

# Analysis of data on endangered species consultations reveals nothing regarding their economic impacts

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The interagency consultation provisions of the Endangered Species Act are critical to its implementation and have been at the center of the most high-profile controversies triggered by its implementation, including the battles over the Tellico Dam, the Northwest forests, the Klamath River, and, more recently, management of the San Francisco Bay-Delta. Although the Fish and Wildlife Service (Service) has engaged in consultation with other federal agencies tens of thousands of times (1), researchers have conducted little empirical research regarding their costs and benefits. We applaud Malcom and Li (1) for endeavoring to fill the void by analyzing data on all Service consultations from January 2008 to April 2015. We have no reason to doubt their principal empirical findings.

Unfortunately, Malcom and Li (1) make claims regarding the implications of their analysis that are unsupported. For example, the authors suggest that their research contradicts the “common perception” that the consultation provisions hinder economic development. However, the authors made no effort to assess the economic consequences of consultation. In our experience, which includes involvement in hundreds of consultations over four decades, even informal consultation can result in major changes to or abandonment of projects with substantial economic implications. The Service’s consultation handbook (2) affirms its view that informal consultation may trigger a range of changes to proposed actions, including many that can be expected to impose societal costs.

Not only have the authors overstated the implications of their empirical findings but they have also downplayed data that do not support their narrative,

for example, emphasizing that the median duration of consultations is well within the maximum time frame prescribed by the act while glossing over the 1,200 instances in which the Service exceeded that time frame. Furthermore, the authors fail to acknowledge that data used with respect to formal consultation are misleading because the Service has unilateral authority to determine when a consultation package is complete, and therefore when formal consultation commences. In our experience, substantial time and resources frequently are expended before the Service agrees to initiate formal consultation.

Certain of the authors’ claims are contravened by facts, for example, the claim that no project has been significantly altered as a result of a jeopardy determination (1). This claim is countermanded by the Delta smelt biological opinion for Water Project operations in California. Although the authors reference this biological opinion (3), they dismiss its economic consequences. The Service’s “reasonable and prudent” alternative to Water Project operations restricts water supplies, resulting in reductions in the range of 700,000 acre ft·y<sup>-1</sup>, a loss equivalent to the water needed to supply 1.4 million households.

We agree with Malcom and Li (1) that policy should be set based on research rather than anecdote. However, summarizing data from the Service regarding the number and average length of consultations does not contribute to our understanding of the costs and benefits of consultation or serve to confirm or refute common perceptions. It would seem prudent for the authors to take care to distinguish between their empirical findings and their personal perspectives that do not flow from those findings.

1 Malcom JW, Li Y-W (2015) Data contradict common perceptions about a controversial provision of the US Endangered Species Act. *Proc Natl Acad Sci USA* 112(52):15844–15849.

2 US Fish and Wildlife Service; National Marine Fisheries Service (1998) *Consultation Handbook: Procedures for Consultation and Conference Activities Under Section 7 of the Endangered Species Act* (US Fish and Wildlife Service and National Marine Fisheries Service, Washington, DC).

3 US Fish and Wildlife Service (2008) *Formal Endangered Species Act Consultation on the Proposed Coordinated Operations of the Central Valley Project (CVP) and State Water Project (SWP)* (US Fish and Wildlife Service, Sacramento, CA).

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