely to worsen unless control of 'problem animals' and management of WNP improved, a conservation education program developed and an adequate compensation scheme designed. Determination of elephant movements and home ranges is necessary to identify causes of migrations [ID-H/M&DR].
- 5403 LbcW TCHAMBA, Martin N. (1998). Habitudes migratoires des elephants et interactions homme-elephant dans la region de Waza-Logone (nord Cameroun). *Pachyderm*, 25:53-66 [in French with English and French abstracts]. **Annotation:** In 1991 the population of elephants was estimated at 1,100 and may have been more than 1,400. Three subpopulations have been identified in WNP [E/ECM].
- 5404 LcmW TCHAMBA, Martin N. and ELKAN, P. (1995). States and trends of some large mammals and ostriches in Waza National Park, Cameroon. *African Journal of Ecology*, 33(4):366-376. **Annotation:** Results of transect aerial surveys estimated a total population of 1,071 elephant in WNP. This 1991 estimate was substantially higher than previous estimates of 465 and 478 by Esser and Van Lavierien in 1977 and 250 by Flizot in 1962. Elephants were distributed throughout the *Acacia seyal* area in large herds as well as small groups with the largest group being 323 animals. There is some migration between KalNP and WNP. Elephants showed a significant increase of 9.3% since 1977 and it is recommended that data be collected on crop raiding and measures be taken to limit human/elephant conflicts [ID-H/M&DR].
- 5405 LcmW TCHAMBA, Martin N. and MAHAMAT, H. (1992). Effects of elephant browsing on the vegetation in Kalamaloue National Park, Cameroon. *Nature et Faune*, 8(2):8-14. **Annotation:** Also published in *Mammalia*, 56(4):533-540. KalNP was sampled by means of line transects to assess damage to trees caused by elephants in dry season. 2,602 trees examined of which 53% were damaged (less than three-quarters browsed) and 44% were dead (three-quarters browsed). Most mature trees were dead (77%). Of trees browsed, majority (57%) came from recruitment class. Five most preferred, heavily utilized tree species were *Combretum aculeatum*, *Acacia seyal*, *Balanites*



- aegyptiaca*, *Ptilostigma reticulatum* and *Bauhinia rufescens*. Elephant damage to vegetation is serious enough to warrant management intervention [ID-H/M&DR].
- 5406 LnmW TCHAMBA, Martin N. and SEME, Prosper M. (1993). Diet and feeding behaviour of the forest elephant in the Santchou Reserve, Cameroon. *African Journal of Ecology*, 31(2):165-171. **Annotation:** Diet and feeding behavior of forest elephants in western Cameroon. Diet consists primarily of grass. 22 species of fruit were consumed, 7 species forming a significant component. Greatest variety of fruit was available in dry season. Crop seeds often present in dung indicating elephant incursions were regular. 17 species of trees and shrubs browsed. Elephants fed mainly by grazing or stripping off fruits. Debarking trees, breaking main stems and uprooting or pushing over trees were minor feeding activities [ID-H/M&DR].
- 5407 LcwW TCHAMBA, Martin N., BARNES, Richard F. W., NDIJOH A NDIANG, Issa. (1997). *National elephant management plan: Republic of Cameroon*. Ministry of Environment and Forestry/WWF, Yaounde, 48 pp.
- 5408 LcwW TCHAMBA, Martin N., BAUER, H., and DE IONGH, H. H. (1995). Application of VHF-radio and satellite telemetry techniques on elephants in northern Cameroon. *African Journal of Ecology*, 33(4):335-346. **Annotation:** Two young adult cows fitted with VHF-radio and satellite transmitters were tracked for ten and twenty-one months, respectively, in WNP. Home range and seasonal migratory patterns were assessed, as were accuracy of satellite and radio tracking [ID-H/M&DR].
- 5409 LcjW TCHAMBA, Martin N., WANZIE, C. S., YADJI, B., and GARTLAN, S. (1991). *National Plan for elephant conservation*. Republic of Cameroon, Ministry of Tourism. 87 pp.
- 5410 LwjW TCHAMBA, Martin N., BAUER, H., HUBIA, A., DE IONGH, H. H., and PLANTON, H. (1994). Some observations of the movements and home range of elephants in Waza National Park, Cameroon. *Mammalia*, 58(4):527-533.
- 5411 \*vwU TCHERNOV, Eitan. (1992). The Afro-Arabian component in the Levantine mammalian fauna — a short biogeographical review. *Israel Journal of Zoology*, 38(3-4):155-192. **Annotation:** Extinct proboscideans are mentioned.
- 5412 \*ewU TCHERNOV, Eitan and SHOSHANI, Jeheskel. (1989). Neogene and Pleistocene proboscidean remains in the southern Levant. *Abstracts of Papers and Posters Fifth International Theriological Congress, Rome, 22-29 August 1989, Volume I*:164-165.
- 5413 \*ewU TCHERNOV, Eitan and SHOSHANI, Jeheskel. (1996). Proboscidean remains in southern Levant. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 225-233. Oxford University Press, 472 pp. **Annotation:** Teeth, evolution, Israel, Syria, Cyprus, Turkey, Lebanon, Egypt, Jordan, Tethys [MPK].
- 5414 \*avU TCHERNOV, Eitan, GINSBURG, L., TASSY, Pascal, and GOLDSMITH, N. F. (1987). Miocene mammals of the Negev (Israel). *Journal of Vertebrate Paleontology*, 7(3):284-310.
- 5415 \*evU TCHERNOV, Eitan, KOLSKA HORWITZ, Liora, RONEN, Avraham, and LISTER, Adrian. (1994). The faunal remains from Evron Quarry in relation to other lower Paleolithic hominid sites in the Southern Levant. *Quaternary Research*, 42(3):328-339. **Annotation:** "The mammalian faunule from Evron comprises a biogeographical mixture, a result of biotic exchanges with Africa, the Oriental region, and the Palaearctic. This exchange may have been associated with a post-'Ubeidiya hominid dispersal, either from Africa or south Asia via the Levantine 'corridor'." Proboscidean remains include *Elephas* sp., possibly *E. hysudricus-E. maximus*, southern Asiatic line; *Stegodon* sp., most probably Asiatic origin, p. 332 [E/ECM, abstract].
- 5416 \*evU TEDFORD, Richard, FLYNN, L., ZHANXIANG, Q., OPDYKE, N., and DOWNS, W. (1991). Yushe Basin, China; paleomagnetically calibrated mammalian biostratigraphic standard for the late Neogene of eastern Asia. *Journal of Vertebrate Paleontology*, 11(4):519-526.
- 5417 \*evU TEDFORD, Richard H., SKINNER, M. F., FIELDS, R. W., RENSBERGER, J. M., WHISTLER, D. P., GALUSHA, T., TAYLOR, B. E., MACDONALD, J. R., and WEBB, S. D. (1987). Faunal succession and biochronology of the Arikarean through Hemphillian interval (late Oligocene through earliest Pliocene epochs) in North America. In *Cenozoic mammals of North America: geochronology and biostratigraphy* (ed. Michael. O. Woodburne), pp. 153-210. University of California Press, Berkeley.
- 5418 LapB TEIXEIRA, Maria, KRAMER, Beverley, and HATTINGH, J. (1990). The adrenal gland of the African elephant, *Loxodonta africana*: a light and electron microscopic study [Abstract]. *South African Journal of Science*, 86(3):161.
- 5419 LciW TELECKY, Teresa M. (1997). Tug-of-war at CITES. *HSUS News [The Humane Society of the United States]*, 42(4):21-29. **Annotation:** "Moving elephants from CITES Appendix I to Appendix II could permit the international ivory trade to resume as soon as March 1999" [E/SLS].
- 5420 LcqC TELECKY, Teresa M. and FARINATO, Richard H. (1999). Animal advocates come to aid of baby elephants. *All Animals [The Humane Society of the United States]*, Spring:3. **Annotation:** In summer 1998, 30 calves, 2 to 7 years old were violently, but legally, taken from their families in a private reserve called the Tuli Block in Botswana and sold to foreign buyers. Update of the calves' fate. See Reference nos. 3868, 3872, 3873, 3874, 4497, 4905 [ECM].
- 5421 LucW TELECKY, Teresa M. and LIN, Doris. (1995). *Big game, big bucks: the alarming growth of the American trophy hunting industry*. Humane Society of the United States/HSL, Washington, D.C., 33 pp.
- 5422 LicW TELECKY, Teresa M. and WILLS, David K. (1992). *The African elephant and the uncontrollable ivory trade: the results of an analysis and investigation for the Eighth Meeting of the Parties to the Convention on International Trade in endangered Species of Wild Fauna and Flora*. Humane Society of the United States/HSI, Washington, D.C., 20 pp.
- 5423 LcwW TELECKY, Teresa M. and WILLS, David K. (1993). *Zimbabwe: driving wildlife to extinction (an investigative report on the crisis facing elephants and rhinoceros in Zimbabwe)*. Humane Society of the United States/HSI, Washington, D.C., 29 pp.
- 5424 LcmW TEMBO, A. (1995). A survey of large mammals in Sioma-Ngwezi National Park, Zambia. *African Journal of Ecology*, 33(2):173-174. **Annotation:** A December 1991 aerial survey was intended to establish baseline populations for the Park's large mammals including elephant. The importance of the Park is based on the large elephant population which is certainly a contiguous population which crosses into Namibia and Angola. The elephant population estimate was 1,187 giving a density of .22 for the Park as a whole. The carcass-to-live ratio calculated for this population was 14% [ID-H/M&DR].
- 5425 LhuW TEMPORAL, J. (1989). La chasse oubliée. *Gerfaut Club*, 129 pp. **Annotation:** Describes in words and dramatic paintings a first hand account of elephant hunting by spear on horseback practiced among people in the Sudanese region [ID-H/M&DR].

- 5426 **BiuW** TEMPSKE, Tom. (1987-1988). Ivory: is it necessary? Hasti Newsletter, 6:3-4. **Annotation:** The cost of ivory, prior to the ban on trade, and the prevalence of poaching in African are documented [E/JLP].
- 5427 **BceW** TEMPSKE, Tom. (1987). On causes of elephant extinction. Hasti Newsletter, 4:5. **Annotation:** Clarifying the reasons for the elephant crisis [JLP].
- 5428 **EtkW** TENNENT, James Emerson. (1996). The wild elephant and the method of capturing and taming it in Ceylon. White Orchid Press, Chatuchak (Thailand), 198 pp. Reprint of 1867 book published by Longmans, Green, and Co., London. **Annotation:** Full of outrageous misunderstandings, but also rich insights. Author understood that the leader of a herd was a wise old cow, not 'the harem bull' assumed by other authors. He understood elephant nature and obviously felt great affection and sympathy for them at a time when they were first being systematically exterminated on the Isle of Serendib [E/ECM].
- 5429 **LcuW** TENNESEN, Michael. (1998). Knoxville turns the BIG FIVE-O: a Tennessee zoo marks a milestone. Wildlife Conservation, 101(5):66-67. **Annotation:** "Mamie" the elephant's "paintings" sell for \$25.00 apiece, and she has back orders for over 40 paintings. "Old Diamond" was rallying point for community support when the zoo began. He sired first African elephant born in captivity in the Western Hemisphere in 1978. Today, the zoo has five elephants. It is known for a number of cooperative breeding efforts, including red pandas, white rhinos, bog turtles and African lions [E/ECM].
- 5430 **BrqC** TERKEL, Amelia S. (2000). History, update, and the "baby boom" of elephants in 1987 at the Zoological Center, Ramat-Gan, Israel. Elephant, 2(4):37-47. **Annotation:** Has one of the largest breeding herds of African elephants in captivity and a breeding herd of Asian elephants [E/ECM].
- 5431 **LqrC** TERKEL, Amelia [S.] and EPSTEIN, Z. (1989). Shel mi ata pil? Sipoor pilim (=To whom do you belong, elephant? Elephant stories). Teva Va'aretz, 31(10):34-37 [in Hebrew].
- 5432 **BqtC** THEISON, Willie. (1994). Review of "Managing elephants: an introduction to their training and management" by Alan Roocroft and Donald Atwell Zoll, published 1994 by Fever Tree Press, Ramona (California), 198 pp. ("soft cover"). Journal of the Elephant Managers Association, 5(1):46.
- 5433 **\*evU** THEODOROU, G. E. (1988). Environmental factors affecting the evolution of island endemics: the Tilos example from Greece. Modern Geology, London, 13:183-188.
- 5434 **\*gvU** THEODOROU, G. E. (1990). The dwarf elephants of Tilos. The Athenian, May, 1990:17-19.
- 5435 **LihW** THE RENEWABLE RESOURCES ASSESSMENT GROUP. (1989). The impact of the ivory trade on the African elephant population. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 5.3. The Ivory Trade Review Group, Oxford. **Annotation:** Uses population models and data on ivory trade in the last decade to estimate proportion of elephant population killed annually to supply the trade to quantify the effect this has had on population size and structure and to calculate a hunting strategy for producing the maximum sustainable ivory yield [ID-H/M&DR].
- 5436 **LewW** THOMAS, D. S. G. (1988). The nature and depositional setting of arid and semi arid Kalahari sediments, southern Africa. Journal of Arid Environments, 14:17-26.
- 5437 **\*vwU** THOMAS, H., TASSY, Pascal, and SEN, S. (1989). Paleogene proboscidean remains from the southern Dhofar (Sultanate of Oman). Abstracts of Papers and Posters Fifth International Theriological Congress, Rome, 22-29 August 1989, Volume I:166.
- 5438 **\*vwU** THOMAS, H., ROGER, J., SEN, S., BOURDILLON DE GRISSAC, C., and AL-SULAIMANI, Z. (1989). Découverte de vertébrés fossiles dans l'Oligocène inférieur du Dhofar (Sultanat d'Oman). Géobios, 22:101-120.
- 5439 **\*huU** THOMS, Alston V., KUEHN, David D., and MANDEL, Rolfe D. (1997). Mammoth remains discovered at 41BX1239. CRM News & Views, August 1997:13-16. **Annotation:** A backhoe trench excavated to assess potential for buried archeological deposits near San Antonio, Texas, exposed a dense concentration of in situ mammoth bones. Among the bones were two pieces with surface modifications that may have resulted from butchering [E/ECM].
- 5440 **LciW** THOMSEN, Jorgen B. (1988). Recent U. S. imports of certain products from the African elephant. Pachyderm, 10:1-5, 21. **Annotation:** In 1978 the African elephant was listed as threatened under the U.S. Endangered Species Act. Between 1977 and 1983, bills were introduced in the U.S. Congress prohibiting importation of elephant products. However, some authorities think there are some large populations, that if properly managed, could sustain commercial exploitation. Sources of information, volume and pattern of U.S. import of elephant products, reasons for increase or decrease in imports regarding amounts and countries that imported and exported raw and worked ivory and elephant skins between 1982 and 1987. US trade in elephant products is significant with annual declared import value of \$29.4 million between 1984-1986 and estimated retail value of at least \$100 million. Worked ivory constituted bulk of imports but in early 1980s, US was largest importer of elephant skins obtained almost exclusively from culling programs in southern African countries [ID-H/M&DR].
- 5441 **LicW** THOMSEN, Jorgen B. (1989). Conserving the African elephants: CITES fails — U.S. acts. TRAFFIC (U.S.A.), 9(1):1-3.
- 5442 **LijW** THOMSEN, Jorgen B. (1989). Ivory trade and the market profile of the United States. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 3.6. The Ivory Trade Review Group, Oxford. **Annotation:** Ivory trade and industry in United States during recent years using Custom declarations and interviews [ID-H/M&DR].
- 5443 **\*vwU** THOMPSON, B. (1993). Where have all the mammoths gone? Patina (Utah), June, in 2 parts:1-21 and 1-23.
- 5444 **LcgW** THOMSON, R. (1991). Africa's "endangered" elephants. Safari, May/June 91:34-36, 84-89. **Annotation:** Zimbabwe's pro-culling/"sustainable use" stance in CITES debate. Safari is newsletter of "Safari Club International" [MPK].
- 5445 **LiuW** THORNTON, Allan. (1989). The ivory trail. Environmental Investigation Agency, London. **Annotation:** copy of EIA text reproduced by the East African Wild Life Society, which added more data from various sources. Additional photos extend copy to 6 pages. Reviews CITES debate on elephant conservation and ivory trade, describes poaching episode, route by which ivory obtained would get to carving factory, outlines how investigative team got in to film work in factory. Reviews how findings aided Tanzanian Government officials to request listing of elephant in Appendix 1 of CITES, notes there is still much to be done to conserve elephants on long time basis [ID-H/M&DR].

- 5446 LiuW THORNTON, Allan. (1989). The ivory trail. *Greenpeace*, 14(5):6-10. **Annotation:** See Reference no. 5450 [MPK].
- 5447 LkcW THORNTON, Allan. (1991). Bogus elephant claims of South Africa and Zimbabwe. *The Animal Welfare Institute Quarterly*, 40(3):10-11. **Annotation:** "A total Appendix I for all populations of African elephants remains the only way to ensure the long-term survival of Africa's elephants" [E/JLP].
- 5448 LciW THORNTON, Allan. (1993). New expose intensifies pressure for sanctions on Taiwan and China. *The Animal Welfare Institute Quarterly*, 42(3):9. **Annotation:** Box on a substitute for ivory [MPK].
- 5449 LciW THORNTON, Allan. (1993). Zambian initiative for new wildlife law enforcement agency in Africa. *The Animal Welfare Institute Quarterly*, 42(3):8. **Annotation:** Summary of proposed "Lusaka agreement" [ECM].
- 5450 LiuW THORNTON, Allan and CURREY, Dave. (1991). *To save an elephant: the undercover investigation into the illegal ivory trade*. Doubleday, London, 213 pp.; Bantam Books, Toronto, New York (PB) 273 pp. **Annotation:** EIA investigation focused on illegal trade of ivory, responsible in 1989 for slaughter of over 2,000 elephants a week. Following story of smuggling ship running poached ivory up the coast of East Africa to Middle East, underworld of ivory smuggling syndicates including traders, poachers and double dealing officials. Reviewed by S. Keith Eltringham in "Oryx", July, 1993, and in "The Animal Welfare Institute Quarterly", Spring 1991, Vol. 40(1):13 [ID-H/M&DR] [MPK].
- 5451 LiuW THORNTON, Allan and REEVES, Ros. (1992). The spoils of war. *BBC Wildlife*, 10(2):24-25, 28. **Annotation:** Basis for placing elephants in Appendix I of CITES in 1989; what is happening in southern Africa now. Military presence in Mozambique and Angola of Zimbabwean and South African troops, respectively, provides for significant illegal ivory. Downgrading elephant from Appendix I would unleash extensive slaughter and let traders could get rid of illegal ivory [ID-H/M&DR].
- 5452 LmwW THOULESS, Chris R. (1991). A report of the Laikipia elephant count, 1990. *Pachyderm*, 14:32-36. **Annotation:** Total elephant count in Laikipia District and adjoining parts of western Isiolo and southern Samburu Districts, done in 1990, suggests minimum population of about 2,000. Much of Laikipia consists of large-scale private ranch lands, in these areas are Kenya's second largest elephant population. Their presence caused many management problems, and KWS devised Laikipia Elephant Project to tackle them. Format and results of total aerial count, yielding 2,045 animals, done in mid September [ID-H/M&DR].
- 5453 LcwW THOULESS, Chris [R.]. (1993). Long-distance movements of an unprotected population on the Laikipia Plateau, Kenya. *Pachyderm*, 16:86.
- 5454 EbkW THOULESS, Chris R. (1994). Conflict between humans and elephants in Sri Lanka. Preliminary Technical Report for GEF Project. Department of Wildlife Conservation and Protected Areas in Sri Lanka, Colombo.
- 5455 LwuW THOULESS, Chris R. (1994). Conflict between humans and elephants on private land in northern Kenya. *Oryx*, 28(2):119-127. **Annotation:** About 3,000 elephants live in the Laikipia/Samburu region of northern Kenya - largest remaining population outside country's formal protected areas. They occasionally kill or injure people, damage crops of small-scale farmers, drive cattle away from water sources and cause other problems for humans. A number of elephants have been shot for control purposes in recent years, others have died from poisoning, snares or spearing. The author examines the conflict and makes suggestions for resolving some of the problems [ID-H/M&DR].
- 5456 LbwW THOULESS, Chris R. (1995). Long distance movements of elephants in northern Kenya. *African Journal of Ecology*, 33(4):324-334. **Annotation:** Movements of elephants of Samburu and Laikipia Districts in northern Kenya studied between 1990 and 1992 included radio-collaring and tracking twenty females. Total population of about 3,000 animals is largest in Kenya living primarily outside protected areas. Radio tracking indicated about 800 animals moved distance of up to 1,400 km north from cattle ranches in Laikipia to drier pastoral areas in Samburu twice a year in rainy season. This seems to be regular migration between small dry season ranges and larger wet season ranges. Until the 1970s, majority of elephants in this area were resident in the Samburu range area and the long distance movements may be result of change in dominant vegetation on Laikipia from grassland to bushland and increase in number of permanent water sources combined with upsurge in poaching in Samburu. Competition for water with growing human population in Samburu in contrast to abundant permanent water sources and little human disturbance in Laikipia range lands may be part of reason for continued movements [ID-H/M&DR].
- 5457 LwbW THOULESS, Chris [R.]. (1996). Home ranges and social organization of female elephants in northern Kenya. *African Journal of Ecology*, 34(3):284-297.
- 5458 LkcW THOULESS, Chris [R.]. (1996). How to immobilise elephants. In *Studying elephants* (ed. K. Kangwana), pp. 164-170. African Wildlife Foundation, Nairobi, Kenya, 178 pp.
- 5459 LmwW THOULESS, Chris [R.]. (1996). Satellite tracking of elephants. In *Studying elephants* (ed. K. Kangwana), pp. 120-125. African Wildlife Foundation, Nairobi, Kenya, 178 pp. **Annotation:** Compares conventional VHF tracking and satellite tracking, reviews equipment and notes future developments, including integrating GPS [ID-H/M&DR].
- 5460 LmwW THOULESS, Chris R. (1998). Presentation: Predicting human-elephant conflict. *Pachyderm*, 25:94-95. **Annotation:** Suggestion to use African Elephant Database to predict where human-elephant conflict will worsen, and likely become a problem [E/ECM].
- 5461 LmcW THOULESS, Chris R. (1998). Presentation: Proposal for incorporation of grid-based data into the African Elephant Database. *Pachyderm*, 25:93-94. **Annotation:** Data on estimates of elephant numbers within the AED are well documented however, the quality of information on range is much poorer and inadequately documented. It is proposed to include grid-based distributional information within the database, based on a quarter degree geographic grid system [E/ECM].
- 5462 LbwW THOULESS, Chris R. (1998). Variability in ranging behaviour of elephants in northern Kenya. *Pachyderm*, 25:67-73 [in English with English and French abstracts]. **Annotation:** The elephants of Laikipia and Samburu Districts in northern Kenya range over a large variety of habitats and there is great variability in home ranges within the population. The elephants' movements were studied intensively in 1990 and 1992 and monitoring has continued for an additional five years [E/ECM].
- 5463 LmwW THOULESS, Chris R. and DYER, A. (1992). Radio-tracking of elephants in Laikipia District, Kenya. *Pachyderm*, 15:34-39. **Annotation:** One of Kenya's largest elephant populations lives for much of the year on private land in Laikipia District where they migrate for security reasons. The ranches are now being sold for small-scale farming settlement schemes, thus the elephants are increasingly coming

- into conflict with people. The Laikipia Elephant Project was established to find ways to reduce this conflict. An essential step towards their conservation was to gain information on their movements. Both satellite and conventional VHF collars have been used. Thus far satellite tracking, generally used in higher latitudes, has not proved satisfactory. The paper describes technical aspects of the conventional VHF tracking program and presents some initial results [ID-H/M&DR].
- 5464 LckW THOULESS, Chris R. and SAKWA, Jim S. (1995). Elephant fences in northern Kenya. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 523-528. Bombay Natural History Society, Bombay. Oxford University Press, 535 pp. **Annotation:** Electric fences and other barriers to prevent movement of elephants onto arable land are important conservation tools as elephant populations become isolated by increased human populations in Africa. There are about 2,500 elephants in Laikipia District, which consists of ranches and small scale arable farms. More settlements and changes in elephant range correlates with increased crop raiding. Many types of barriers have been built in last 20 years. There was little relationship between effectiveness of fences and factors of design such as high voltage. Previous experience of elephants with electric fences in an area, and the consistency of control measures, were more important than design criteria [ID-H/M&DR].
- 5465 LckW THOULESS, Chris R. and SAKWA, J. (1995). Shocking elephants: fences and crop raiders in Laikipia District, Kenya. *Biological Conservation*, 72:99-107. **Annotation:** As elephant populations become increasingly isolated by human population and agriculture, electric fences and other barriers become important conservation tools. Experiences in Laikipia area show type of fence does not deter elephants as much as previous experience with fences and backup management such as shooting of leading fence-breakers. Conservation efforts should concentrate on improved active management rather than barrier design [ID-H/M&DR].
- 5466 LmwW THOULESS, Chris R., HOARE, Richard E., and MULAMA, Martin S. (1992). Satellite tracking of elephants in Laikipia District, Kenya. *Pachyderm*, 15:28-33. **Annotation:** Though satellite tracking is successful for other species, it is hard to design a suitable satellite collar for elephants. Most studies of movement have been done using conventional radio transmitters. This study, on Ol Ari Nyari Ranch in Laikipia District, tried to develop satellite transmitters for elephants and test their effectiveness in the field. Methods, value and cost-effectiveness of results in comparison with those from conventional radio tracking [ID-H/M&DR].
- 5467 LcwW THRASH, I., NEL, P. J., THERON, G. K., and BOTHMA, J. du P. (1991). The impact of the provision of water for game on the woody vegetation around a dam in the Kruger National Park. *Koedoe*, 34(2):131-148.
- 5468 EimB TIEDEMANN, R. and KURT, F. (1995). A stochastic simulation model for Asian elephant *Elephas maximus* populations and the inheritance of tusks. *Acta Theriologica*, Supplement 3:111-124.
- 5469 LnoW TIESZEN, L. L., BOUTTON, T. W., OTTICHILO, Wilbur K., NELSON, D. E., and BRANDT, D. H. (1989). An assessment of long-term food habits of Tsavo elephants based on stable carbon and nitrogen isotope ratios of bone collagen. *African Journal of Ecology*, 27(3):219-226. **Annotation:** Stable carbon and nitrogen isotope ratios of bone collagen from elephants that died in TNP, between 1975 and 1980 was determined in an attempt to establish possible changes in past diets. Individuals ranged from the age of 1 to 50 at the time of death. Values for carbon were independent of age at the time of death which suggests that these elephants assimilated similar proportion of C3 (tree and shrub) and C4 (grass) vegetation during the sixty year period covered by the specimens. Fecal analyses showed high interindividual variation in the proportion of foods eaten, but the mean intake was similar to that estimated from the bone collagen, about 75% trees and shrubs. These data suggest that, in TNP, elephants have maintained similar proportions of types of vegetation in their diet in spite of the fact that the woodlands appear to have been converted to grasslands over the past fifty years [ID-H/M&DR]. See Reference no. 5541 [MPK].
- 5470 BhzB TIMBS, Lamy. (1992). The town that hanged an elephant. *The Herald*, August, 1D, 4D [in *EMA Newsletter*, 3(3):29-30].
- 5471 LiuW TISDALE, Sallie. (1989). A reporter at large: the only harmless great thing. *The New Yorker*, January 23:38-40, 42, 46-48, 77-82, 84-89.
- 5472 EcgB TISDELL, Clement A. and XIANG, Zhu. (1996). Tourism development and nature conservation in Xishuangbanna, Yunnan: a case study. *Tigerpaper*, 23(2):20-28. **Annotation:** Development of ecotourism sites in one of the few remaining tropical forests in China, includes Xishuangbanna State Nature Reserve where sole group of wild Asian elephants in China live; a captive elephant is kept at Mengyang Subreserve with tourism encouraged with a butterfly farm and other wildlife attractions [SLS].
- 5473 \*vwU TOBIEN, Heinz. (1988). Contributions a l'Étude du Gisement Miocène Supérieur de Montredon (Herault). *Les Grands Mammifères. 7 - Les Proboscidiens Deinotheriidae — Palaeovertebrata*. *Mémoire Extraordinaire*, 1988:135-175.
- 5474 \*evU TOBIEN, Heinz. (1988). Some major features in the evolution of mastodons (Proboscidea, Mammalia). *Geological Survey of India, Special Publication* No. 11, 2:109-116.
- 5475 \*evU TOBIEN, Heinz. (1990). Proboscidea: a preliminary note. *Journal of Human Evolution*, 19:465-469.
- 5476 \*avU TOBIEN, Heinz. (1996). Evolution of zygodons with emphasis on dentition. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 76-85. Oxford University Press, 472 pp.
- 5477 \*vwU TOBIEN, Heinz, CHEN, G. F., and LI, Y. Q. (1988). Mastodons (Proboscidea, Mammalia) from the late Neogene and early Pleistocene of the People's Republic of China. Part 2. The genera *Tetralophodon*, *Anancus*, *Stegotetabelodon*, *Zygodon*, *Mammot*, *Stegolophodon*. Some generalities on the Chinese mastodons. *Mainzer Geowissenschaftliche Mitteilungen*, 17:95-220.
- 5478 +avB TODD, Nancy E. (1997). Comparison of variation in cranial and dental morphology of *Elephas recki* and the extant elephants: implications for phylogeny and macroevolution. D. Phil. Thesis, George Washington University, 422 pp.
- 5479 +avB TODD, Nancy E. and ROTH, V. Louise. (1996). Origin and radiation of the Elephantidae. In *The Proboscidea: evolution and palaeoecology of elephants and their relatives* (ed. J. Shoshani and P. Tassy), pp. 193-202. Oxford University Press, 472 pp. **Annotation:** *Loxodonta africana*, *Elephas maximus*, systematics, evolution [MPK].
- 5480 BqtC TODHUNTER, Andrew. (1994). Review of "Night after night" by Diana Starr Cooper, published 1994 by Island Press/Shearwater Books, Washington, D.C., 173 pp. *Smithsonian*, August 1994:102-103.
- 5481 \*vaU TOMENCHUK, John and LAUB, Richard S. (1995). New insight into late-Pleistocene bone technology at the Hiscock Site, western New York State. *Current Research in the Pleistocene*, 12:74-74. **Annotation:** Report of culturally modified bone, mostly *Mammot americanum* [RSL].

- 5482 \*vmU TOMIDA, Yukimitsu and YASUNO, Toshikatsu. (1993). Discovery of a proboscidean fossil from the early-middle Miocene of Fukui Prefecture, central Japan, and its implication. Bulletin of the Japan Sea Research Institute, Kanazawa University, 25:35-45 [in Japanese with English abstract].
- 5483 LucW TOWNSEND, M. H. C. (1992). Zimbabwe's position on the ivory ban. Swara, 15(1):13-15. **Annotation:** Position of conservation based NGOs in Zimbabwe on ivory ban. Compares wildlife management attitudes, with particular reference to elephants, in Zimbabwe and Kenya [ID-H/M&DR].
- 5484 LicW TRAIN, Russell E. (1991). A reply to "Farewell to Africa?" Audubon, 91(1):104-106.
- 5485 BmuW TRENSE, W. (1989). The big game of the world. Paul Parey, Hamburg, 400 pp.
- 5486 LewW TREVOR, Simon. (1992). Elephant as architect. BBC Wildlife, 10(9):50-54. **Annotation:** Ecological change brought about by what was initially considered devastating losses in tree cover from excess elephant browsing. Elephant as instrument in habitat modification, ecological cycles and balance in TNP [ID-H/M&DR].
- 5487 LjwW TROLLOPE, W. S. W., TROLLOPE, L. A., BIGGS, H. C., PIENAAR, D., and POTGEITER, A. L. F. (1998). Long term changes in the woody vegetation of the Kruger National Park, with special reference to the effects of elephants and fire. Koedoe, 41(2):103-112. **Annotation:** Current density and structural diversity of woody vegetation as it is affected by elephants and fire [E/ECM].
- 5488 LuiW 'T SAS-ROLFES, Michael. (1997). Elephants, rhinos and the economics of the illegal trade. Pachyderm, 24:23-29. **Annotation:** "Wildlife trade problems will only be solved by controlling supply, i.e., by adequate field protection" (p. 29) [E/SLS].
- 5489 \*evU TSCHIRHART, Don. (1987). Hipbone connected to the... The Detroit News, December 21:3B. **Annotation:** "Like Humpty Dumpty, Iki the elephant is in pieces — and a Wayne State University professor (Jeheskel Shoshani) and his students are trying to put it back together again." "Iki" is on display at Science and Engineering Library, WSU, Detroit [E/ECM].
- 5490 \*avU TSOUKALA, Evangelia and LISTER, Adrian. (1998). Remains of straight-tusked elephant, *Elephas (Palaeoloxodon) antiquus* Falc. & Caut. (1847) ESR-dated to oxygen isotope Stage 6 from Grevena (W. Macedonia, Greece). Bolletino della Società Paleontologica Italiana, 37(1):117-139 [in English, with abstract in English and Italian]. **Annotation:** Partial skeleton of straight-tusked elephant, which died at about 40 years of age. Additional remains: fragments of at least one other individual of same genus and species. Three samples of tooth enamel were ESR-dated, giving age in range 160-170 thousand years BP, indicating Greece as a refugium of temperate, woodland-adapted large mammal species at a time when they were largely excluded from northern and central Europe [E/ECM, abstract].
- 5491 LbzC TUCKER, Neely. (1997). Finding love among strangers. The Detroit Free Press, August 9, 1997, pp. 1A, 6A. **Annotation:** "Nzo", an elephant, was brought to the Imire Game Reserve when she was less than two years old, where she lived with a herd of Cape buffalo. Attempt was made to breed Nzo with a bull elephant but she killed him, which is unusual, because elephants don't usually kill one another. She has killed 14 males buffaloes who have tried to take control of the herd. She gets along with female buffaloes [ECM]. This behavior of one species adapting to live with another species and not recognizing its own is possibly a result of imprinting at an early age [JS].
- 5492 BicW TUDGE, Colin. (1994). Asia's elephants: no place to hide. New Scientist, 141(1908):34-37. **Annotation:** African elephants are being killed for their ivory, but Asians are being threatened just as surely by subtler forces [E/ECM].
- 5493 BrqC TUDGE, Colin. (1994). Why the world needs a British herd of breeding elephants. In Proceedings of the Seventh U.K. Elephant Workshop, hosted by Cricket St Thomas Wildlife Park, Somerset, 20th October 1993 (ed. N. G. Spooner and J. A. Whitear), pp. 104-111. Published by North of England Zoological Society.
- 5494 BqzC TUMULTY, Karen. (1995). Tax cuts and circuses. Time Newsmagazine, 145(16):32-33. **Annotation:** In the normally quiet, heavily guarded parking lot of the Capitol Building, 13 elephants, including "King Tusk" ("Tommy"), from the Ringling Brothers and Barnum & Bailey Circus paraded, leading an entourage of dancing dogs and clowns [E/ECM].
- 5495 EcwW TUOC, D. (1989). Elephants in Vietnam. Scientific and Technical Newsletter of Forest Department, Hanoi, No:2.
- 5496 EwmB TUOC, D. and SANTIAPILLAI, Charles. (1991). The status of elephants in Vietnam. IUCN/SSC Asian Elephant Specialist Group Newsletter, 7:2-8. **Annotation:** Elephants in 22 areas number 1,459-1,631 according to 1988-1989 estimates [JLP].
- 5497 LmwW TURKALO, Andrea K. (1996). Counting forest elephants. Wildlife Conservation, 99(2):8. **Annotation:** *Loxodonta [africana] cyclotis*; Central African Republic, Dzanga, Ndoki, population, salt-lick. See Reference no. 5500 [MPK].
- 5498 LcwW TURKALO, Andrea K. (1996). Studying elephants by direct observation in the Dzanga clearing: an update. Pachyderm, 22:59-60.
- 5499 LcwW TURKALO, Andrea and FAY, J. Michael. (1994). The Dzanga clearing: a clear view of the forest elephant (Section A). In Forest elephant biology in Dzanga-Sangha, Central African Republic. AECCG/EDG, Oxford, 23 pp.
- 5500 LmbW TURKALO, Andrea and FAY, J. Michael. (1995). Studying forest elephants by direct observation: preliminary results from the Dzanga Clearing, Central African Republic. Pachyderm, 20:45-54. **Annotation:** Daylight observations in a bai or forest clearing with a wet sandy soil substratum from which elephants obtain water by creating waterholes have provided identification of individuals as well as analysis of group structure and behavioral aspects of forest elephants. Elephants which are observed from a seven meter high platform at the edge of the clearing have been present in over 99% of the 1,800 observation hours. The high calcium and other contents of the water may be partially responsible for the high number of animals visiting the clearing, but the clearing itself provides a location for social activity that is not feasible in the forest itself. The number of males and females observed is very similar and large tusked old males make up 7% of the population, however, the presence of males is significantly higher during the wet season. Evidence suggests that the migratory population in the Dzanga Sangha-Nouabale Ndoki complex is comprised of males. The low birthrate and the equity between sexes suggest a stable, non-poached population; cf. Reference no. 3042 [ID-H/M&DR].
- 5501 ErqC TURKINGTON, John. (1991). Asian elephant pregnancy and birth at Port Lympne. In The fifth elephant workshop. Held at Windsor Safari Park, Windsor, United Kingdom, 20 September 1991, pp. 37-39. **Annotation:** Pregnancy and stillbirth of twin bull calves [ECM].
- 5502 LdcW TURNBULL, P. C. B., BELL, R. H. V., SAIGAWA, K., NUMYENEMBE, F. E. C., MULENGA, C. K., and MAKALA, L. H. C. (1991). Anthrax in wildlife in the Luanagwa Valley, Zambia. Veterinary Record, 128(17):399-403.
- 5503 LdcW TURNBULL, P. C. B., CARMAN, J. A., LINDEQUE, P. M., JOUBERT, F., HUBSCHLE, O. J. B., and SNOEYENBOS, G. H. (1989). Further progress in

- understanding anthrax in the Etosha National park. *Madoqua*, 16(2):93-104.
- 5504 \*evU TURNER, Elaine. (1991). Pleistocene stratigraphy and vertebrate faunas from the Neuwied Basin region of western Germany. *Cranium*, 8(1):21-34. **Annotation:** Pleistocene vertebrate faunas have been found in the Neuwied Basin area of western Germany since end of 19th century. Results of new research into stratigraphy and biostratigraphy of the sites [E/ECM, summary].
- 5505 LbjC TURNER, P. A. (1990). A study of activity patterns and neighbour associations in a group of captive African elephants (*Loxodonta africana*). BSc thesis, University of East Anglia, Norwich.
- 5506 \*ovU TUROSS, N. (1989). Albumin preservation in the Taima-taima mastodon skeleton. *Applied Geochemistry*, 4:255-259.
- 5507 \*ovU TUROSS, N., FOGEL, M. L., and HARE, P. E. (1988). Variability in the preservation of the isotope composition of collagen from fossil bone. *Geochemica et Cosmochemica Acta*, 52:929-935.
- 5508 LcwW TURTON, David. (1995). The Mursi and the elephant question. In *Participatory wildlife management workshop, proceedings 16-18 May 1995*. MoNRDEP/FARM Africa, Addis Ababa, pp. 25-39.
- 5509 LcwW TUTIN, Caroline, E. G., WHITE, Lee J. T., and MACKANGA-MISSANDZOU, A. (1997). The use by rain forest mammals of natural forest fragments in an equatorial African savanna. *Conservation Biology*, 11(5):1190-1203.
- 5510 BqgC TUTTLE, C. Dale. (1988). Elephant management in changing times. In *Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988*, pp. 73-77. Jacksonville Zoological Park, Florida, 145 pp.
- 5511 BqgC TUTTLE, C. Dale. (1991). Elephant management: meeting the challenge. *Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991*, pp. 1-12. Burnet Park Zoo, Syracuse, 161 pp.
- 5512 BqtC TUTTLE, C. Dale. (1992). Elephants in captivity. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 184-189, 191-193. Rodale Press, Emmaus (Pennsylvania), 240 pp. **Annotation:** *Loxodonta africana*, *Elephas maximus*, working, reproduction, history [MPK].
- 5513 EwmW TYAGI, P. C. (1995). Conservation of elephant in Mudumalai - management strategies. In *A week with elephants* (ed. J. C. Daniel and H. S. Datye), pp. 127-144. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 5514 EbqC UDURAWANA, Palitha. (1998). Experience in managing elephants in captivity. Abstract presented at *National Symposium on Elephant Management and Conservation* (ed. Jayantha Jayewardene and Charles Santiapillai), p. 27. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 5515 LcwW UGANDA, MINISTRY OF TOURISM, WILDLIFE AND ANTIQUITIES. (1996). *A survey of the wildlife protected areas of Uganda. Phase I: September 1995-January 1996*. MTWA, Kampala, v, 169 pp.
- 5516 LcwW UGANDA, MINISTRY OF TOURISM, WILDLIFE AND ANTIQUITIES. (1996). *A survey of the wildlife protected areas of Uganda. Phase II: April-June 1996*. MTWA, Kampala, iii, 82 pp.
- 5517 \*evU UKRAINTSEVA, V. V. (1993). *Vegetation cover and environment of the mammoth epoch in Siberia*. Mammoth Site, Hot Springs, South Dakota, 309 pp. **Annotation:** "Looking at paleoecology and paleoenvironment from the gut content and surrounding sediments from animals found in the Siberian permafrost" [E/JS].
- 5518 BqnC ULLREY, Duane E. (1988). An overview of elephant nutrition. In *Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988*, pp. 122-127. Jacksonville Zoological Park, Florida, 145 pp.
- 5519 BdoC ULLREY, Duane E., WILLIAMS, K. J., KU, P. K., LEWANDOWSKI, A. H., and SIKARSKIE, J. G. (1998). Pharmacokinetics of biotin in horses and elephants. *Proceedings of Joint Conference of the American Association of Zoo Veterinarians*, Toronto, pp. 203-204.
- 5520 EjqC ULRICH, Ward G. (1995). Elephants need homes and jobs. *BBC Wildlife*, 13(6):61. **Annotation:** "Thailand: as another domesticated animal goes berserk and is killed, attention is called to problems from slums to fragmented forests" [E/ECM].
- 5521 EjcW ULRICH, Ward G. (1995). Not fighting the problem. *BBC Wildlife*, 13(8):62. **Annotation:** "Thailand: elephants raiding your crops? Why not switch to cattle? Thai villagers... don't have to domesticate elephants to live with them" [E/ECM].
- 5522 BqgC UPCHURCH, Bruce and HOUCK, John H. (1991). Elephant management at Point Defiance Zoo & Aquarium. *Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991*, pp. 131-134. Burnet Park Zoo, Syracuse, 161 pp.
- 5523 EcgW UPRETI, B. N. (1989). Conservation of fauna and flora in Nepal. *Tigerpaper*, 16(2):1-5.
- 5524 \*avU VADER, Wim. (1992). Opmerkelijke vondst: Schedel van *Mammuthus primigenius*. *Cranium*, 9(1):39.
- 5525 \*iyU VALDE-NOWAK, P., NADACHOWKI, A., and WOLSAN, M. (1987). Upper Palaeolithic boomerang made of a mammoth tusk in south Poland. *Nature*, 329:436-438.
- 5526 \*ovU VALENTINE, J. W. (1990). Current research: molecules of the early fossil record. *Paleobiology*, 16(1):94-95.
- 5527 LoxW VAN AARDE, R. (1996). Developments with hormonal contraceptives for elephants. *Pachyderm*, 22:86. **Annotation:** See Reference nos. 2963, 2995, 4131, 4777, 4786, 5098 [ECM].
- 5528 LapB VAN ASWEGEN, G., SCHOEMAN, J. H., DE VOS, V., VAN NOORDEN, Susan. (1994). The oesophagus and stomach of the African elephant: a histological, immunocytochemical and immunofluorescence study. *Onderstepoort Journal of Veterinary Research*, 61(3):223-229.
- 5529 LapB VAN ASWEGEN, G., VAN NOORDEN, Susan, KOTZE, Sanet H., DE VOS, V., and SCHOEMAN, J. H. (1996). The intestine and endocrine pancreas of the African elephant: histological, immunocytochemical and immunofluorescence study. *Onderstepoort Journal of Veterinary Research*, 63(4):335-340.
- 5530 \*uiU VAN COUVERING, John A. (1992). Proboscideans, hominids, and prehistory. In *Elephant: the animal and its ivory in African culture* (ed. D. H. Ross), pp. 63-77. Fowler Museum of Cultural History, University of California, Los Angeles, xxiv + 424 + ix pp.
- 5531 \*vwU VAN COUVERING, J[ohn]. A. and HARRIS, J. A. (1991). Late Eocene age of Fayum mammal faunas. *Journal of Human Evolution*, 21:241-260.
- 5532 EaoB VANDEBONA, H., GUNASEKERA, M. B., GOONESEKERA, N. C. W., KODIKARA, D. S., and RATNASOORIYA, W. D. (1997). The use of the human DNA probe 33.15 to detect genetic heterogeneity of the Sri Lankan elephant population. *Proceedings of the 53rd Sessions of the SLAAS*, p. 219.

- 5533 LbcW VAN DE KOPPEL, Johan and PRINS, Herbert H. T. (1998). The importance of herbivore interactions for the dynamics of African savanna woodlands: an hypothesis. Journal of Tropical Ecology, 14(5):565-576.
- 5534 \*avU VAN DEN BERGH, Gert D. (1990). Sulawesi (Celebes): faunistisch en geologisch ontmoetingspunt der aard schollen. Cranium, 7(2):68-76. **Annotation:** Describes four fossil mammals: *Celebochoerus heekereni* (an endemic pig), *Elephas celebensis*, *Stegodon sompoensis*, and *Stegodon cf. trigonocephalus* [ECM].
- 5535 \*vwU VAN DEN BERGH, Gert D., AZIZ, Fachroel, SONDAAR, Paul Y., and DE VOS, John. (1994). The first *Stegodon* fossils from central Sulawesi and a new advanced *Elephas* species from south Sulawesi. Geological Research and Development Centre, Bulletin no. 17:22-39.
- 5536 \*vwU VAN DEN BERGH, Gert D., AZIZ, Fachroel, SONDAAR, Paul Y., and HUSSAIN, S. T. (1992). Taxonomy, stratigraphy and paleozoogeography of Plio-Pleistocene proboscideans from the Indonesian islands. Bulletin of the Geological Research and Development Centre, Paleontological Series, 7:28-58.
- 5537 \*ewU VAN DEN BERGH, Gert D., SONDAAR, Paul Y., DE VOS, John, and AZIZ, Fachroel. (1996). The proboscideans of the southeast Asian islands. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 240-248. Oxford University Press, 472 pp. **Annotation:** Extinct proboscideans, evolution, Sulawesi, Indonesia, Java, Flores, Borneo, Sumba, Timor, Philippines [MPK].
- 5538 LicW VAN DER MERWE, Nikolaas J. (1993). On the trail of ivory. Custos, August:20-23.
- 5539 LiuW VAN DER MERWE, Nikolaas J. (1994). Horn and ivory: isotopes may control trade. Swara, 17(5):10-11. **Annotation:** Results published from studies (Reference nos. 5542, 5543, 5587) focused on assessing the source of ivory by way of isotopic analysis. Assessing the ratios of the stable isotopes of carbon, nitrogen and strontium in tusks from 24 localities from across the continent, van der Merwe's group illustrated that the source could be traced. Focusing on southern African locations and analyzing for lead isotopes and well as the other three, Vogel's group were able to confirm it would be possible to characterize ivory from specific areas within the region [ID-H/M&DR].
- 5540 LapW VAN DER MERWE, Nikolaas J., BEZUIDENHOUT, A. J., and SEEGERS, Christina D. (1995). The skull and mandible of the African elephant (*Loxodonta africana*). Onderstepoort Journal of Veterinary Research, 62(4):245-260. **Annotation:** Clearly written and illustrated; cf. Reference nos. 2890, 5220-21 [JS].
- 5541 LncW VAN DER MERWE, Nikolaas J., LEE THORPE, Julia A., and BELL, R. H. V. (1988). Carbon isotopes as indicators of elephant diets and African environments. African Journal of Ecology, 26(2):163-172. **Annotation:** Stable carbon isotope ratios have been carefully used to assess modern animal diets and to reconstruct prehistoric diets of animals and humans.  $^{13}C/^{12}C$  ratio measurements of bone collagen were used in study of diets of African elephants in 12 wildlife refuges. Represent most of habitats in which elephants live, including such diverse plant communities as primary rain forest, savanna woodland and desert.  $^{13}C$  values were found to have simple linear relationship with tree density in most cases. When translated into relative amounts of dietary browse (C3 plants) and graze (C4 plants), grass content is seen to be systematically under-represented, presumably due to inefficient metabolism. This does not affect relationship between elephant diet and tree density, which has implications for study of elephant-woodland interactions, and for reconstructions of past African environments; cf. Reference no. 5469 [ID-H/M&DR].
- 5542 LiuW VAN DER MERWE, Nikolaas J., LEE THORPE, J. A., THACKERAY, J. F., HALL-MARTIN, Anthony J., KRUGER, F. J., COETZEE, H., BELL, R. H. V., and LINDEQUE, Malan. (1990). Identifying ivory. The Rhino & Elephant Journal, 4:12-13. **Annotation:** Pilot study using bone and ivory samples from 100 elephants from several range states in Africa to identify source locations through spectroscopic analysis of isotopes of carbon, nitrogen and strontium to identify source of tusks and bone [ID-H/M&DR].
- 5543 LicW VAN DER MERWE, Nikolaas J., LEE-THORPE, J. A., THACKERAY, J. F., HALL-MARTIN, Anthony, KRUGER, F. J., COETZEE, H., BELL, R. H. V., and LINDEQUE, Malan. (1990). Source-area determination of elephant ivory by isotopic analysis. Nature, 346(6286):744-746. **Annotation:** Isotopic analysis of bone and ivory from specimens from 100 adult elephant from western, eastern and southern Africa suggest that isotopic analysis can be utilized to indicate geographic or source location of ivory. Correlation between nitrogen and carbon reflect a relationship between climate and vegetation and strontium reflects the local geology. Trivariate isotopic analysis of the three elements can be utilized to identify the area in which the elephant lived; cf. Reference no. 5587 [ID-H/M&DR].
- 5544 \*avU VAN DER MEULEN, S. (1991). Mammoetresten (*Mammuthus primigenius*) uit een in-situ positie in het noordoosten van Nederland (Grou, Friesland). Cranium, 8(2):63-64. **Annotation:** A rib and a tusk fragment of *Mammuthus primigenius* were found in a construction pit near Grou, northeastern Netherlands [ECM].
- 5545 \*vaU VAN ESSEN, Hans and MOL, Dick. (1987). Een afwijkende mammoetschedel uit de waal. Cranium, 4(1):30-40 [summary in English]. **Annotation:** A case of severe alveolar damage in a skull of *Mammuthus primigenius* from the Netherlands is described [E/ECM].
- 5546 \*avU VAN ESSEN, Hans and MOL, Dick. (1996). Plio-Pleistocene proboscideans from the southern bight of the North Sea and the Eastern Scheldt, The Netherlands. In The Proboscidea: evolution and palaeoecology of elephants and their relatives (ed. J. Shoshani and P. Tassy), pp. 214-224. Oxford University Press, 472 pp.
- 5547 LaqC VAN GELDER, Richard G. (1991). A big pain: whatever was the matter with Jumbo? Natural History, 3/91:22, 24-27. **Annotation:** Includes photos of "Jumbo" and a cast of his maloccluded teeth [JS].
- 5548 \*wvU VANGENGEIM, E. A. and PEVSNER, M. A. (1991). The Villafranchian of the USSR: bio- and magneto-stratigraphy. In Palaeogeography and biostratigraphy of the Pliocene and Anthropogene, pp. 124-145. Geological Institute, USSR Academy of Sciences, Moscow, total pages not provided.
- 5549 \*vwU VANGENGEIM, E. A., VEKUA, M. L., ZHEGALLO, V. I., PEVSNER, M. A., TAKTAKISHVILI, I. G., and TESAKOV, A. C. (1991). Position of the Taman faunal complex on the stratigraphic and magnetochronological scales. Byulletin Komissii po Izucheniyu Chetvertichnogo Perioda, 60:41-52.
- 5550 LecW VAN HEERDEN, J. AND PENZHORN, B. L. (eds). (1995). Proceedings of a symposium of the African elephant as a game ranch animal, Kruger National Park, April 29-30, 1991. South African Veterinary Association Wildlife Group, Onderstepoort, South Africa, 146 pp.
- 5551 \*avU VAN KOLFSCHOTEN, Thijs. (1990). The evolution of the mammal fauna in the Netherlands and the Middle Rhine area (Western Germany)

- during the late middle Pleistocene. Mededelingen RGD, 43:1-67.
- 5552 \*vaU VAN KOLFSCHOTEN, Thijs. (1994). De mammoetschedel van Bergharen. Cranium, 11(1):49-50.
- 5553 \*hvU VAN KOLFSCHOTEN, Thijs and MOL, Dick. (1993). De mammoeten en de neushoorn van Orvelte (Drenthe). Cranium, 10(2):101-111.  
**Annotation:** "Remains of both the woolly mammoth and the woolly rhinoceros were discovered during the sinking of a shaft for the pipeline network of the Nederlandse Gasunie... The woolly mammoth remains (*Mammuthus primigenius*) represent at least 3 and maybe even 4 individuals" [E/ECM].
- 5554 LjcW VANLEEUEWE, Hilde, GAUTIER-HION, Annie, and CAJANI, Simona. (1997). Forest clearings and the conservation of elephants (*Loxodonta africana cyclotis*) in north-east Congo Republic. Pachyderm, 24:46-52. **Annotation:** "In Congo, with its impoverished economic and fractured political conditions, organised illegal hunting for ivory would be easy and the benefits potentially large. The future of elephant populations could be dangerously compromised quite rapidly. Regionally adapted protection measures are needed for forest areas such as northeast Congo" [E/SLS].
- 5555 \*avU VANOVERSTRAETEN, Mireille, VAN GYSEL, Jean, TASSY, Pascal, SENUT, Brigitte, and PICKFORD, M. (1990). Découverte d'une molaire éléphantine dans le Pliocène de la région d'Ishasha, Park National des Virunga, sud du lac Édouard, Province du Kivu, Zaire. Comptes Rendus de l'Académie des Sciences, Paris, t. 311, Série II, 887-892.
- 5556 LucW VAN ROOYEN, Nico. (1995). The hunting potential of elephants [Die jagpotensiaal van olifante]. Proceedings of a symposium of the African elephant as a game ranch animal, Kruger National Park, April 29-30, 1991 (eds. J. van Heerden and B. L. Penzhorn), pp. 64-69. South African Veterinary Association Wildlife Group, Onderstepoort, South Africa, 146 pp.
- 5557 EceW VARMAN, K. Surendra. (1995). Mudumalai Wildlife Sanctuary. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 7-17. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 5558 EmwW VARMAN, K. Surendra, RAMAKRISHNAN, Uma, and SUKUMAR, Raman. (1995). Direct and indirect methods of counting elephants: a comparison of results from Mudumalai Sanctuary. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 331-339. Bombay Natural History Society, Bombay. Oxford University Press, 535 pp.
- 5559 \*vwU VARTANYAN, S. L., GARUTT, Vadim E., and SHER, Andrei V. (1993). Holocene dwarf mammoths from Wrangel Island in the Siberian Arctic. Nature, 362(6418):337-340. **Annotation:** Isolated group that lived till about 4,000 years ago [MPK].
- 5560 EaoB VASANTHATHILAKE, V. W. S. M. (1994). Port-mortem report on a wild elephant found dead in Wasgomuwa National Park, Sri Lanka. Gajah, 12:55-57.
- 5561 EgmW VENEVONGPHET. (1988). The status of the elephant in Laos. In Proceedings of the IUCN/SSC Asian Elephant Specialist Group Meeting, Chiangmai, Thailand, January, 1988 [no first initial for Venevongphet].
- 5562 EwmW VENEVONGPHET. (1995). The status of elephant in Laos. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 123-126. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 5563 \*aiU VERESHCHAGIN, N. K. and TIKHONOV, A. N. (1987). A study of mammoth tusks from permafrost of northeastern Siberia. Current Research in the Pleistocene, 4:120-122.
- 5564 \*avU VERESHCHAGIN, N. K. and TIKHONOV, A. N. (1990). Exterior of the mammoth. Yakutsk Republican commission for the Study of Mammoths [in Russian], total pages not provided. **Annotation:** See Reference 5565 [JS].
- 5565 \*avU VERESHCHAGIN, Nikolai K. and TIKHONOV, Alexei N. (1999). Exterior of the mammoth. Cranium, 16(1):1-48. **Annotation:** Entire issue is devoted to an English translation of the book "Exterior of the mammoth", published in 1990. The first scientific work in Russia or elsewhere subjecting to a comprehensive analysis the most diverse and often erroneous but widely accepted opinions about the exterior features of the mammoth [summary in Dutch]. See Reference no. 5564 [E/ECM].
- 5566 \*hvU VERESHCHAGIN, N. K. and TOMIRDIARO, S. V. (1999). Taphonomic research in permafrost regions: a survey of past and present studies in the former Soviet Union. Deinsea, 6:187-198. **Annotation:** See Reference no. 3720 for details about "Deinsea 6" [ECM/JS].
- 5567 LcwW VERSI, Anver. (1995). How to solve an elephantine problem. New African Life, 23:9-11.
- 5568 BciB VIGNE, Lucy. (1990). Horizons: recent follow-up to the ivory ban. Swara, 13(2):33-34. **Annotation:** A report on the vote in October 1989 at the CITES conference to move the African elephant from Appendix II to Appendix I and some notes on reservations taken by signatory countries and further implications [SLS].
- 5569 EicW VIGNE, Lucy. (1991). The collapse of India's ivory industry. Pachyderm, 14:28.
- 5570 LiuW VIGNE, Lucy and MARTIN, Esmond Bradley. (1993). Ethiopia's active trade in ivory. Swara, 16(6):28-29. **Annotation:** Active ivory carving industry and tourism trade to Ethiopia; effects on elephant population, implications for poaching in neighboring states [ID-H/M&DR].
- 5571 LucW VIGNE, Lucy and MARTIN, Esmond Bradley. (1998). Sand rivers. Swara, 20(6)/21(1):8-11. **Annotation:** In 1980s SGR witnessed possibly the worst slaughter of wildlife in Africa. In 1981 there were about eighty-five thousand elephants and two thousand black rhinos in the reserve. By the late 1980s, there were about twenty-five thousand and less than five hundred, respectively. Now, wildlife numbers are rising and tourism is on increase [E/ECM].
- 5572 LwcW VIGNE, R. (1993). Uganda: alive and well. Swara, 16(4):18-20. **Annotation:** Reports on seeing 400 elephants in MFNP, June 1992 in which ratio of young adults is high. Additional 200 reported in KVNP. Since anti-poaching units are not well equipped or trained, these will be wiped out by poachers if ivory ban is lifted or ivory prices increase [ID-H/M&DR].
- 5573 LjeW VILJOEN, A. J. (1988). Long-term changes in the tree component of the vegetation in the Kruger National Park. In Long-term data series relating to southern Africa's renewable natural resources (ed. I. A. W. Macdonald and R. J. M. Crawford), pp. 310-315. South African National Scientific Programmes Report No. 157.
- 5574 LneW VILJOEN, A. J. (1995). The influence of the 1991/92 drought on the woody vegetation of the Kruger National Park. Koedoe, 38(2):85-97.
- 5575 LhwW VILJOEN, Philip J. (1987). Status and past and present distribution of elephants in the Kaokoveld, South West Africa/Namibia. South African Journal of Zoology, 22(4):247-257. **Annotation:** Journal was (before Vol. 13 [1978]) Zoologica Africana [MPK]. Status, past and present distribution of elephants in Kaokoveld. Elephants of Kaokoveld divided into western and eastern population with transition



group between. In 1983, 357 individual elephants identified: 70 in western, 207 in eastern, 80 transitional. Records indicate elephants present in northern Namib desert long before advent of western man. Present data show man had little influence on occupation of elephants in western area before 1880. Elephant populations stable following intensified law enforcement, but small population sizes are vulnerable [ID-H/M&DR].

- 5576 **LebW** VILJOEN, Philip J. (1988). The desert-dwelling elephant: hardy survivor. *African Wildlife*, 42(2):111, 113-115. **Annotation:** 5 year study on elephant population in Kaokoveld, Namibia, where 3 distinct areas of elephant population exist. Historic review, insight into range and general behavior. Elephants as a factor in the ecology of area as a whole, aspects of habitat modification by them. Factors in recent rise of poaching [ID-H/M&DR].
- 5577 **LcwW** VILJOEN, Philip J. (1988). The ecology of the desert-dwelling elephants *Loxodonta africana* (Blumenbach, 1797) of western Damaraland and Kaokoland. Unpublished D. Phil. dissertation, University of Pretoria, xxviii, 335 pp. **Annotation:** Distribution, population biology, spatial organization, movements and habitat utilization of the desert-dwelling elephants in northern Namib Desert Kaokoveld, south-west Africa. Social organization, social structure, movements and feeding pattern correspond to elephant populations in other parts of Africa but mobility, intimate knowledge of resource distribution and ability to go for extended periods without drinking, are key to survival [ID-H/M&DR].
- 5578 **LewW** VILJOEN, Philip J. (1989). Habitat selection and preferred food plants of a desert-dwelling elephant population in the northern Namib Desert, South-West-Africa/Namibia. *African Journal of Ecology*, 27(3):227-240. **Annotation:** Habitat selection and woody food plant preferences of desert-dwelling elephant populations in the northern Namib Desert. Suitability of river course habitat as the best upon which the elephants can depend for long-term survival is established. Preferences for other habitats, apart from mountains and rocky plains, and least the gravel plains, for short-term basis is observed. Preferences for *Colophospermum mopane*, *Tamarix usneoides* and *Combretum imberbe* for forage bulk is discussed [ID-H/M&DR].
- 5579 **LwjW** VILJOEN, Philip J. (1989). Spatial distribution and movements of elephants (*Loxodonta africana*) in the northern Namib Desert region of the Kaokoveld, South West Africa/Namibia. *Journal of Zoology*, 219(1):1-19. **Annotation:** Elephants in northern Namib Desert can move up to 70 km (mean = 25.7 km) from the nearest water point and have drinking intervals of between 19 and 96 hours [MPK]. Home ranges, space use patterns, seasonal distribution, long distances and water related movements of elephants in northern Namib Desert region of Kaokoveld are discussed. Movements of desert elephants, including wandering up to 195 km were confined to Namib Desert, no evidence could be found of any movements including migrations to or from ENP. Home ranges varied from 1,973 to 2,944 sq. km. There was a marked fidelity to individual home range. Seasonal distribution and space use patterns within home ranges coincided with season climatic change and corresponding food and water availability. Ability to go up to 4 days without drinking water enabled the animals to utilize food resources up to 70 km from water holes. Spatial distribution and movement patterns indicate a natural population segregation from other elephant populations in Kaokoveld, clearly demarcating the desert dwelling elephants as a distinct population [ID-H/M&DR].
- 5580 **LalW** VILJOEN, Philip J. (1990). A method of skull-based sex determination of elephant carcasses. *South African Journal of Wildlife Research*, 20(3):118-119. **Annotation:** Method for determining sex of elephant remains (desert in Namibia) from skulls. Significant sexual dimorphism demonstrated in mandible width for elephants of known age and sex, older than 15. Mandible width at given age appears to be valid field method for sexing decomposed carcasses of older elephants [ID-H/M&DR].
- 5581 **LjwW** VILJOEN, Philip J. (1992). The desert elephants of Namibia. In *Elephants: majestic creatures of the wild* (consult. ed. J. Shoshani), pp. 131-133. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London. **Annotation:** Ecology of elephants occupying Namib Desert area in northwestern Namibia and their relationship with waterholes and vegetation, their fidelity to home ranges and movements within the area [ID-H/M&DR].
- 5582 **LgwW** VILJOEN, Philip J. (reprinted 1994). Elephants and habitats. In *The African elephant as a game ranch animal* (ed. J. van Heerden and B. L. Penzhorn), pp. 26-34. Onderstepoort, South Africa: SAVA [South African Veterinary Association] Wildlife Group. 192 pp. **Annotation:** *Loxodonta africana*, translocation, ecology, weather, water, drinking, movements, food, seed dispersal, interspecific relations, in KNP, Namibia [MPK].
- 5583 **LwjW** VILJOEN, Philip J. and BOTHMA, J. DU P. (1990). Daily movements of desert dwelling elephants in the northern Namib Desert. *South African Journal of Wildlife Research*, 20(2):69-72. **Annotation:** Movements of desert dwelling elephants living in extremely arid northern Namib Desert in search of food and water. Mean distance in 12 hour period in 1981-2 was 12.9 km, range 4 to 38 kilometers. Distances shortest in wet season, medium in cold dry season, highest in hot dry season. Mean distance traveled in 24 hours was 27.5 kilometers further than any other elephants studied thus far and key to survival in such harsh climate [ID-H/M&DR].
- 5584 **LewW** VILJOEN, Philip J. and BOTHMA, J. DU P. (1990). The influence of desert-dwelling elephants on vegetation in the northern Namib Desert, South West Africa/Namibia. *Journal of Arid Environments*, 18(1):85-96. **Annotation:** The approximately 70 elephants in the northern Namib desert appear to have no detrimental effect on the vegetation. From monitoring study using aerial photography, it is concluded that present population is well below carrying capacity [E/ECM].
- 5585 **LuhW** VILLE, Jean-Luc. (1995). Man and elephant in the Tsavo area of Kenya: an anthropological perspective. *Pachyderm*, 20:69-72. **Annotation:** Relationship of Taita ethnic group occupying hills in TNP area and plains dwelling Waata group with elephants. Though hunting approach to elephants was quite different with Taita rarely hunting and Waata actively hunting, both groups respected the elephant which played a role in their mythology as well as their daily lives [ID-H/M&DR].
- 5586 **EcwW** VINOD, T. R. and CHEERAN, Jacob V. (1997). Conservation of elephants in Idukki Wildlife Sanctuary, Kerala. *Gajah*, 18:57-60.
- 5587 **LiuW** VOGEL, John C., EGLINGTON, B., and AURET, J. M. (1990). Isotope fingerprints in elephant bone and ivory. *Nature*, 346(6286):747-749. **Annotation:** Work being done on isotopic composition of carbon, nitrogen, lead and strontium in bone or ivory by which geographic origin of populations of elephant from which ivory originated can be ascertained. Isotopic signatures of bone and ivory from animals from KNP, Knysna, AENP and northern Namibia indicated clear definitions for origin of sample material [ID-H/M&DR]. See Reference no. 5543 [MPK].

- 5588 LnwW VOGEL, J. C., TALMA, A. S., HALL-MARTIN, Anthony J., and VILJOEN, P. J. (1990). Carbon and nitrogen isotopes in elephants. South African Journal of Science, 86(3):147-150. **Annotation:** The relative <sup>13</sup>C and <sup>15</sup>N content of bone protein is used to distinguish between different elephant populations in southern Africa. The <sup>15</sup>N enrichment between the plant food and collagen of these animals is about 3% and appears to be independent of the aridity of the habitat [ID-H/M&DR].
- 5589 \*avU VON KOENIGSWALD, W. (1989). Das Mammut von Polch bei Mayen (Eifel). Eiszeitalter u. Gegenwart, 39:87-97.
- 5590 BavB VON KOENIGSWALD, W. and CLEMENS, W. A. (1992). Levels of complexity in the microstructure of mammalian enamel and their application in studies of systematics. Scanning Microscopy, 6(1):195-218.
- 5591 +avB VON KOENIGSWALD, W., MARTIN, T., and PFRETZSCHNER, H. U. (1993) Phylogenetic interpretation of enamel structures in mammalian teeth: possibilities and problems. In Mammal phylogeny: placentals (ed. F. S. Szalay, M. J. Novacek, and M. C. McKenna), pp. 303-314, Springer-Verlag, New York, 321 pp.
- 5592 EaQC VU KHOI, L. (1988). Some biological characteristics of elephant and elephant domestication in Vietnam. In Proceedings of the IUCN/SSC Asian Elephant Specialist Group Meeting, Chiangmai, Thailand, January, 1988.
- 5593 BvoB WADDELL, Peter J., CAO, Ying, HAUF, Jörg, and HASEGAWA, Masami. (1999). Using novel phylogenetic methods to evaluate mammalian mtDNA, including amino acid-invariant sites-LogDet plus site stripping, to detect internal conflicts in the data, with special reference to the positions of hedgehog, armadillo, and elephant. Systematic Biology, 48(1):31-53.
- 5594 LdaC WAGNER, R. A. and BENTZ, G. H. (1991). An African elephant tusk pulpotomy: a conservative approach. In Proceedings of the American Zoo Vet, 1-5.
- 5595 BghC WAIT, Peter. (1989). Nature's great masterpiece. Chester Zoo Life (Chester, England), Autumn:10-12.
- 5596 ErgC WAIT, Peter. (1991). Highlights of a zoo career. Chester Zoo Life (Chester, England), Winter:10-11.
- 5597 LuwW WAITHAKA, John M. (1993). The elephant menace. Wildlife Conservation, 96(2):62-63. **Annotation:** Article describes conflict between elephants and rural dwellers living along park and reserve boundaries in Kenya. Causes listed include poor land use practices, rapid human population growth, inappropriate policies and poaching [ID-H/M&DR].
- 5598 LwjW WAITHAKA, John M. (1993). The impact of elephant density on biodiversity in different eco-climatic zones in Kenya. Pachyderm, 16:86-87.
- 5599 LjcW WAITHAKA, John M. (1994). The ecological role of elephants in restructuring plant and animal communities in different eco-climatic zones in Kenya and their impacts on land-use patterns. D. Phil. Thesis, Kenyatta University, 158 pp.
- 5600 LucW WAITHAKA, John M. (1996). Letter from Kenya. Wildlife Conservation, 99(6):6, 66. **Annotation:** *Loxodonta africana*, poaching, human relations, attacking-human, translocation, in TNP, AbNP, ANP [MPK].
- 5601 LcwW WAITHAKA, John M. (1996). Problems and solutions outside protected areas. Pachyderm, 22:91-92. **Annotation:** *Loxodonta africana*, conservation, human relations, in Kenya [MPK].
- 5602 LucW WAITHAKA, John M. (1997). Elephant poaching in Kenya. Pachyderm, 24:66. **Annotation:** Brief report on poaching numbers as documented by Kenya Wildlife Service for 1992 through 1997 [E/SLS].
- 5603 LcjW WAITHAKA, John M. (1997). Management of elephant populations in Kenya - what have we learnt so far? Pachyderm, 24:33-36. **Annotation:** "Based on the Kenya experience, the 'laissez faire' management should only be considered where wildlife habitats have not been intensely altered, fragmented, reduced, manipulated, or degraded" [E/SLS].
- 5604 LumW WAITHAKA, John M. (1998). Trends of elephant poaching in Kenya: The elephant mortality database [Abstract]. Pachyderm, 25:40-41 [in English and French]. **Annotation:** Much speculation over number of elephants poached in Africa since CITES meeting held in Harare in June 1997. When Kenya Wildlife Service met in November 1997 to scrutinize the KWS elephant mortality database and get reports from the field security network and land owners, speculation ended [E/ECM].
- 5605 LckW WALKER, B. H., EMSLIE, R. H., OWEN-SMITH, R. Norman, and SCHOLLES, R. J. (1987). To cull or not to cull: lessons from a southern African drought. Journal of Applied Ecology, 24:381-401. **Annotation:** Fide Taylor and Cumming 1993:18: Conclusion of these authors is that culling was ecologically unnecessary; was "rather narrow and simplistic" [MPK].
- 5606 LceW WALKER, C[live H.]. (1990). Five minutes to midnight. The Rhino & Elephant Journal, 4:16-19. **Annotation:** The author points out that it is incorrect to regard the ivory trade as the single reason for the population loss of the African elephant. Human population pressure and attendant land use needs, exclusion of the local people from economic benefits associated with protected areas, understaffed and underfunded conservation programs, and the need to assess the economic benefits of effective wildlife utilization must be considered if the elephant is to remain a viable species in the long term [ID-H/M&DR].
- 5607 LcwW WALKER, Clive [H.]. (1991). Twilight of the giants. Sable Publishers, Sloane Park (Republic of South Africa), 208 pp. **Annotation:** Discusses *Loxodonta africana*, conservation, in Kaokoveld, Namibia, Tongaland, Zululand, South Africa, Okavango, TGR [MPK].
- 5608 LcbW WALKER, C[live H.]. (1992). Dear elephant, sir. Southern Book Publisher, Halfway House [JNB], South Africa, 150 pp. **Annotation:** Discusses *Loxodonta africana*, conservation, behavior [MPK].
- 5609 LjwW WALKER, C[live H.]. (1992). New elephant populations on private land. The Rhino & Elephant Journal, 6:24-26. **Annotation:** Recent decision to let private landowners keep elephants on their property welcomed as a way to increase population in general and re-establish the species in appropriate areas of its earlier range. Since it is juveniles generally translocated, author queries if enough behavioral work has been done to provide for effective socialization. List of 17 areas where elephants now found, including KNP, which contains the largest population [ID-H/M&DR].
- 5610 LcwW WALKER, Clive [H.]. (1993). Elephant - symbol of untamed Africa. Custos, August:6-8.
- 5611 LiuW WALKER, C[live H.]. (1993). Profile: Dr. Iain Douglas-Hamilton. The Rhino & Elephant Journal, 8:4-5. **Annotation:** Discusses *Loxodonta africana*, behavior, ivory, poaching, conservation, population, in LMNP, Tembe, South Africa [MPK].
- 5612 LwjW WALKER, Clive H. (reprinted 1994). Factors that may influence the establishment of new elephant populations onto private land. In The African elephant as a game ranch animal, pp. 35-40. SAVA [South African Veterinary Association] Wildlife Group, Onderstepoort, South Africa, 192 pp. **Annotation:** Discusses *Loxodonta africana*, techniques, captivity, translocation, culling, South Africa [MPK].
- 5613 LciW WALKER, Clive [H.]. (1996). The Angola connection. The Rhino & Elephant Journal, 10:10-14. **Annotation:** Summary of events leading

- to the establishment of the Kumleben Commission to investigate South African involvement in smuggling and the illegal sale of ivory and rhino horn from Namibia from 1975 to 1987. The Commission report concluded that there had been large-scale destruction of wildlife in Angola and northeastern Namibia, and that rhino horn and tusks thus obtained were exported via South Africa, with the involvement of the Military Intelligence Division [SLS].
- 5614 LgjW WALKER, Clive H. (1997). Chairman's report to the Rhino & Elephant Foundation for the period 1 April 1996 to 31 March 1997. The Rhino & Elephant Journal, 11:45-48.
- 5615 ErqC WALLACE, Carolee and DOYLE, Chuck. (1991). The labor, birth, and post delivery management of an Asian elephant and her calf. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 92-98. Burnet Park Zoo, Syracuse, 161 pp.
- 5616 ErdC WALLACE, Carolee and KILPATRICK, Judy. (1991). Clinical case report: the medical management and treatment of a 36 year old preparturient Asian elephant cow following a dystocia and Caesarian section. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 77-83. Burnet Park Zoo, Syracuse, 161 pp.
- 5617 LdoC WALLACE, Carolee, INGRAM, Kathy A., DIERENFELD, Ellen S., and STUART, Robert L. (1992). Serum vitamin E status in captive elephants during prolonged supplementation of micellized natural alpha-tocopherol. Proceedings of the American Association of Zoo Veterinarians and American Association of Wildlife Veterinarians joint conference November 15-19, 1992, pp. 388-394.
- 5618 EggC WALLACE, Carolee, WOODLE, Kate, DOYLE, Chuck, MORE, Donald, MOFSON, Edward, and WALTER, Barbara. (1991). Making cast metal bands for an Asian elephant's (*Elephas maximus*) tusks. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 106-110. Burnet Park Zoo, Syracuse, 161 pp.
- 5619 BicW WALLACE, E. (1989). World vote bans ivory trade. Christian Science Monitor, [19 October 89]:page 4. **Annotation:** "Saving the elephant compromise vote lists elephant as 'Endangered species' but leaves open possibility of future trade in ivory" [E/MKM].
- 5620 BqtC WALLACE, Kathy. (1988). Elephant introductions at the National Zoological Park, Washington, D.C. In Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988, pp. 90-92. Jacksonville Zoological Park, Florida, 145 pp.
- 5621 LcwB WALSH, James. (1991). Loving jumbo to death. Time, 137(12):54-55.
- 5622 LicW WALTER, Eugene J., Jr. (1990). Elephant Watch. Wildlife News: Conservation, May/June 1990:27. **Annotation:** "Can Ivory be Fingerprinted?" Three methods of determining geographical origins of tusks are under investigation [E/SLS].
- 5623 LcwW WALTER, Eugene J., Jr. (1991). Expressway for elephants: a new pathway to survival in Tanzania. Wildlife Conservation, 94(1):46-49. **Annotation:** Cooperative venture of land buying scheme for a corridor allowing LMNP elephants a relatively easy and safe access route to Marang Forest Reserve, an 82 square mile wooded area southwest of park [ID-H/M&DR].
- 5624 \*hvU WANG, B.-Y. and WANG, P.-Y. (1991). Discovery of early Miocene mammalian fauna from Urtu area, Alxa Left Banner, Inner Mongolia. Chinese Science Bulletin, 36(2):135-139.
- 5625 \*hvU WANG, Huimin, CHEN, Wei, and YU, Jun. (1994). A survey of ancient animal fossils at Tongxin Ningxia and about some connected questions. Journal of Ningxia University (Natural Science Edition), 15(2):76-83 [in Chinese with English abstract]. **Annotation:** *Platybelodon tongxiensis*, *Gomphotherium tongxiensis*, *Miomastodon tongxiensis*, p. 81; abstract on page 83, beginning of Chinese on page 76 [ECM].
- 5626 LicW WANG, Ying and MILLIKEN, Tom. (1989). The ivory trade in Taiwan. In The ivory trade and the future of the African elephant (coord. S. Cobb), Vol. 2, Technical Reports, Section 3.10. The Ivory Trade Review Group, Oxford. **Annotation:** In the mid 1980s Taiwan, which was not a signatory to CITES, began to take on what might be considered a significant role as an import and forwarding agent for ivory. Regulations administered by the Board of Foreign Trade were established in 1987 and records of importers, countries of re-export or origin and the declared value are kept [ID-H/M&DR].
- 5627 \*hvU WANG, Yuinfong. (1989). The study of Fuyang fossil fauna from the late Pleistocene. Unpublished Master thesis, China University of Geosciences, Beijing, China [in Chinese with English abstract], 67 pp. + 12 pls. Handwritten (typed abstract and English references).
- 5628 EujW WANIGASUNDARA, M. (1990). Elephants slaughtered in civil war. The Jakarta Post (Indonesia) 1. November 1990. Reprinted in IUCN/SSC Asian Elephant Specialist Group Newsletter 6:(1991):16-17.
- 5629 \*guU WARD, Peter D. (1997). The call of distant mammoths: why the Ice Age mammals disappeared. Copernicus, New York, 241 pp. **Annotation:** Of two suspected culprits for extinction of Ice Age mammals, climate change and human hunting, the author builds a case for hunting; mass extinctions throughout earth's history [E/ECM].
- 5630 LaoB WASSER, S. K., PAPAGEORGE, S., FOLEY, C., and BROWN, J. L. (1996). Excretory fate of estradiol and progesterone in the African elephant (*Loxodonta africana*) and patterns of fecal steroid concentrations throughout the estrous cycle. General and Comparative Endocrinology, 102(2):255-262.
- 5631 LqhC WATSON, Rupert M. (1989). The Garamba elephants. Swara, 12(4):15-17. **Annotation:** History and present condition of elephant training school at GaNP [ID-H/M&DR]. See Reference nos. 1675, 3253, 3539, 3800, 3801, 3951, 5209, 5632 [MPK].
- 5632 LthC WATSON, Rupert M. (1990). King Leopold's elephants. New Scientist, 128(1748/1749):25-27. **Annotation:** Outlines elephant domestication in GaNP initiated by King Leopold of Belgium. Notes the legacy of original program and revitalization of program as an aspect of conservation and tourism within National Park [ID-H/M&DR]. See Reference nos. 1675, 3253, 3539, 3800, 3801, 3951, 5209, 5631 [MPK].
- 5633 LdaW WATTS, R. (1994±). Trunk calls. Skyhost (Air Zimbabwe, Harare), 2(2):32-33. **Annotation:** Discusses *Loxodonta africana*, their trunks and diseases, in MaNP, Kariba, Fothergill, Zimbabwe. There is no date in the issue [MPK].
- 5634 EdeW WATVE, Milind G. (1995). Helminth parasites of elephants: ecological aspects. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 289-295. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 5635 EdiW WATVE, Milind G. and SUKUMAR, R[aman]. (1997). Asian elephants with longer tusks have lower parasite loads. Current Science, 72(11):885-888. **Annotation:** Title is a good summary of article; see Reference no. 2769 [JS].
- 5636 LneW WAWERU, F. K. (1991). Who gets the food? Pachyderm, 14:29-31.

- 5637 LbcB WEAVER, Ann C. (1992). An illustrated bibliography of elephant behaviour and conservation. Zoological Society of San Diego, 62 pp.
- 5638 BbgC WEAVER, Ann C. (1992). "Wandering nobility": an ethology of the elephant. Elephant Keepers Manual, Zoological Society of San Diego, pp. 18-41. **Annotation:** *Loxodonta africana*, *Elephas maximus*, captivity, behavior [MPK].
- 5639 \*ewU WEBB, S. David. (1991). Ecogeography and the great American interchange. Paleobiology, 17(3):266-280.
- 5640 \*ieU WEBB, S. David. (1993). Ohmes collection in state museum. Half-Mile Rise Times, 7(1):1. **Annotation:** "During the 1950's and 1960's Dr. Richard Ohmes and his son, Donald, gathered a fabulous collection of ivory and bones in the Aucilla and Wacissa Rivers. In June of 1992 they donated their collection to the Florida Museum of Natural History" [E/ECM].
- 5641 +gvB WEBB, S. David. (1998). Review of "The Proboscidea: evolution and palaeoecology of elephants and their relatives" edited by Jeheskel Shoshani and Pascal Tassy, published 1996 by Oxford University Press, 472 pp. The Quarterly Review of Biology, 73(2):197.
- 5642 \*ewU WEBB, S. David and BARNOSKY, A. D. (1989). Faunal dynamics of Pleistocene mammals. Annual Review of Earth Planetary Science, 17:413-438.
- 5643 \*evU WEBB, S. David and DUDLEY, Joseph P. (1995). Proboscidea from the Leisey Shell Pits, Hillsborough County, Florida. Bulletin of the Florida Museum of Natural History, 37 Pt. II(20):645-660. **Annotation:** "Leisey Shell Pits are remarkable for producing three species of Proboscidea representing three genera and indeed three separate families [*Cuvieronius tropicus*, *Mammuth americanum*, *Mammuthus hayi*]" [E/JS].
- 5644 \*njU WEBB, S. David and NEWSOM, Lee. (1991). Diet of *Mammuth americanum* in late Pleistocene of Florida. Journal of Vertebrate Paleontology. Abstracts of Papers, Volume 11, Supplement to Number 3:60A-61A.
- 5645 \*evU WEBB, S. David, MORGAN, G. S., HULBERT, R. C., Jr., JONES, D. S., MACFADDEN, B. J., and MUELLER, P. A. (1989). Geochronology of a rich early Pleistocene vertebrate fauna, Leisey Shell Pit, Tampa Bay, Florida. Quaternary Research, 32:96-110.
- 5646 LcgW WEBER, William. (1990). Out of Africa. WCI Bulletin, May/June:W5. **Annotation:** Reports on several WCI projects in progress which offer great hope for survival of large tracts of species-rich rainforests in central Africa [E/ECM].
- 5647 BrmB WECKERLY, F. W. (1998). Sexual-size dimorphism: influence of mass and mating systems in the most dimorphic mammals. Journal of Mammalogy, 79(1): 33-52. **Annotation:** *Loxodonta africana* and *Elephas maximus*; size, weight, reproduction, behavior [MPK].
- 5648 BjuB WEILGART, Linda, WHITEHEAD, Hall, and PAYNE, Katharine Boynton. (1996). A colossal convergence. American Scientist, 84(3):278-287. **Annotation:** *Loxodonta africana*, *Elephas maximus* and whales; behavior, evolution [MPK].
- 5649 \*wuU WEINTRAUB, Boris. (1997). A mammoth graveyard emerges in Mexico. National Geographic, 192(2):unnumbered page in Geographica section. **Annotation:** A catastrophe that occurred about 11,300 years ago killed at least seven mammoths, horses, camelids, deer, birds, fish and turtles, in a valley 20 miles northwest of today's Mexico City. Archaeologist Luis Morett Alatorre and paleontologists Joaquin Arroyo Cabrales and Oscar J. Polaco have discovered that some of the mammoth bones bear marks made by humans [ECM].
- 5650 LucW WEISBURD, Stefi. (1988). African elephants: a dying way of life. Science News, 133(21):333.
- 5651 BqcC WIESE, R. J. (1998). Conservation: the status of elephants at the zoo. ROAR, spring, Fort Worth, Texas: Fort Worth Zoo.
- 5652 \*avU WELCOMME, Jean-Loup. (1994). Le plus ancien crâne de proboscidien d'Europe, *Gomphotherium hannibali* nov. sp. (Proboscidea, Mammalia), du Miocène inférieur du Languedoc (France). Comptes Rendus de l'Académie des Sciences, Paris, 319, Série II(1):135-40 [in French with English abstract and abridged English version].
- 5653 LmwW WELLS, Michael P. (1989). The use of carcass data in the study and management of African elephants—a modelling approach. African Journal of Ecology, 27(2):95-110. **Annotation:** Due to size, both live elephants and carcasses can be counted with reasonable accuracy during aerial census in savannah ecosystems. A carcass ratio or the proportion of dead to live animals can be computed. A population model was used to analyze how elephant population trends are reflected in carcass numbers and carcass ratio pattern over a 15 year period under various scenarios. Results showed carcass ratio patterns over time generated in the absence of hunting/poaching are clearly distinguishable from those produced by hunting. With improved techniques on identifying carcass decay, this type of model could offer potential information to managers [ID-H/M&DR].
- 5654 BidC WELSCH, Boyd B. (1988). Management of elephant tusk problems. In Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988, pp. 120-121. Jacksonville Zoological Park, Florida, 145 pp.
- 5655 LdqC WELSCH, Boyd, JACOBSON, Elliott R., KOLLIAS, George V., KRAMER, Lynn, GARDNER, Harrison, and PAGE, C. Douglas. (1990). Tusk extraction in the African elephant (*Loxodonta africana*). Journal of Zoo and Wildlife Medicine, 20(4):446-453.
- 5656 LraB WELSCH, Ulrich, FEUERHAKE, Friedrich, VAN AARDE, Rudi J., BUCHHEIM, Wolfgang, and PATTON Stuart. (1998). Histo- and cytophysiology of the lactating mammary gland of the African elephant (*Loxodonta africana*). Cell and Tissue Research, 294(3):485-501.
- 5657 EtqC WEMMER, Chris. (1995). Gaonbura Sahib - A. J. W. Milroy of Assam. In A week with elephants (ed. J. C. Daniel and H. Datye), pp. 483-496 + 1 pl. Bombay Natural History Society. **Annotation:** Discusses *Elephas maximus*, captivity, working, glossary, training, India, Assam [MPK].
- 5658 EceC WEMMER, Chris. (2000). The elephant-wallahs' microcosm. Elephant, 2(4):55-60.
- 5659 EmwC WEMMER, C. and KRISHNAMURTHY, V. (1992). Methods for taking standard measurements of live domestic elephants. In The Asian Elephant, Ecology, Biology, Diseases, Conservation and Management (ed. E.G. Silas, M. Krishnan Nair, and G. Nirmalan), pp. 34-37. Kerala Agricultural University, Trichur, 181 pp.
- 5660 BciW WENGER, Denise. (1994). A safe place for elephants. Journal of European Animal Aid and German Animal Aid, 4/94:6-9. **Annotation:** Decision of 1994 CITES Conference to maintain elephant on Appendix 1 thus upholding ban on ivory and serving to solidify ongoing elephant conservation programs. Notes role NGOs and their members, such as those who belong to Animal Aid, played in discussions which led to this decision [ID-H/M&DR].
- 5661 \*evU WENNER, Adrian M., CUSHING, J., NOBLE, E., and DAILY, M. (1991). Mammoth radiocarbon dates from the Northern Channel Islands, California. In Proceedings of the Society for California Archaeology, Vol. 4 (ed. M. D. Rosen, L. E. Christenson, and G. T. Gross), pp. 221-226. Society for California Archaeology, San Diego, total pages not provided.
- 5662 EagU WERNICK, Robert. (1989). Out of dark dreams and bright hopes, the blazing art of Goya. Smithsonian, 19(10):56-67.

- 5663 BciW WEST, D. L. (1990). Elephant campaign update. *Focus*, 12(3):1, 5.
- 5664 BciW WEST, D. L. (1990). Elephant update. One year later, U.S. ivory ban is working. *Focus*, 12(4):1, 5.
- 5665 BciW WEST, D. L. (1990). New report shows ivory ban working. *Swara*, 13(6):19-20.
- 5666 LuiW WESTERN, David. (1987). Africa's elephants and rhinos: flagships in crisis. *Trends in Ecology & Evolution*, 2(11):343-346. **Annotation:** Despite extensive conservation measures in last two decades, populations of elephants and rhinos in Africa continue decline. Plight of black rhino especially acute. Poaching for rhino horn and ivory, rather than habitat loss, remains principal threat. Only long-term hope may lie in effective protection of small, isolated populations [ID-H/M&DR].
- 5667 LcuW WESTERN, David. (1989). The case for banning the ivory trade. *Swara*, 12(5):11-14. **Annotation:** Growing ivory trade linked to continuing loss of elephants from poaching. Relates that to initial CITES program. Findings of recent Ivory Trade Review Group; if the elephant is to be saved from extinction, ivory ban is necessary [ID-H/M&DR].
- 5668 LcuW WESTERN, David. (1989). Chairman's report: putting elephant and rhino conservation plans into action. *Pachyderm*, 11:2-3.
- 5669 LcuW WESTERN, David. (1989). Chairman's report: ivory under scrutiny. *Pachyderm*, 12:2-3.
- 5670 LecW WESTERN, David. (1989). The ecological role of elephants in Africa. *Pachyderm*, 12:42-45. **Annotation:** Plant species richness was greatest in areas of intermediate elephant density [MPK]. Initial paper is included in the Ivory Trade Review Group; see "Ivory trade and the future of the African elephant", Volume 2, Section 5.2. Addresses problems associated with ecological arguments for conserving species, notes these arise because ecological role of a species is rarely obvious to non-ecologists, it is difficult to show consequences of losing a species until after it is gone. Examples of keystone role of elephants in African ecosystems cited. ANP example in Kenya illustrates what happens to biological diversity over time in relationship to widely varying population of elephants. Various ecological roles of elephants such as agents of seed dispersal, creators of openings or gaps in forest areas discussed [ID-H/M&DR].
- 5671 LecW WESTERN, David. (1989). The ecological value of elephants: a keystone role in African ecosystems. In *The ivory trade and the future of the African elephant* (coord. S. Cobb), Vol. 2, Technical Reports, Section 5.2. The Ivory Trade Review Group, Oxford. **Annotation:** Emphasis on ecological value and problem of conserving species for ecological reasons. Examples of keystone role of elephants in African ecosystems cited; ANP example used to illustrate what happens to biological diversity when savannah area that maintained elephants loses this species. Ecological roles of forest elephants include seed dispersal and creation of forest gaps which assist in diversification of tropical forest floral and faunal species [ID-H/M&DR].
- 5672 LuiW WESTERN, David. (1989). Kenya crushes poachers. *Animal Kingdom*, May/June:6.
- 5673 LicW WESTERN, David. (1990). Is the tide turning for elephants and rhino? *Pachyderm*, 13:2-4.
- 5674 LicW WESTERN, David. (1990). Ivory trade under scrutiny. *Species*, 13/14:35-37.
- 5675 LucW WESTERN, David. (1991). When the forest falls silent. In *Elephants: the deciding decade* (ed. R. Orenstein), pp. 83-95. Key Porter, Toronto, 160 pp. Revised, updated reprint in 1997. **Annotation:** *Loxodonta africana africana*, *L. a. cyclotis*, ivory, poaching, ecology, conservation, habitat, legislation [MPK].
- 5676 LciW WESTERN, David. (1992). Taking stock of the ivory ban. *Swara*, 15(1):21-23. **Annotation:** Background of perception of ivory ban from pro-ban and pro-trader sides of the argument. Calls for appreciation of both sides, and management of land use to allow for the future of agricultural and wildlife conservation needs [ID-H/M&DR].
- 5677 LewW WESTERN, David. (1993). The balance of nature. *Wildlife Conservation*, 96(2):52-55. **Annotation:** Role elephants could play in creating greater biodiversity. Forests and savannah elephants, if allowed to migrate out of concentrated parks, can create new habitats [ID-H/M&DR].
- 5678 LwbW WESTERN, David. (1995). Elephant and people. *Swara*, 18(2):29. **Annotation:** Success of ivory ban and anti-poaching efforts are beyond dispute, but protection of elephants has created a new problem. Elephants which congregated in parks for safety have begun venturing out now that poaching is down, have become tamer and bolder, and begun to raid farms [E/ECM].
- 5679 LicW WESTERN, David. (1995). The ivory wars wage on. *Wildlife Conservation*, 98(3):18. **Annotation:** *Loxodonta africana*, poaching, legislation, Kenya [MPK].
- 5680 LcjW WESTERN, David. (1997). *In the dust of the Kilimanjaro*. Island Press, Washington, D.C., 297 pp.
- 5681 LciW WESTERN, David and COBB, Stephen. (1989). Elephants alive! *Animal Kingdom*, 92(3):24-29. **Annotation:** Adapted from 'A review of the Ivory Trade and Policy Options' prepared by the African Elephant and Rhino Specialist Group, IUCN, describes loss of African elephants to poaching and illegal trade in ivory. Death due to poaching is most significant cause of loss in elephant numbers although habitat loss and conflict with growing human populations are becoming increasingly important causes. Describes problems associated with illegal ivory trade and lack of effective international controls [ID-H/M&DR].
- 5682 LicW WESTERN, David and COBB, Stephen. (1989). The ivory trade review. *Pachyderm*, 11:11-12.
- 5683 LcuW WESTERN, David and PEARL, M. (1989). *Conservation for the twenty-first century*. Oxford University Press, Oxford, New York, xxiv + 365 pp.
- 5684 ErqC WHALLEY, Phil. (1992). An elephant comes to stud. *Chester Zoo Life*, Winter:8-9. **Annotation:** Whalley reports on recent visit to Chester Zoo of a female Asian elephant from London Zoo [E/PFH].
- 5685 ErqC WHALLEY, P[hil]. (1995). Elephant parturition in captivity. *Chester Zoo Animal Notes*, Chester, England, 13, 112 pp.
- 5686 LcuW WHEAL, Caroline. (1998). Creating peace parks in Africa. *People & the Planet*, 7(4):28-30. **Annotation:** The peace park will help to re-establish traditional elephant migration routes that were cut off when the fence was built to east of KNP in 1976 and elephant culling will no longer be necessary in the park [E/ECM].
- 5687 LiuW WHITE, Ben. (1997). Showdown in Zimbabwe. *The Animal Welfare Institute Quarterly*, 46(2&3):4-6. **Annotation:** CITES meeting in Harare, Zimbabwe, the non-governmental organization (NGO) observers representing conservation and protection were far outnumbered by 'sustainable use' advocates who traffic in wildlife like trophy hunters and whalers [E/ECM].
- 5688 LecW WHITE, Lee J. T. (1992). Ecology of forest elephants. In *Vegetation history and logging damage: effects on rainforest animals in the Lopé Reserve, Gabon*. D. Phil. Thesis, University of Edinburgh, pp. 139-187.
- 5689 LewW WHITE, Lee J. T. (1993). The other African elephant. *Wildlife Conservation*, 96(2):50-51, 88. **Annotation:** Differences between forest and

- savanna elephants are explored along with role of forest elephant in opening forest canopy, providing new habitats for other animal species and dispersing fruit seeds (LGR) [ID-H/M&DR].
- 5690 LwjW WHITE, Lee J. T. (1994). Biomass of rain forest mammals in the Lopé Reserve, Gabon. *Journal of Animal Ecology*, 63(3):499-512. **Annotation:** Densities of mammals in five sites in lowland semi-evergreen rain forest in LGR estimated using standard line transect methods. Forest elephants dominated biomass making up 52-89% while primates accounted for 6-30%. High biomass due to elephant densities emphasized importance to African rain forest [ID-H/M&DR].
- 5691 LnjW WHITE, Lee J. T. (1994). *Sacoglottis gabonensis* fruiting and the seasonal movements of elephants in the Lopé Reserve, Gabon. *Journal of Tropical Ecology*, 10(1):121-125. **Annotation:** In LGR elephant movements are geared towards maximizing availability of favored fruit species, *Sacoglottis gabonensis*. Densities vary between sites as a result of differences in the forest composition and within sites in response to fruiting patterns. Fruit is important part of diet of forest elephants and elephant densities fluctuate locally, and even regionally in response to fruit availability. Mean group size of forest elephants is lower than that of savanna elephant and importance of fruit in diet may relate to this [ID-H/M&DR].
- 5692 LmnW WHITE, Lee J. T. (1995). Factors affecting the duration of elephant dung piles in rain forest in the Lopé Reserve, Gabon. *African Journal of Ecology*, 33(2):142-150. **Annotation:** 1,282 fresh elephant dung piles in rain forest environment of LGR monitored over two years to characterize time to reach Stage E as defined by Barnes and Jensen. Significant differences found in mean duration of dung piles in different months. Negative correlation between mean dung duration and rainfall in previous three months and mean humidity between 1-3 p.m. Most important factor affecting duration was fruit content in any given month, higher fruit content providing less fibrous material, leading to faster decay [ID-H/M&DR].
- 5693 LnjW WHITE, Lee J. T., TUTIN, Caroline E. G., and FERNANDEZ, Michel. (1993). Group composition and diet of forest elephants, *Loxodonta africana cyclotis* Matschie 1900, in the Lopé Reserve, Gabon. *African Journal of Ecology*, 31(3):181-199 [in English with English and French abstracts]. **Annotation:** Forest elephants observed between 1984 and 1991 in lowland rain forest in LGR. Elephants observed 685 times, 383 were complete observations. Mean group size was 2.8, mean family unit size was 3.5. Adult females accompanied by one or more offspring, adult males most often solitary. Group sizes at LGR smaller than those for savanna elephants in East Africa and those in Malaysian rain forest. Elephants at LGR ate parts of 230 plant species from at least 52 taxonomic families, one species of fungus and soil [ID-H/M&DR].
- 5694 LbeW WHITE, Lee J. T., TUTIN, Caroline E. G., and FERNANDEZ, Michel. (1994). Behavioural and dietary similarities of elephants and apes in the Lopé Reserve, Gabon: should forest elephants be re-classified as apes? In *Current Primatology Vol. 1: ecology and evolution* (ed. B. Thierry, J. R. Anderson, J. J. Roeder, and N. Herrenschmidt), pp. 19-27. Université Louis Pasteur, Strasbourg. **Annotation:** Considerable overlap in diets of lowland gorillas and forest elephants in LGR. Elephants accounted for 25 to 82% of biomass of large mammals in study of five sites. Comparison of elephants' responses to researchers, social organization and diet to those of gorillas and chimpanzees [ID-H/M&DR].
- 5695 LneW WHITE, Lee J. T., ROGERS M. E., TUTIN, Caroline E. G., WILLIAMSON, E. A., and FERNANDEZ, M. (1995). Herbaceous vegetation in different forest types in the Lopé Reserve, Gabon: Implications for keystone food availability. *African Journal of Ecology*, 33(2):124-141. **Annotation:** Density of herbaceous plants of Marantaceae and Zingiberaceae families, favored food of elephants and apes measured in different forest types within Reserve. Stem densities, and phenology of leaf and fruit production varied among forest types which had different logging histories and tree species composition. Species of these families provide food items for primates and elephants. Future judgments about which habitats might be, or have been, optimal for apes or elephants should be based on detailed background knowledge of vegetation history and composition covering the whole area under consideration, which in turn should be related to the known ranging behavior of the animals [ID-H/M&DR].
- 5696 \*vwU WHYBROW, P. J. (1987). Summary [on the Miocene geology and palaeontology of Ad Dabtiyah, Saudi Arabia]. *Bulletin of the British Museum (Natural History) Geology*, 41:367-369.
- 5697 LewW WHYTE, Ian J. (1993). Elephants and their environment. *Custos*, August:14-16.
- 5698 LwkW WHYTE, Ian [J.]. (1993). Listening out: the Rhino and Elephant Foundation helps fund elephant research in the Kruger National Park. *The Rhino & Elephant Journal*, 8:34, 36-37. **Annotation:** Outgoing research and management program in KNP, which involved culling of elephants from different areas of compartments in routine set up to maintain ecosystems in general and overall elephant population of about 7,000 [ID-H/M&DR].
- 5699 LkwW WHYTE, Ian [J.]. (1993). The movement patterns of elephants in the Kruger National Park in response to culling and environmental stimuli. *Pachyderm*, 16:72-80. **Annotation:** Elephant population of area now comprising KNP, was almost exterminated before proclamation of area as a game reserve in 1903. Population increased gradually through immigration from Zimbabwe and natural increases until 1967 when decision was made to control population through culling [ID-H/M&DR].
- 5700 LrcW WHYTE, Ian J. (1993). Small populations can benefit from birth control. *Custos*, August:34-36.
- 5701 LkmW WHYTE, Ian J. (1996). Collecting data from dead elephants. In *Studying elephants* (ed. K. Kangwana), pp. 171-177. African Wildlife Foundation, Nairobi, Kenya, 178 pp. **Annotation:** Data collected from carcasses of randomly culled elephants where many animals are shot simultaneously [ID-H/M&DR].
- 5702 LjcW WHYTE, Ian J. (1996). Studying elephant movements. In *Studying elephants* (ed. K. Kangwana), pp. 75-89. African Wildlife Foundation, Nairobi, Kenya, 178 pp. **Annotation:** Aspects include home range, seasonal or periodic long distance movements, dynamic relationships between clans, herds or individuals and foraging behavior [ID-H/M&DR].
- 5703 LrjW WHYTE, Ian J. and GROBLER, Dave G. (1998). Elephant contraception research in the Kruger National Park. *Pachyderm*, 25:45-52. **Annotation:** Two methods of contraception used in KNP over past 12 months are "immuno-contraception" which uses porcine zona pellucida immuno-contraceptive vaccine, and hormonal control using subcutaneous oestradiol-17B implants. Immunocontraception technique has been effective in other locations, but after 12 months, some cows were pregnant. Oestradiol implants were successful as none of the treated cows was pregnant after six or 12 months" [E/ECM].

- 5704 LceW WHYTE, I[an]. J., BIGGS, H. C., GAYLARD, A., and BRAACK, L. E. O. (1999). A new policy for the management of the Kruger National Park's elephant population. *Koedoe*, 42(1):111-132. **Annotation:** Focuses on extent and intensity of elephant impacts on biodiversity rather than on numbers of elephants *per se*. Proposes that KNP be divided into six zones — two botanical reserves, two high-elephant-impact zones, and two low-elephant-impact zones. Illustration on page 115 depicts KNP elephant populations between 1903 and 1998. Elephants, management, culling, heterogeneity, biodiversity [ECM/JS].
- 5705 +ovB WIBLE, J. R. (1987). The eutherian stapedial artery: character analysis and implications for superordinal relationships. *Zoological Journal of the Linnean Society*, 91:107-135.
- 5706 LbjW WICKLER, Wolfgang and SEIBT, Uta. (1997). Aimed object-throwing by a wild African elephant in an interspecific encounter. *Ethology*, 103(5):365-368. **Annotation:** Female African elephant observed using her trunk to throw mud, soil and vegetation - at interfering white rhino. Object-throwing, a type of animal tool-behavior, seems to be used by elephants not only in aggression but for exploration [ECM, WSU computer].
- 5707 EbnW WICKRAMASINGHE, Christopher. (1998). Some observations of the behaviour and food habits of the elephant made at Lahugala in 1959. Abstract presented at *National Symposium on Elephant Management and Conservation* (ed. Jayantha Jayewardene and Charles Santiapillai), p. 27. Biodiversity & Elephant Conservation Trust, Colombo (Sri Lanka), 95 pp.
- 5708 ErmW WIDODO, Sukohadi Ramono. (1991). Importance of sex-ratio and age-structure in the management of elephant population. *IUCN/SSC Asian Elephant Specialist Newsletter*, 7:9-12. **Annotation:** The elephant represents an extreme example of a K-selected species, or at subsistence, for which reproduction is the actual regulatory process, with high survival of adults [E/SLS].
- 5709 BqtC WIESNER, Henning. (1994). Swinging cables as a barrier for elephants and rhinos. *The Elephant Managers Association Newsletter*, 5(3):49-50. **Annotation:** Proceedings of the Workshop about Elephants in Zoos and Circuses held under auspices of Institute for Zoo and Wildlife Research, Berlin, Germany, July 2-4, 1993. Originally published in *Bongo*, Zoological Garden, Berlin, edited by Hans Fradrich and H. C. Heinz-Georg Klos.
- 5710 EklW WJESOMA, W. R. (1994). Majestic giant driven to extinction. *The Sunday Island* (Sri Lanka), 27 March 1994, Roundabout, p. 1.
- 5711 LicW WUNSTEKERS, W. (1994). CITES and the African elephant. In *The African elephant in the context of CITES September 19-23 September, 1994 Kasane, Botswana. Part B, Background Papers*. United Kingdom, London. Department of the Environment, pp. 3-18. **Annotation:** History and rationale of inclusion of African elephant in CITES, from initial placement in Appendix III by Ghana in 1977 through to placement on Appendix I in 1989. Background of proposals to transfer some populations as well as issue of accumulation of ivory stocks in range states is discussed [ID-H/M&DR].
- 5712 LcjW WILD, Russell (ed.). (1991). *The Earth care Annual 1991*. National Wildlife Federation, Rodale Press, Emmaus (Pennsylvania), 236 pp. **Annotation:** Discusses elephant conservation and how tourism, especially in Africa, is an extremely important source of revenue; most tourists come to see large game such as elephants [JS].
- 5713 LcwW WILDER, Martijn. (1995). Quota systems in international wildlife and fisheries regimes. *The Journal of Environment and Development*, 4(2):55-104. **Annotation:** Global environment faces growing pressure on living resources, total bans on exploitation may not be practical solution. Wildlife conservation dealing with leopards and elephants and in international fisheries, quotas have arisen as compromise between protection and unbridled exploitation [ID-H/M&DR].
- 5714 LciW WILDLIFE CONSERVATION INTERNATIONAL. (1992). The ivory trade and conserving the African elephant. *Wildlife Conservation International, New York*, WCI Policy Report no. 1, 16 pp. **Annotation:** WCI contends that reopening ivory trade per African nations' request in 1992 will threaten elephants throughout African continent. Ban must stay in effect until: Elephants re-establish substantial healthy populations and are capable of serving their ecological functions throughout much of their range; wildlife conservation institutions in nations with elephant populations are strengthened and capable of monitoring and protecting elephant herds; and, producer and consumer nations develop stringent, effective controls on ivory trade which include reliable verification system of origin of ivory [ID-H/M&DR].
- 5715 LucW WILKIE, David S. and CARPENTER, Julia F. (1999). The potential role of safari hunting as a source of revenue for protected areas in the Congo Basin. *Oryx*, 33(4):339-345. **Annotation:** Available information suggests that hunting safaris could offer a significant, sustainable source of financing to offset costs of maintaining protected areas. Hunting of elephants is discussed on page 341 [E/ECM].
- 5716 \*vwU WILLEMSEN, G. (ed.). (1988). De mammoetvondsten van Condoover. *Cranium*, 5(1):65 [in Norwegian].
- 5717 \*vhU WILLEMSEN, G. (ed.). (1988). Een poolse mammoet-boemerang. *Cranium*, 5(1):66 [in Norwegian].
- 5718 BhyB WILLIAMS, Heathcote. (1989). *Sacred elephant*. Jonathan Cape Ltd., London, 175 pp. **Annotation:** Ancients from Brahma and Job to Aristotle and Pliny recognized and revered the elephant, yet modern man has decimated its ranks, stolen its tusks for piano keys and billiard balls and confined it to reserves. Author opens our eyes to the grace, social sophistication and sensitivity so that we may again acknowledge the elephant as "nature's great masterpiece" [ID-H/M&DR].
- 5719 BpmB WILLIAMS, Terrie M. (1990). Heat transfer in elephants - thermal partitioning based on skin temperature profiles. *Journal of Zoology*, 222(2):235-245. **Annotation:** Infrared thermography was used to measure skin temperatures. Surface temperature profiles and surface area measurements of two elephants, an adult African and immature Indian, were used in standard equation for convection. Radiation accounted for 86% of the total heat loss. Heat transfer across the ears, an important thermal window at high ambient temperatures, represented less than 8% of total heat loss. Surface area of animals, and metabolic heat production calculated from total heat loss of the African scaled predicately with body mass while in contrast the thermal conductance of elephants was 3 to 5 times higher than predicted from allometric relationship for smaller animals [ID-H/M&DR].
- 5720 LcgW WILLIAMS, Wendy. (1997). Of elephants and men. *Animals*, 130(6):24-30. **Annotation:** "Some see profit, others see a creature worth protecting at any cost" [E/ECM, p. 25].
- 5721 LczW WILLIS, Delta. (1995). Leakey for president? *Natural History*, 104(11):8-9. **Annotation:** Richard Leakey is battling to play a major role in Kenya's future [E/ECM].
- 5722 BqtC WILMETH, Don B. (1988). Mud show. *Natural History*, 97(7):38-39, 41-45.
- 5723 BvwB WILSON, Don E. (1993). Order Proboscidea. In *Mammal species of the world: a taxonomic and geographic reference* (2nd edition) (ed.

- Don E. Wilson and DeeA M. Reeder), p. 367. Smithsonian Institution, Washington, D.C., 1,206 pp.
- 5724 BwvB WILSON, Don E. and REEDER, DeeA. M. (eds). (1993). Mammal species of the world: a taxonomic and geographic reference (2nd edition). Smithsonian Institution, Washington, D.C., 1,206 pp. **Annotation:** Reviewed in "Journal of Mammalogy", 75(1):236-243 [MPK].
- 5725 BjcB WILSON, Edward O. (1992). The diversity of life. Belknap Press, Cambridge, Massachusetts, 424 pp. **Annotation:** Keystone species, sea otter, ants, elephants, rhinos, other big herbivores (pp. 164-70) [JS].
- 5726 EapC WILSON, J. F. (1991). A continuum model of elephant trunks. Journal of Biomechanical Engineering, 113:79-84. **Annotation:** Relates trunk parameters of loading geometry, and muscle structure to necessary conditions of static equilibrium [E/PFH/JMH].
- 5727 EecW WILSON, Jane. (1988). Sri Lanka declares a new national park. Oryx, 22(4):193-194. **Annotation:** Horton Plains Nature Reserve was upgraded; plan calls for reintroducing elephants [ECM].
- 5728 LjcW WILSON, R. T. (1988). Vital statistics of the baobab (*Adansonia digitata*). African Journal of Ecology, 26(3):197-206. **Annotation:** *Loxodonta africana*, ecology. See Reference no. 1971 [MPK].
- 5729 BqgC WINSLOW, Samuel. (1991). Management's view of an elephant program. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 75-76. Burnet Park Zoo, Syracuse, 161 pp.
- 5730 EhtW WISE, D. H. (1991). Elephant catching. IUCN/SSC Asian Elephant Specialist Group Newsletter, 7:28-35 (reprinted from the "Strand Magazine", Vol. IX, 1995). **Annotation:** Elephant training in Malay Peninsula in last century [JLP].
- 5731 EapU WISSDORF, H. AND BACH, F. (1988). Anatomische Grundlagen zur Blutentnahme aus der V. caudalis centralis, dorsal am Schwanz des Indischen Elefanten. Effem-Forschung für Heimtierhaltung, Report 26:1-4.
- 5732 EaQC WISSDORF, H., POULSEN-NAATRUP, C., and NAATRUP, C. P. (1989). Presentation of the vena caudalis centralis, a further important anatomical structure for venipuncture in Asian elephant situated dorsally in the tail. Anatomia Histologia Embryologia, 13(3):279-280.
- 5733 EaQC WISSDORF, H., BACH, F., LEOPOLD-KEIGHLEY, B., and KRISTINSSON, G. (1987). Anatomical basis for epidural anaesthesia in the Indian elephant. In Erkrankungen der Zootiere (ed. R. Ippen and H-D. Schroder), pp. 157-165. Verhandlungsbericht des XXIX. Internationalen Symposiums über die Erkrankungen der Zootiere, Cardiff, Strasbourg, Universite Louis Pasteur, Akademie-Verlag, [East] Berlin, German Democratic Republic [in German].
- 5734 BbaB WOLKOMIR, R. and WOLKOMIR, J. (1990). When animals sound off. National Wildlife, 28(3):49-50. **Annotation:** Katharine Payne's research, proboscideans, vocalization, hearing [MPK].
- 5735 LdaB WOOD, D. T. (1992). Oesophageal choke in an African elephant. The Veterinary Record, 131(23):536-537.
- 5736 \*evU WOODBURNE, M. O. (ed.). (1987). Cenozoic mammals of North America: geochronology and biostratigraphy. University of California Press, Berkeley, XV + 336 pp. **Annotation:** Reviewed by Novacek, 1989, in "Quaternary Review of Biology", 64(1):63-64.
- 5737 LdjW WOODFORD, M. H. (1996). "Exotic" diseases emerge in Africa's wildlife. African Wildlife News, 31(4):1, 3-4. **Annotation:** Fothergill Island, Zimbabwe. P. 1: box on 'trunk paralysis' [MPK].
- 5738 +yhU WOODHOUSE, Bert [H. C.]. (1988). Elephants: pink, red, white, black & grey. The Rhino & Elephant Journal, 1(1):18-21. **Annotation:** Elephants depicted in numerous rock paintings illustrate range or distribution of species and importance they held in mythology and lives of prehistoric people [ID-H/M&DR].
- 5739 +yhU WOODHOUSE, Bert [H. C.]. (1991). Masterpiece on the rocks. The Rhino & Elephant Journal, 5:34-36.
- 5740 +yhU WOODHOUSE, H. C. (Bert). (1996). Elephants in rock art. The Rhino & Elephant Journal, 10:24, 26-27. **Annotation:** Photographs of rock paintings of elephants, Eastern Cape, South Africa [SLS].
- 5741 EdqC WOODLE, Kate, KEPES, Terri, and DOYLE, Chuck. (1991). Making a protective boot for an Asian elephant. Proceedings of the 12th International Elephant Workshop held at Burnet Park Zoo, Syracuse, New York, October 16-19, 1991, pp. 104-105. Burnet Park Zoo, Syracuse, 161 pp.
- 5742 LicW WORLD WILDLIFE FUND. (1989). U.S. bans ivory from Somalia. Animal Kingdom, May/June:6.
- 5743 LcwW WORLD WILDLIFE FUND. (1991). Beyond the ivory ban: WWF's strategy for saving the African elephant. World Wildlife Fund, Washington, 10 pp.
- 5744 LuiW WRIGHT, D. (1990). Sport hunting. In The future of Botswana's elephants (ed. P. Hancock), pp. 35-36. Proceedings of Kalahari Conservation Society Symposium on Elephants (Gaborone, Botswana, 10 November 1990), 96 pp.
- 5745 LucW WRIGHT, R. M. (1995). Crossing the border. African Wildlife News, 30(2):2. **Annotation:** Three bulls from ANP wandered into Tanzania shot by legal hunters. See Reference no. 2951 [MPK].
- 5746 LbcW WUNDER, Matthew Bruce. (1997). Of elephant and men: crop destruction, CAMPFIRE, and wildlife management in the Zambezi Valley, Zimbabwe. D. Phil. Thesis, University of Michigan, 360 pp.
- 5747 BhtC WYLIE, Kenneth C. (1992). Elephants used as war machines. In Elephants: majestic creatures of the wild (consult. ed. J. Shoshani), pp. 146-148. Rodale Press, Emmaus (Pennsylvania), 240 pp. Also, Simon & Schuster, London.
- 5748 +xvB WYSS, A. R., NOVACEK, M. J., and MCKENNA, M. C. (1987). Amino acid sequence versus morphological data and the interordinal relationships of mammals. Journal of Molecular Biology and Evolution, 4(2):99-116.
- 5749 EhmW XIANG, Zhu and SANTIAPILLAI, Charles. (1993). [Reports of] Asian Elephant Specialist Groups. Species, 20:54-55.
- 5750 EcwW XIANG, Zhu and SANTIAPILLAI, Charles. (1995). Conservation of elephants in Xishuangbanna, China. In A week with elephants (ed. J. C. Daniel and H. S. Datye), pp. 249-255. Bombay Natural History Society/Oxford University Press, Bombay, 535 pp.
- 5751 \*evU XIE, J. and XU, J. (1988). Some mammalian fossils from Malan Loess, Huachi, Gansu. Vertebrata Palasiatica, 26(2):149-52 + 1 plt [in Chinese with English abstract]. **Annotation:** *Palaeoloxodon naumanni* [JLP].
- 5752 \*vwU XIE, Junyi. (1989). Late Tertiary strata and fossil mammals of Gansu, China. Proceedings of International Symposium on Pacific Neogene Continental and Marine Events, IGCP-246:119-27.
- 5753 +ovB YANG, Hong, GOLENBERG, Edward M., and SHOSHANI, Jeheskel. (1996). Phylogenetic resolution within the Elephantidae using fossil DNA sequence from the American mastodon (*Mammuth americanum*), as an outgroup. Proceedings of the National Academy of Sciences USA, 93(3):1190-1194. **Annotation:** Using non-proboscidean taxa (human, pig, and rhino) and a proboscidean taxon, American mastodon,

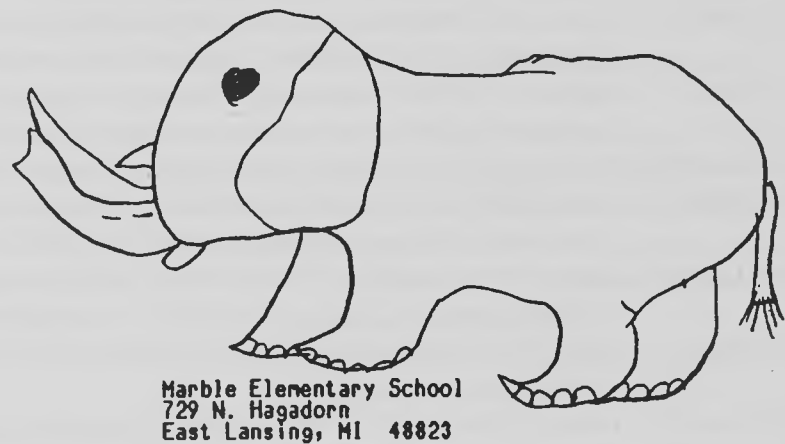
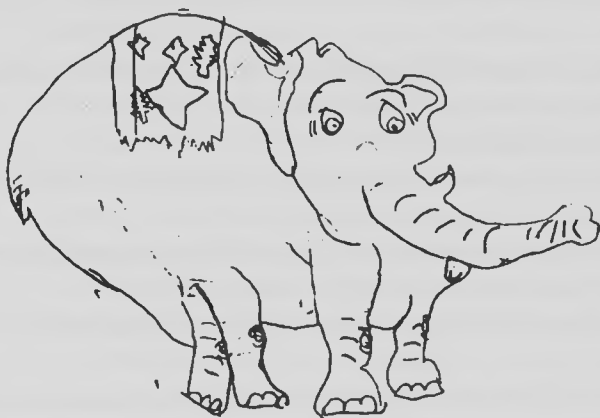


- Mammuth americanum* (family Mammutidae) as outgroup comparisons, authors tested relationships among ingroup taxa: woolly mammoth, *Mammuthus primigenius*, and living elephants, *Loxodonta africana*, *Elephas maximus* (family Elephantidae). Data obtained support classical morphological-based hypothesis from molecular standpoint, that *Mammuthus* and *Elephas* are more closely related to each other than either is to *Loxodonta*. Rates of molecular evolution indicate that *Mammuthus-Elephas* lineage evolves about 50% faster than *Loxodonta* lineage, in agreement with prior observations of relative rates of morphological evolution in these lineages [JS].
- 5754 +ovB YANG, Hong, GOLENBERG, Edward M., and SHOSHANI, Jeheskel. (1997). A blind testing design for authenticating ancient DNA sequences. Molecular Phylogenetics and Evolution, 7(2):261-265. **Annotation:** In "blind" tests, only one co-authors knew identification of specimens, whereas, others worked with assigned numbers; cf. Reference no. 5753 [JS].
- 5755 +ovB YANG, Hong, GOLENBERG, Edward M., and SHOSHANI, Jeheskel. (1997). Proboscidean DNA from museum and fossil specimens: an assessment of ancient DNA extraction and amplification techniques. Biochemical Genetics, 35:165-179. **Annotation:** Details on techniques described in Yang *et al.* (1996), Reference no. 5753 [JS].
- 5756 \*avU YE, J., WU, W., and JIA, H. (1990). Reconstruction of the jaw-closing muscles of *Platybelodon tongxinensis* (Amebelodontidae, Proboscidea) and discussion of cranial evolution from long-jawed mastodont to short-jawed elephantid. Vertebrata Palasiatica, 28(4):284-295 [in Chinese with English abstract].
- 5757 \*avU YE, Jie, QIU, Zhanxiang, and CHEN, Jingzhi. (1989). Comparative study of a juvenile skull of *Platybelodon tongxinensis*. Vertebrata Palasiatica, 27(4):284-300 + 2 plts [in Chinese and English].
- 5758 BicW YELD, John. (1990). Tuskprinting: a winning tool against ivory poachers? African Wildlife, 44(1):17, 19-20. **Annotation:** Research project assessing ability to trace sources of ivory through isotopic signature analysis [ID-H/M&DR].
- 5759 LcwW YELD, John. (1995). It's an ill wind that blows no good [Editorial]. African Wildlife, 49(1):3.
- 5760 BicW YOUNG, T. P. (1994). Natural die-offs of large mammals: implications for conservation. Conservation Biology, 8(2):410-418. **Annotation:** *Loxodonta africana*, mortality, drought, TNP [MPK].
- 5761 LewW YOUNG, T. P. and LINDSAY, W. K. (1988). Role of even-age population structure in the disappearance of *Acacia xanthophloea* woodlands. African Journal of Ecology, 26(1):69-72. **Annotation:** *Loxodonta africana*, habitat alteration, ecology [MPK].
- 5762 \*avU YOUNG, Timothy S. and LAERM, Joshua. (1993). A late Pleistocene vertebrate assemblage from the St. Marks River, Wakulla County, Florida. Brimleyana, 18:15-57.
- 5763 LewW YUMOTO, Takakazu, MARUHASHI, Tamaki, YAMAGIWA, Juichi, and MWANZA, Ndunda. (1995). Seed-dispersal by elephants in a tropical rain forest in Kahuzi-Biega National Park, Zaire. Biotropica, 27(4):526-529. **Annotation:** Dung was examined for seeds, fruit, seedlings. Benefits derived from elephant dispersal vary according to characteristics of plant species and vegetation type [ID-H/M&DR].
- 5764 BqtC YZNAGA, Michael A. (1988). Elephant enrichment - a learning experience. In Proceedings of the Ninth Annual Elephant Workshop, held in Jacksonville, Florida, December 7-10, 1988, pp. 78-80. Jacksonville Zoological Park, Florida, 145 pp.
- 5765 \*evU ZALASIEWICZ, J. A., MATHERS, S. J., HUGHES, M. J., GIBBARD, P. L., PEGLAR, S. M., HARLAND, R., NICHOLSON, R. A., BOULTON, G. S., CAMBRIDGE, P., and WEALTHALL, G. P. (1988). Stratigraphy and palaeoenvironments of the Red Crag and Norwich Crag formations between Aldburgh and Sizewell, Suffolk, England. Philosophical Transactions of the Royal Society of London, B, 322:221-272.
- 5766 BraB ZAREMBKA, F. R., PLOTKA, E. D., SEAL, U. S., SIMMONS, L. G., TEARE, A., PHILLIPS, L. G., and HINSHAW, K. C. (1987). Luteinizing hormone and progesterone cycles in African and Asian elephants [Abstract]. Biology of Reproduction, 36(Supplement)1:129. **Annotation:** See Reference nos. 4728, 2944 [MPK].
- 5767 \*avU ZHANG, Baokun. (1993). A preliminary study on Miocene mammalian fauna from Ningxia, China. Memoirs of Beijing Natural History Museum, 53:252-258 [in Chinese].
- 5768 LicW ZIMBABWE DEPARTMENT OF NATIONAL PARKS & WILD LIFE MANAGEMENT. (1989). Why Zimbabwe opposes banning the ivory trade. Swara, 12(5):8-9. **Annotation:** Banning ivory trade as positive action for elephant conservation as effective wildlife management programs involving local communities. Suggests management policy like Zimbabwe's CAMPFIRE program, furthers elephant conservation more than imposing external ban [ID-H/M&DR].
- 5769 LcwW ZIMBABWE DEPARTMENT OF NATIONAL PARKS & WILD LIFE MANAGEMENT. (1993). Zimbabwe: at the leading edge of conservation. DNPWLM, Harare, 11 pp.
- 5770 BqgC ZOLL, Donald Atwell. (1992). Where's Beethoven? protected contact reconsidered. The 13th International Elephant Workshop, Atlanta, 1992, pp. 143-151. Zoo Atlanta, Georgia, 151 pp.
- 5771 \*vwU ZONG, G. (1987). Note on some mammalian fossils of Yanyuan, Sichuan. Vertebrata Palasiatica, 25(2):137-145 + 2 plts [in Chinese with English abstract].
- 5772 \*vwU ZONG, G. (1992). Occurrence of proboscidean genus *Stegolophodon* in China. Vertebrata Palasiatica, 30(4):287-294 + 1 plt [in Chinese with English abstract].
- 5773 \*avU ZONG, Guanfu. (1995). On new material of *Stegodon* with recollections of the classification of *Stegodon* in China. Vertebrata Palasiatica, 33(3):229-230.
- 5774 \*evU ZONG, Guanfu, TANG, Y., LEI, Y., and LI, S. (1989). Hanjiang Zhongguoruchixiang [=The Hanjiang mastodont (*Sinomastodon hanjiangensis* nov. sp.)]. Academic Press, Beijing [in Chinese with English summary].
- 5775 EgmB Zoological Survey of India. (1994). The red data book on Indian animals. Part 1: Vertebrata (Mammalia, Aves, Reptilia, and Amphibia) (ed. Director, Zoological Survey of India), pp. Zoological Survey of India, Calcutta, 534 pp. **Annotation:** Pages 155-159 cover the Asian elephant, *Elephas maximus* Linnaeus, 1758, order Proboscidea, family Elephantidae (V. C. Agrawal, compiler). Systematics, distribution, tusks, population, captivity, ecology, habitat, conservation, social relations, human relations, poaching [JS].
- 5776 LbqC ZWEIG, Bradley G. and FORTHMAN, Debra L. (1992). Behavioral enrichment for captive African elephants (*Loxodonta africana*). The 13th International Elephant Workshop, Atlanta, 1992, pp. 43-54. Zoo Atlanta, Georgia, 151 pp.
- 5777 \*vaU ZYMELA, S., SCHWARCZ, H. P., GRÜN, R., STALKER, A. M., and CHURCHER, C. S. (1988). ESR dating of Pleistocene fossil teeth from Alberta and Saskatchewan. Canadian Journal of Earth Science, 25:235-245. ■

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JUNIOR ELEPHANT BIBLIOGRAPHY: 1987 — 1999

Dawn Grimes 8yr. old.  
July 31, 1984



Marble Elementary School  
729 N. Hagadorn  
East Lansing, MI 48823

**TO OUR YOUNG READERS AND TO READERS YOUNG AT HEART**

This section of *ELEPHANT / PROBOSCIDEA BIBLIOGRAPHY* is geared to develop and expand interest in elephants and to stimulate future scientists to get involved in wildlife conservation, especially of elephants. Elephants have been classified as “Keystone Species”, or “Super Keystone Species” [a]. They modify their habitat and other animals benefit from these changes. Because elephants are the largest living mammals, saving enough habitat for them to live comfortably ensures that smaller animals and plants in the same ecosystem can be saved for future generations. Predictions for a gloomy future for elephants have been made; we must do our utmost to preserve a better future for elephants [b].

Many of you have written to us, and we were unable to respond to the myriad letters; we apologize for any inconvenience this may have caused. A large number of the letters from children were decorated with drawings. We present two of them here, see above.

The drawing on the left is from Dawn Grimes, 8 years old (in 1984) from Belle Ann Elementary School, Ortonville, Michigan USA, and the one on the right was sent with a letter (in 1991) from Kara Chapin, Robert Compeau, and Kathryn Revitte, Second Grade Class of Marble Elementary School East Lansing Michigan, USA.

We hope that the annotated references given here [c] and the section “Frequently Asked Questions about Elephants” [d] will answer your questions and inspire you to share your knowledge with your friends and families. The Editors.

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FOOTNOTES: [a]. see Reference nos. 4642, 5670, 5127, 5128; [b]. see Reference no. 5125; [c]. see introductory comments and explanation for codes at the beginning of *ELEPHANT / PROBOSCIDEA BIBLIOGRAPHY*, and other references there that may be suitable for young readers; [d] see Contents of this issue of *Elephant*.

## PART II. JUNIOR ELEPHANT BIBLIOGRAPHY

- 5778 LewW ABE, Eve Lawino. (1994). The elephant. Wildlife, (Wildlife Clubs of Uganda), pp. 5-6. **Annotation:** General ecology, former range and present status of elephants in Uganda. Present population of elephants about 2,000 [ID-H/M&DR].
- 5779 LcgW ANONYMOUS. (1992). Adopt an Ele family. Trumpet (The ELEFRIENDS Junior Newsletter), Issue 6:7. **Annotation:** Introduction of a program to help support elephants of ANP and to educate young people about elephants [SLS].
- 5780 BicW ANONYMOUS. (1992). CITES report. The elephant wins! Trumpet, Summer term, Issue 5:3.
- 5781 LcwW ANONYMOUS. (1993). Project report: West Africa. Trumpet (The ELEFRIENDS Junior Newsletter), Issue 7:4-5. **Annotation:** Discusses Elefriends' project to raise money for West Africa elephants [E/ECM].
- 5782 BgzB ARNOLD, Caroline and Hewett, Richard (photographer). (1993). Elephant. Morrow Junior Books, New York, 48 pp. **Annotation:** Follows "Mailika", a 4-year-old African elephant at Marine World Africa, in Vallejo, California (USA) [ECM].
- 5783 BgjB BARKHAUSEN, A. and GEISER, F. (1994). Elephants. Gareth Stevens, Animal Families, Milwaukee (Wisconsin).
- 5784 BgjB BARRETT, N. S. (1988). Elephants. Picture Library series, Franklin Watts.
- 5785 EfcC BARRY, David and PERONNE, Donna. (1994). The Rajah's rice: a mathematical folktale from India. W. H. Freeman and Company, New York, 28 unnumbered pages (Scientific American Books for Young Readers). **Annotation:** An Indian ruler (rajah) in a small village in ancient India lived in a luxurious palace with 20 elephants who were not fed well. The rajah cared more for himself than the villagers. A clever girl named Chandra (the Elephant Bather) "healed" the elephants and gained the rajah's confidence; he promised her any reward she wanted. Instead of choosing gold or precious jewelry, she asked him to give rice to hungry villagers in such a way that on the first square of a chessboard, he would put two grains, and double the amount in every square (2 grains in the first square, 4 in the second, 8 in the third, and so forth). By the 64th square of the chessboard, the rice amounted to the size of Mt. Kilimanjaro (or "...you get India, covered knee deep in rice"), but the king did not have enough rice in his palace to complete the reward as he promised, so he asked Chandra what he should do. "You can give the people of the village the land they farm, and take only as much rice as you need for yourself", answered Chandra [JS].
- 5786 BgzC BEAGLE, Peter and DERBY, Pat. (1995). In the presence of elephants. Capra Press, Santa Barbara, 84 pp. **Annotation:** True story of two people, Pat Derby and Ed Stewart, and their relationship with elephants. Very little text; black and white photos on pages 16-84. Reviewed by "The San Francisco California Chronicle", January 21, 1996, and reprinted in "Circus Report", 6:19-21 [ECM].
- 5787 LqtC BLUMBERG, Rhoda. (1992). Jumbo. Bradbury Press, New York, 35 unnumbered pages. **Annotation:** Illustrated by Jonathan Hunt. "No one guessed that the London Zoo's scrawny new elephant would become an international celebrity, or that his name would become a household word meaning bigger than big: JUMBO" [E/ECM].
- 5788 LicW BRAUN, Ernest. (Photographer). (1991). Only elephants should wear ivory. Pinnacle Publications, Greenbrae (California). **Annotation:** Poster depicting African elephants, advertised in "Wildlife Conservation", July, August, 1991 [ECM].
- 5789 BacW BRIGHT, Michael. (1990). Elephants. Gloucester Press, New York, 31 pp. **Annotation:** Examines physical characteristics, behavior, and life cycles of elephants and describes their relationships with humans and their status as an endangered species [E/SCSPL].
- 5790 LjwW CARAS, Roger A. (1995). A most dangerous journey: the life of an African elephant. Dial Books, New York, 189 pp.
- 5791 LgiW CHURCHMAN, D. (1994). Cynthia's elephants. Ranger Rick's Nature Magazine, 28(9):18-27. **Annotation:** Cynthia Moss, ANP, social relations [MPK].
- 5792 LapB DEWAN, Ted and PARKER, Steve. (1992). Inside the whale and other animals. Delacorte Press, New York, 48 pp. **Annotation:** Each animal depicted is special, including elephants, frogs, snails, spiders, others. Each has a different design solution to the age-old problems of living. African elephant is on pages 12-13 [E/ECM].
- 5793 EcwW DOBIE, Duncan (illustrated by Tom Sexton). (1994). If you've ever seen a rhinoceros charge. Killer Whale Productions, a Division of: Bucksnot Publishing, Ltd., Marietta (Georgia), 36 unnumbered pages. **Annotation:** For everyone! A universal message about the plight of many wildlife species and the state of the environment in general [E/ECM].
- 5794 EcwW DORROS, A. (1994). Let's read and find out science: elephant families. HarperCollins.
- 5795 LjwW DOUGLAS-HAMILTON, Oria. (1990). The elephant family book. Picture Book Studio, Saxonville, Massachusetts, 56 unnumbered pp. **Annotation:** *Loxodonta africana*, mortality, juvenile, social relations. About female twins ('Straight Tail' and 'Crooked Tail') at LMNP; mother was 'Bahati'. Straight Tail died about two weeks before seasonal rains. Crooked Tail survived [MPK].
- 5796 UrbC FORD, Miela. (1994). Little elephant. Greenwillow Books, New York, 20 pp. Photographs by Tana Hoban. **Annotation:** Story of a little zoo elephant playing in the water under the watchful eyes of his mother [ECM].
- 5797 LzgU FOWLER, Allan. (1990). Rookie read-about™ Science: it could still be a mammal. Childrens Press, Chicago, 32 pp. **Annotation:** Color photographs (supplied by Valan Photos) with questions and answers to explain what a mammal is. Very well organized and messages are strongly conveyed. African elephant appears on page 22 [ECM].
- 5798 BgpB GANERI, Anita and FRICKER, Steve. (1997). Creature features. Simon and Schuster Books for Young Readers, New York, 30 pp. **Annotation:** Text by A. Ganeri, illustrations by S. Fricker. "With clever analogies, children can learn about how animals' bodies work and how they are specially adapted to their own particular lifestyle and environment" [E/ECM, back cover]. The elephant appears on cover and pp. 18-19.
- 5799 \*vhU GIBLIN, James Cross. (1999). The mystery of the mammoth bones: and how it was solved. HarperCollins Publishers, New York, 97 pp. **Annotation:** When Charles Wilson Peale excavated some giant bones in New York State in 1801, he confirmed existence of a previously unknown animal — the mastodon, and provided evidence that Earth is much older than anyone imagined [E/ECM].
- 5800 \*zgU GILL, Shelley and CARTWRIGHT, Shannon. (1988). Mammoth magic (2nd edition). Paws IV Publishing, Homer (Alaska), 30 unnumbered pp. **Annotation:** Reading level elementary school, colored illustrations. "A charming story about a timid Eskimo boy who takes a step closer to manhood with the aid of his wise grandfather and a dreamtime vision of a woolly mammoth" [E/ECM].

- 5801 LgcW GOODALL, Jane. (1991). Elephant family. Animal Series, Madison Marketing, Toronto, 26 unnumbered pages.
- 5802 +vhB GRACE, Eric S. (1993). Elephants. Key Porter Books, San Francisco (California), Sierra Books for Children, Series: Sierra Club Wildlife Library, 64 pp. **Annotation:** The wild elephant in its natural habitat. Color photos, illustrations and information boxes, index [E/ECM].
- 5803 LzfW GREAVES, Nick. (1996). When elephant was king: and other elephant tales from Africa. Southern Book Publishers, Halfway House, South Africa, 144 pp.
- 5804 BajB HARMAN, Amanda. (1996). Endangered!: elephants. Benchmark Books, Tarrytown, New York, 32 pp. **Annotation:** "Provides description of physical characteristics and habits of Asian and African elephants. Appealing full-color photos, crisp layout and clear texts. Since there are only two species of elephants and three species of leopard, each animal can be described concisely in this brief text" [SCSPL].
- 5805 BcmC LAUB, T., SHANNON, P., and SMYTHE, V. (1993). The live elephant book: a teacher's guide to fun and learning with elephants. Live Elephant, Inc., Canton, Massachusetts, 135 pp.
- 5806 +gvB LEGG, Gerald. (1994). The X-Ray picture book of amazing animals. Penguin Books Canada Limited, Toronto, 48 pp. **Annotation:** Living and extinct elephants and their relatives [SLS].
- 5807 BygU LE TORD, Bijou. (1993). Elephant moon. Delacorte Press, Bantam Doubleday Dell Publishing Group, Inc., New York, 30 unnumbered pages. **Annotation:** "In delicate and exquisite watercolor paintings and lyrical and poetic words, Bijou Le Tord pays tribute to these majestic and intriguing creatures [elephants] who are disappearing from our earth" [E/ECM; inside front cover].
- 5808 BgzB LUTHER, S. (1989). Elephant trivia. Ranger Rick's Nature Magazine, Volume not provided:38-47.
- 5809 BgzB MAHY, Margaret. (1987). 17 kings and 42 elephants. Dial Books for Young Readers, New York, total pages not provided. **Annotation:** For ages 4-8. One of the best illustrated children's books in 1987. "Patricia MacCarthy's lush, glowing batik paintings on silk capture the exuberant humor of Mahy's tongue-tingling [rhymes]" [JLP].
- 5810 LjgW MARTIN, Chryssee Perry. (1997). Review of "Little big ears: the story of Ely" by Cynthia Moss and Martyn Colbeck, published 1997 by Simon and Schuster Books for Young Readers, New York, 192 pp. Swara, 20(3):31. **Annotation:** Excellent book about a real elephant name "Ely", featured in BBC films "Echo of the elephants" and "Echo of the elephants: the next generation" [ECM].
- 5811 \*zvU MARTIN, Rafe and GAMMELL, Stephen. (1989). Will's mammoth. Putnam, New York, unpagged. **Annotation:** Fiction. This is a "tale of the imaginary adventures of a little boy who is waiting for his supper. Will's adventures aboard his faithful mammoth are strikingly illustrated by S. Gammell, winner of 1988 Caldecott medal" [E/FDR].
- 5812 EqtC MCCLUNG, Robert M., illustrated by Marilyn JANOVITZ. (1991). America's first elephant. Morrow Junior Books, New York, unpagged. **Annotation:** How the first elephant came to America in 1795, met President Washington and toured the country [E/SCSPL].
- 5813 EqtC MCCLUNG, Robert M. (1993). Old Bet and the start of the American circus. Morrow Junior Books, New York, unpagged. **Annotation:** Describes performing career of the elephant "Old Bet" whose traveling exhibition under management of Hackaliah Bailey in early nineteenth century gave rise to tradition of the American circus [E/SCSPL].
- 5814 LbjW MOSS, Cynthia J. and COLBECK, Martyn. (1992). Echo of the elephants: the story of an elephant family. William Morrow and Company, Inc., New York, 192 pp. Also published by BBC Books, London. **Annotation:** Adventures of elephant family over 18 months in ANP. Televised version was aired on Public Broadcasting System stations in 1992 [SLS]. Story of the elephant called "Echo" is an attempt to open a window into the life of one elephant family from January 1990 to June 1991. Covers a severe drought, includes birth, death, courtship, mating, fighting and playing [ID-H/M&DR].
- 5815 LjgW MOSS, Cynthia J. and COLBECK, Martyn. (1997). Little big ears: the story of Ely. Simon and Schuster Books for Young Readers, New York, 30 unnumbered pages. **Annotation:** Text by C. Moss, photographs by M. Colbeck. When "Ely" was born in ANP, his legs were bent under and stiff, making it impossible for him to stand and drink milk from his mother. Reviewed by Chryssee Perry Martin in Swara, 20(3):31, who praised it as an excellent children's book about a real elephant name Ely, featured in the BBC films "Echo of the elephants" and "Echo of the elephants: the next generation" [ECM].
- 5816 LfzW MWANGI, M. I. (1994). The moving bush. Wildlife News, 29(3):2. **Annotation:** Kenyan boy's view of elephants in the wild. *Loxodonta africana*, mythology [MPK].
- 5817 BgaB PARKER, Steve and SHONE, Rob. (1997). The beginner's guide to animal autopsy. Copper Beech Books, Brookfield (Connecticut), 48 pp. **Annotation:** Written by Parker, illustrated by Shone; elephant is depicted on page 43 [ECM].
- 5818 LjcW PATENT, Dorothy Hinshaw. (1991). African elephants: giants of the land. Holiday House, New York, 40 pp. Photographs by Oria Douglas-Hamilton. **Annotation:** Well written with photos outlining general ecology, water use, family relationships and communication and problems of conservation in a manner understood by grade school students [ID-H/M&DR].
- 5819 LbgW PAYNE, Katharine [B.] (1992). Elephants calling. Face to Face in Science. Crown Publications, New York, 36 pp. **Annotation:** Through the eyes of a baby elephant in ANP, reader learns about African elephants and research on infrasonic communication among elephants [E/JLP]. Reviewed by Molly Dunham Glassman from the Baltimore Sun in Circus Report, No. 42:6. Focus on communication between elephants and work scientists have done in ANP, text and photos of daily life of an elephant herd geared to young readers [ID-H/M&DR].
- 5820 LgjW PENNER, Lucille Recht, illustrated by Betina Ogden. (1997). Baby elephant. Grosset & Dunlap, New York, 29 unnumbered pages. **Annotation:** "The world can be a very big place for a baby — even a baby elephant! Read all about a day in the life of a baby African elephant in this charming and fun book" [E/ECM].
- 5821 LgcC PFEFFER, Wendy. (1992). Popcorn Park Zoo: a haven with a heart. Julian, Messner, Englewood Cliffs, New Jersey, 64 pp. **Annotation:** Description and photo essay of institution which rescues and cares for animals that are sick, old, abused or about to be destroyed. Includes chapter on a young male African elephant, "Sonny", that had outgrown his home in New Mexico and was placed in Popcorn Park Zoo by Friends of Wildlife in California. Photo on pp. 52-3 shows healed tear in his trunk where a big cat may have injured him in Africa [E/JLP]. See Reference nos. 4160, 5179.

- 5822 BgzB PRELUTSKY, Jack. (1990). Something big has been here. Greenwillow Books, a division of William Morrow & Company, Inc., 160 pp. **Annotation:** Drawings by James Stevenson. Includes the poem "An elephant is hard to hide" on pages 148-149 with a sketch showing an attempt to hide an elephant in a dresser drawer [JS].
- 5823 LjgW PRINGLE, Laurence and MOSS, Cynthia. (1997). Elephant woman: Cynthia Moss explores the world of elephants. Atheneum Books for Young Readers, New York, 42 pp. **Annotation:** Photographs at elephant research camp among palm trees in ANP, elephants, young and old, frolicking, ecologizing, exploring bones of dead elephants. They can be recognized from each other by tusk shape, size, markings on their ears [JS].
- 5824 LgjW REDMOND, Ian. (1990). Animal habitats: the elephant in the bush. Oxford Scientific Films, Oxford, 32 pp. Also published as The elephant in the bush, published by Gareth Stevens Inc., Milwaukee (Wisconsin), same author and date. **Annotation:** Basic elephant ecology and behavior for 8-12 year old children [IR]. The world of elephants, by I. Redmond and V. Harrison, published Gareth Stevens, Milwaukee, 32 pp. — edited, abridged version of this book [MPK].
- 5825 LgjW REDMOND, Ian. (1990). Wildlife at risk: elephants. Wayland (Publishers) Ltd., East Sussex (England), 32 pp. **Annotation:** Elephant biology and conservation for 7-9 year olds [ECM].
- 5826 BgjB REDMOND, Ian. (1993). Eyewitness guides: elephant. Dorling Kindersley, London, 64 pp. **Annotation:** Picture filled book provides insight into various aspects of biology and ecology of Asian and African elephants and notes their long and present association with man as both wild and domesticated animal [ID-H/M&DR].
- 5827 LgjW REDMOND, Ian (photographs) and HARRISON, Virginia (text). (1990). The world of elephants. Belitha Press, London, 32 pp.; also, Gareth Stevens, Milwaukee. **Annotation:** Elephant behavior and ecology [IR]. Lives of elephants in natural settings, how they feed, defend themselves and breed. Adapted from Ian Redmond's "The elephant in the bush" [MPK].
- 5828 LbgW RUDNAL, Judith. (1995). Review of "Animals, animals, animals: African elephants" by A. Tibbits and A. Roocroft, published 1992 by Capstone Press, Mankato, Minnesota, 32 pp. Swara, January/February:22-23.
- 5829 EcwW SANFORD, William R. and GREEN, Carl. R. (1987). The Asiatic elephant. Crestwood House, Mankato (Minnesota), 47 pp. Editor: Howard Schroeder.
- 5830 BgjB SCHLEIN, Miriam. (1990). Jane Goodall's animal world: elephants. Atheneum, New York, 32 pp. **Annotation:** Color photos and illustrations with distribution and a phylogenetic tree (page 7), which includes proboscideans, hyraxes, and sea cows [E/JS].
- 5831 EtqC SCHMIDT, Jeremy. (1994). In the village of the elephants. Walker and Company, New York. **Annotation:** Photos by Ted Wood. Story of Bomman, apprentice mahout and Mudumalai, the elephant that is the lifetime responsibility of Bomman's father. Explains care given elephants, and respect and friendship between elephants and mahouts in Nilgiri hills, India. Reviewed in Scientific American, 271(6):118-119 [SLS].
- 5832 BpjB SHOSHANI, Jeheskel. (1999). It's a nose! It's a hand! It's an elephant's trunk! Natural History for Kids, supplement to "Natural History Magazine", October 1999. **Annotation:** Adapted from an article by Jeheskel Shoshani, "Natural History", November 1997. Find out what elephants can do with their versatile trunks [E/ECM].
- 5833 LfzW SIERRA, Judy. (1992). The elephant's wrestling match. Lodestar Books, New York, unpagged. Illustrated by J. Brian Pinkney. **Annotation:** Of all the animals challenged by the mighty elephant, only a tiny bat was able to defeat him in a battle of wits. Retold from a folktale of the Bulu people, Cameroon, Africa [E/ECM].
- 5834 BzgB SMITH, M. A. (1990). Akimbo and the elephants. Mammoth Books, London, 59 pp.
- 5835 EtqC SMITH, Roland and SCHMIDT, Michael J. (1998). In the forest with elephants. Harcourt Brace & Company, New York, 54 pp. **Annotation:** Describes the lives of timber elephants and oozies in Myanmar (formerly Burma). Part of the proceeds from this book will be dedicated to funding elephant reproduction research in Myanmar [JS]. Cf. ERGO The Elephant Resource Group of Oregon under "Organizations" in ENN.
- 5836 LgjW STIDWORTHY, J. and HEWITT, Rosalind. (1987). A year in the life: elephant. Silver Burdett Press, Morristown, New Jersey, 31 pp. **Annotation:** Beautiful illustrations, shows seasons of year and how elephants behave during these seasons in East Africa. Feeding, reproduction, family life, conservation [JGE].
- 5837 BgbB TAYLOR, [J.] David. (1990). Elephant and the scrub forest. Crabtree Publishing Company, New York, 32 pp. **Annotation:** "Children will learn about these highly intelligent and affectionate elephants, their fascinating method of communication and the many ways in which they use their trunks!" [E/ECM].
- 5838 LgzW TIBBITS, Alison and ROOCROFT, Alan. (1992). Animals, animals, animals: African elephants. Capstone Press, Mankato (Minnesota), 32 pp. **Annotation:** Introduction to physical characteristics, habits, and natural environment of African elephants [ECM].
- 5839 EqhC TSUCHIYA, Yukio and LEWIN, Ted. (1988). Faithful elephants: a true story of animals, people and war. Houghton Mifflin Company, Boston, 30 unnumbered pages. **Annotation:** Ages 4-10. Text by Yukio Tsuchiya, water colors by Ted Lewin, translated from Japanese by Tomoko Tsuchiya Dykes. A moving, beautifully illustrated, true tale of "John", "Tonky", and "Wanly", three elephants which lived in Ueno Zoo, Tokyo, Japan, during the World War II (1941-1945). The elephants were left to die (John is said to have died after 17 days of starvation) because there was a fear that if bombs hit the city's zoo some animals would escape and run amuck in the city (the elephants are buried on zoo grounds). First published in Japan in 1951, it has seen 70 printings, and is read aloud on Japanese radio every year to mark the anniversary [KMS]. John was starved to death (over 17 days), two others were also killed by withholding food and water!!! See also Reference no. 2460 [MPK].
- 5840 LgjW YOSHIDA, Toshi. (1989). Elephant crossing. Philomel books, New York, 32 pp. **Annotation:** Ages 4-8. Recounts typical activities of an elephant herd, personalizing without overly anthropomorphizing needs and dependence on environment [E/FDR].

## ADDENDA to ELEPHANT / PROBOSCIDEA BIBLIOGRAPHY

- 5841 \*avU FOSSIL MAMMAL RESEARCH GROUP for Nojiri-ko Excavation. (1990). Vertebrate fossils from the Nojiri-ko formation during the Lake Nojiri excavation (1987-1989). The Monograph of the Association for the Geological Collaboration in Japan, 37:111-134 [in Japanese with English abstract].
- 5842 \*avU FOSSIL MAMMAL RESEARCH GROUP for Nojiri-ko Excavation. (1993). Vertebrate fossils from the Nojiri-ko formation during the Lake Nojiri excavation (1990-1992). Bulletin of the Nojiri-ko Museum, 1:29-52 [in Japanese with English abstract].
- 5843 \*evU JOGER, U. (1996). Auf Mammutsuche auf der Wrangel-Insel. Informationen aus dem Hessischen Landesmuseum Darmstadt, 2/1996:27-30.
- 5844 \*avU KONISHI, Shogo and TAKAHASHI, Keiichi. (1999). Mandibular morphology of stegodons from Japan, *Stegodon aurorae* and *Stegodon shinshuensis* (Proboscidea, Mammalia). Earth Science (Chikyu Kagaku), 53:3-18 [in Japanese with English abstract].
- 5845 BbgB LINDEN, Eugene. (1999). The parrot's lament: and other true tales of animal intrigue, intelligence, and ingenuity. E. P. Dutton, New York, 256 pp. **Annotation:** Reviews empathetic stories of animals displaying intelligence and fellow-feeling, with some references to controlled experiments to help put the acts in context. Do animals think, talk, and feel? To anyone who has ever owned a pet. Includes elephants who play hide-and-seek [E/JLP].
- 5846 \*evU OKAMURA, Yoshiaki, KITABAYASHI, Eiichi, and TAKAHASHI, Keiichi. (1997). Preliminary report of the footprint fossils from Oita Prefecture, Southwest Japan. Journal of Fossil Research, 30: 55-65 [in Japanese]. **Annotation:** A report on footprint fossils of elephants [KT].
- 5847 \*evU OKAMURA, Yoshiaki, TAKAHASHI, Keiichi, KUROKAWA, Akira, and SHIGA FOSSIL FOOTPRINT RESEARCH GROUP. (1997). The way of investigation of fossil footprints from the Kobiwako Group. Journal of Fossil Research, 30:24-33 [in Japanese]. **Annotation:** Reports on footprint fossils of elephants are included [KT].
- 5848 \*evU REESE, David. (1999). Pygmy elephant. In Faunal extinction in an island society: pygmy hippopotamus hunters of Cyprus (ed. Alan H. Simmons and Associates), pp. 161-?163. Kluwer Academic/Plenum Publishers, New York.
- 5849 LicU SALIH, Halima A. A. (1994). International envoy registers Sudanese ivory. SUDANOW (April, 1994), Vol. 19(4):24-25. **Annotation:** Tom Milliken, Director East/South Africa office of TRAFFIC visited Sudan (November 1993) to record tusks in storage. Tusks are said to be legally obtained, numbering 10,884 and valued at \$25,000,000; some tusks are about two meters long (based on photographs in Reference no. 4962)[JS].
- 5850 \*evU SONDAAR, P. Y. (1988). Pleistocene man and *Stegodon* on the island of Flores (Indonesia). Abstracts of the International Conference "Early man in island environments", Oliena (Sardegna), 25 September-2 October 1988, page 115.
- 5851 \*evU SONDAAR, P. Y. (1992). Toetoe en de kleine mammoet. Met tekeningen van Hans Brinkerink. Kluwer Juegdboeken Ede, Antwerpen, 48 pp.
- 5852 \*avU TAKAHASHI, Keiichi. (1996). Study on the Morphology of Elephantidae fossils in Japan. Odontology, 1:51-53.
- 5853 \*evU TAKAHASHI, Keiichi. (1998). Vertebrate fossils from Kobiwako Group and its origins. Urban Kubota, 37:46-57 [in Japanese].
- 5854 \*evU VAN DEN BERGH, Gert D. (1997). The late Neogene elephantoid-bearing faunas of Indonesia and their paleozoogeographic implications: a study of the terrestrial faunal successions of Sulawesi, Flores and Java, including evidence for early hominid dispersal east of Wallace's Line. PhD Dissertation, Utrecht University, Part 1, 1-364; Part 2, figures, tables and plates. **Annotation:** Describes "*Stegodon sondaari* Van den Bergh, 1997 (Proboscidea, Elephantidae)" named in honor of Paul Y. SONDAAR [E/ECM].
- 5855 BgjB VAUGHAN, Terry A., RYAN, James M., CZAPLEWSKI, Nicholas J. (2000). Mammalogy (4th edition). Saunders College Publishing, Harcourt Brace Jovanovich Publishers, Fort Worth (Texas), x + 565 pp. + Glossary (G-1 to G-13) + Bibliography (B-1 to B-63) + Index (I-1 to I-17). **Annotation:** Order Proboscidea: elephants on pages 247-251. The phylogenetic tree on page 248 is after Shoshani 1997, page 38; cf. Reference no. 5137 [GHM].

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