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Tasteless, cheap, and southern? The rise and decline of the farm-raised catfish industry

By

Karen Aki Senaga

A Dissertation
Submitted to the Faculty of
Mississippi State University
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
in History
in the Department of History

Mississippi State, Mississippi

May 2016

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Tasteless, cheap, and southern? The rise and decline of the farm-raised catfish industry

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This dissertation traces the rise and recent decline of the farm-raised catfish industry. From the 1960s to the 2000s, farmers and scientists reengineered the river catfish into an agro-industrial food crop. Through extensive agricultural scientific research and marketing, the farmed catfish industry changed the history of the animal, its image, its flesh and bone, its natural environment, and its place in society all by changing—or in an effort to change—its taste. This process moved the catfish from the ranks of a muddy tasting wild fish mainly associated with the poor, to a tasteless, cheap food consumed by all classes and ethnicities. Former cotton planters dug ponds and raised the fish, as researchers at land-grant universities gave the fish a taste and image makeover. Developing a bland meat and an efficient way to grow it presented only half the problem. Workers, predominately black, poor, and female, slaved away in dank, dangerous processing plants. Some struck, despite labor power's impotence in a globalizing economy. Amid these labor disputes, competition from Vietnamese catfish imports began to trickle in onto the American seafood market. By the 2000s, the "Catfish Wars" had broken out between Asian importers and American farmers. Processors

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devised quality control measures that washed away the catfish's distinctive qualities. They had done their work so well, that consumers could tell no difference between fish from around the globe. The farm-raised catfish embodied a culinary, cultural, and technological transformation. My work shows the importance of sensory experiences to southern culture, foodways, African American history, environmental history, and agricultural history.

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DEDICATION

For my family and the Department of History at Mississippi State University.

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I wrote this dissertation with the help, inspiration, and support of many people. First and foremost, I would like to thank my advisor James C. Giesen, and committee members: Jason Morgan Ward, Mark D. Hersey, and Alison Collis Greene for their guidance throughout this process.

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I owe a lot to Jim Giesen. He was never afraid to tell me how wrong I was, how bad my writing was, or how I needed to get real. He was a great source of encouragement too. As a mentor, editor, and amateur psychiatrist, armed with humor, biting criticisms, and unwavering support, Giesen pushed me unlike any other. He always offered a critical ear and eye, and never turned down chance to brainstorm. I feel lucky every day because without him this project would not have progressed nor would I have completed it. Much of this dissertation is a result of his help and guidance. I am forever grateful. Also

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"Stakeholders" may only rear their heads a handful of times in this dissertation. Please thank him.

I owe a great deal of debt to faculty in Mississippi State's Department of History. Mark Hersey taught me environmental history. With great insight and compassion, his courses helped me create an intellectual landscape that I could and needed to till. Mark also pushed me to think differently about the catfish, both as an animal and as a sensory experience. He suggested that the catfish had to be the center of the project. Since then, I haven't looked back. Alison Collis Greene has given me a lot of advice about the profession, and helped me prepare for interviews. When I first met Mary Kathryn Barbier, I was terrified. Today she is a mentor and friend, and I feel lucky that I got over my anxiety. Anne Marshall's historiography course blew my mind away and I have her to thank for teaching me the basics of the field. Matt Lavine is an exemplary scholar and teacher. He's a dynamic orator to boot. He made me want to be a better teacher and better public speaker. In the summer of 2014, Alix Hui set up a sensory history reading group. Over good food, I was able to develop ideas of how my own work was a sensory history. From classes to workshops to comps, Peter Messer, Jason Phillips, Richard Damms, Godfrey Uzoigwe, Judith Ridner, Michael V. Williams, and Stephen Brain made me think and work harder. Stephen Middleton was always very supportive of my drive to become a better student and scholar. Thank you to Marsha Barrett for giving me advice about fear.

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CHAPTER I

INTRODUCTION "THE SOUTH EMBODIED IN ONE BITE OF FOOD"

Tucked between Lake Pontchartrain and Lake Maurepas, near Manchac, Louisiana, is Middendorf's Restaurant. The storied eatery has fed appetites yearning for fresh seafood since 1934. Today one of the eatery's most famous dishes is the Middendorf's Special: farm-raised catfish sliced paper thin, dredged in yellow cornmeal, and deep fat fried. When freshly made, the glistening oil shines across a lightly browned granular surface, its smell permeates the dense Louisiana air, and the crunchy yet delicate ribbons of gold easily give way under your teeth. It would be hard for most anyone to turn away a plate.

Middendorf's reputation as a classic southern catfish house made it the perfect setting for chef, restaurateur, and *Mind of the Chef* host Sean Brock to begin his televised devotional to the farm-raised catfish. Aired on September 28, 2013, the "Louisiana" episode of the acclaimed Public Broadcasting Service (PBS) series awakened new and old appetites for the whiskered scale-less industrial fish.[1]

The segment began with Brock and two other men waiting for their orders of Middendorf's Special. Joining Brock was a bespectacled historian, renowned connoisseur of all things southern chow, and Southern Foodways Alliance (SFA) director John T.

[1] "Louisiana," *Mind of the Chef,* (Public Broadcasting Service, September 28, 2013).

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Edge, along with award-winning Louisiana chef Donald Link. As their growling stomachs waited for their legendary plates, Edge educated Link, Brock, and jealous viewers on Middendorf's history.

Middendorf's opened its doors in 1934, amid the calamity and desperation of the Great Depression. Husband and wife team Louis and Josie Middendorf started their business, where she worked in the kitchen and he served the plates. In a post-Prohibition world, the couple ensured booze and food got to their hungry, thirsty customers. Josie didn't work alone in the kitchen, however, and Edge explained that generations of various families had worked in Middendorf's kitchens. As the camera cut to a few African American women dredging and frying white pieces of fish in the steamy kitchen, Edge observed, "There is a lot of sustaining employees who have made this place…" he momentarily paused and nodded, "work." Although it was no doubt that the owners' grit made the eatery function, the labor of black cooks and their skill in slicing catfish into skinny flat pieces was key to Middendorf's longevity and success. Although Edge did not mention it, when Middendorf's first opened the Special was made with wild catfish pulled on lines from the lakes surrounding the restaurant. Today they slice and fry farmed catfish, wheeled in from farms across the South every few days. Preparation was key, but the availability and visibility of the catfish was even more so.[2]

The farm-raised catfish is ubiquitous. "I feel like catfish is something that you see all over the South, everywhere, all the time," Brock observed. Everywhere you turned in the South, it seemed the catfish was at your back. "It's like the constant. It's the constant

[2] Ibid.

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variable. It's always there," the tattooed host claimed. Brock noticed that catfish made its appearance in both posh eateries and in "fish camps," places least infected by an exclusive air. Despite its prevalence, Brock observed, "A lot of people don't like catfish because…" and the SFA director interrupted him, "bad catfish." It was unclear if Edge and Brock were on the same page on whether the bad reputation applied to wild or farmed, or catfish in general. Regardless Brock nodded in agreement and said specifically, "bad farm-raised catfish" had ruined the animal's image.[3]

Brock wanted to defeat the misconception and change the minds of those who had tainted experiences. Speaking of his own critically acclaimed and famous restaurant in Charleston, South Carolina, Brock told Edge and Link "when we opened Husk, we were like 'we are going to keep catfish on the menu in some form everyday.'" Edge approved, stating, "When you think about it, it's an educational mission." Overall, the seven-minute segment on farm-raised catfish was itself an educational mission. It showed men with some of the most discerning tastes and award-winning culinary skills promoting the fish as first-rate fare. Brock spread the gospel of farmed catfish to convert the misguided consumer. "That's why we did it. We want people to really fall in love with this because number one, it's crazy delicious. Number two, farming fish the right way is the future of aquaculture," Brock observed. Then their food came. The viewer could see the excitement on the foodies' faces as the group's plates of heaping piles of fried catfish, French fries, and hushpuppies arrived. As they dug into their meal the men briefly quieted, evoking the tale of how the sweet, crispy, fried cornmeal hushpuppy got its

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[3] Ibid.

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name. Their silence was only broken with laughter, grunts, and expressions of awe for their tasty treats.[4]

The aroma of fried decadence and mouthfuls of hot catfish did not keep the men silent for long. Brock's reverence shifted to contemplation and glorification of what desperate people do in desperate times. "If you really think about it this was born in the Depression to make the most of what you had and people fell in love with it," the host stated. Poverty left no other choice but to appreciate and carefully use what one had. If that meant slicing it thin, then that's what one had to do.[5]

Brock's reverent speech, however, misplaces an aspect of the fish's history that is important to why and how it transitioned from something one ate because they had to, to a dish that sells for $29 on Brock's own Husk menu. It fails to acknowledge that during the era he envisioned, consumers ate wild catfish. It wasn't farm-raised, and it wasn't necessarily immune to the stigma he had earlier associated with the domesticated animal.

As the men ate, SFA director Edge shifted the discussion towards something else: work. He cooled Brock's romanticism of catfish and reminded his real time, two-man audience and the viewing public that someone had to make their meal. "This shows you great technique. You sit down here and you realize that this fish, what sustained this place, is the muscle memory of the ladies who knew how to shave this fish," Edge observed. What he found so impressive was the labor and skill of kitchen workers cutting into catfish muscle. The satisfaction of a belly full of fried fish was a result of someone's

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[4] Ibid.

[5] Ibid.

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handy work. "There are 3,500 people eating here. That's a thousand pounds of catfish a *day*," Brock chuckled in disbelief. Preparing one of the South's most iconic dishes was hard work.

While savoring their meals, the gourmands shifted their discussion to the fish itself, particularly its cultural and class attachments. Edge stated, "It's cool too because it's not some temple of gastronomy. It's everybody's food." The SFA director observed that, "There are many people who dismiss the South, and there are people who even more so dismiss the foods of the working class South." He concluded, "Catfish kind of represents that for people." Catfish embodied the downtrodden imagery of the South, it's class connotations, its backwards culture. "Exactly, it does. It's a symbol," Brock nodded in agreement. Edge observed, "It's a symbol for us in a positive way. For other people it's a symbol for some of our South in a negative way. And until you taste it here, all that stuff that's happening out there where people in other states are interpreting Louisiana foods, you don't understand it until you taste it here." With these words, the culinary professionals celebrated poverty culture, the importance of place in the South, and to that end, the catfish.[6]

While they savored farmed-raised catfish, and discussed its working class image, they continued to attach associations related to the wild catfish to the farm-raised delicacy. In other words, they confused the food's history. It was the wild fish, after all, that helped sustain the households of poor southerners before, during, and after the Great Depression. However, the farm-raised fish is a different animal. It is an agroindustrial

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[6] Ibid.

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food crop, and it can be found in geographically far-reaching places and on the plates of the upper crust or those living on the edges of society alike. Although Brock, Link, and Edge knew that consumers across social, class, and regional divisions ate the fish, they continued to cherish the catfish for its underdog status. It was like they connected the popular perception of the wild fish to a farmed product.

After a few minutes, it was time to wrap up their Middendorf's meal and gathering. Although Brock and Edge carried most of the Middendorf's conversation, the segment ended with Link's conclusions. With the camera slowly panning over a plate of fresh thin-fried Middendorf's Special, Link summed it up: "The catfish, I think, is the South embodied in one bite of food."[7]

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But was Link right? Is the catfish the embodiment of the South, the tangible, flavor of four hundred years of history? This dissertation explores how those mouthfuls of catfish came to be, how the fish came to be everywhere, and how its place moved from river bank to picnic tables to white table cloths and candlelight. It explores who produced those bites of food, how those processes effected the environment and people around those sites of production, and lastly how, why, and when those morsels may have embodied the South. But most of all it is how the catfish itself, its physiology, its behavior, its smell, and its flavor, and those attributes that played a role in all those places and spaces.

[7] Ibid.

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Since the 1960s, the farm-raised catfish has become an industrial food juggernaut. I argue that the rise and decline of the farm-raised catfish industry oversaw the transformation of a wild muddy catfish to a bland domesticated crop that hinged on a material, sensorial, and ideological makeover that made the fish both culinarily and culturally palatable for a wide range of Americans. Farmers and scientists altered rural and agricultural landscapes across the American South as they reengineered the wild river catfish into an agro-industrial food crop. Through extensive agricultural scientific research and marketing, the farm-raised catfish industry changed the history of the animal, its image, its flesh and bone, its natural environment, and its place in society all by changing—or in an effort to change—its taste. This process moved the catfish from the ranks of a muddy tasting wild fish mainly associated with African Americans and the poor, to a near tasteless food consumed by all classes and ethnicities.

Farmers and researchers materially changed the catfish. In the 1960s, southern farmers turned catfish culture into a commercial enterprise. The pond-raised fish proved to be a lucrative albeit risky endeavor. By the 1970s, the industry vertically integrated and the Yazoo-Mississippi Delta became the center of production.[8] Historian John Egerton described the farm-raised catfish industry at this point as a "model of quality control and efficiency." Moreover he claimed that it was a "rare anomaly in the food world: an artificially developed and mass-processed packed food that tastes better than its

[8] To read more about the vertical integration of the farm-raised catfish industry, see: John A. Hargreaves, "Channel Catfish Farming in Ponds: Lessons from a Maturing Industry," *Reviews in Fisheries Science* 10, no. 3 & 4 (2002): 499-528.

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'natural' predecessor."[9] Pond production made the catfish readily available all year long, regardless of consumers' time or need for subsistence or recreation and their proximity to a waterway. Prior to the advent of the industry wild catfish consumption depended on localized tastes and impoverished southern families' need to put food on the table.

Farmers and processors ensured that the crop they sold was sensorially marketable. Wild catfish had a reputation for tasting muddy along with many other flavors, and the industry needed to ensure that the farmed cat did not have those same qualities. But due to the enclosed aquatic setting, farmers and scientists at land-grant universities faced innumerable challenges in the pursuit of a particularly tasteless and cheap crop. It was not as easy as digging holes, filling the ponds with water, dumping in baby catfish, and pulling out full-grown whiskered beasts eighteen months later. The domestication of the catfish reveals the environmental contingencies of soil, water, climate, and the biological imperatives of the animal. Farmers, processors, and researchers encountered "off-flavors" generated by the fish's feeding habits, their body's processes, and water quality. Researchers have described off-flavors as, "objectionable flavours [sic] and odours[sic] that affect natural and municipal water supplies, as well as commercial and native fish population."[10] Although farmers can encounter all sorts of off-flavor most people describe typical off-flavors as muddy, earthy, and musty. One aquaculture specialist claimed that poorly-raised fish "just taste like mud; they're

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[9] John Egerton, *Southern Food: At Home, on the Road, in History* (Chapel Hill: University of North Carolina Press, 1993), 134.

[10] J.F. Martin, C.P. McCoy, C.S. Tucker & L.W. Bennett,"2-Methylisoborneol implicated as a cause of off-flavour in channel catfish, Ictalurus punctatus (Rafinesque) from commercial culture ponds in Mississippi," *Aquaculture and Fisheries Management*, vol. 19 (1988): 151.

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nasty."[11] This was the source of the bad reputation cited by Brock and Edge on *Mind of the Chef*. Creating a farm-raised catfish that really did taste better than its wild brothers required a combination of feed, environmental controls, and a little luck.

To ensure that a bland fish hit American plates, farmers and researchers conducted studies on the causes of displeasing flavors using their noses and tongues as tools. Decades of sampling and research helped them decode the causes and scientists eventually developed solutions to strong-tasting catfish. These solutions most often hinged on professional taste testers, but the industry marketed the bland flavor as a prescribed mastery over the pond environment and fish crop itself, of which neither proved to be easily controlled.

To move beyond the notion that traditional consumers were poor southerners who subsisted off the fish, farmers and boosters boasted that science, control, and the allegedly pristine pond environments created a new catfish with a mild flavor. But it took a lot of work to make sure that the fish on the market was bland. Catfish aquaculture was ostensibly neutral science, nonetheless loaded with the processors' and researchers' own subjective ideas of the most marketable catfish flavor that pulled the fish from the muddy depths of poverty and blackness and signaled a measured erasure of its racial and class ties. An ideological reconfiguration accompanied the catfish's makeover from muddy and wild to bland and domesticated. Through extensive quality control measures and marketing, the industry transformed and slowly washed away the negative connotations that the wild fish's class, environmental, and racial associations tethered to poverty,

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[11] Robert Stickney, *Aquaculture in the United States: A Historical Survey* (New York: John Wiley & Sons, 1996), 237.

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subsistence, and recreation. The fish's industrial sensorial makeover had much to do with researchers', farmers', and processors' desires for a specific flavor that embodied a cleaner, blander, and a whiter flavor.[12]

Developing bland meat and an efficient way to grow it presented only half the problem. Notwithstanding the domesticated taste, catfish needed an ideological makeover. Prior to the rise of the industrial fish, its place in culture was clear. Scholars elucidate that both white and black southerners consumed the cat, but that African Americans became "particularly associated with the whiskered fish."[13] For instance, David Cohn famously identified the geographic Mississippi Delta as beginning in the lobby of Memphis's Peabody Hotel and ending in Vicksburg's Catfish Row, an area associated with African Americans. Moreover, George Gershwin's *Porgy and Bess* also pushed Catfish Row and "blacks' link to catfish into the national consciousness."[14] Food scholar Adrian Miller explained how the fish's reputation as a muddy river dweller and its flavor tethered the fish to racial stereotypes. "Life in mud also gives its meat a distinct muddy taste, creating a sharp dividing line between those who preferred the taste and those who detest it. So while this catfish prejudice undoubtedly had an ugly racial tenor,

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[12] Scholars have discussed the issue of "blandness" and its connections to the construction of whiteness. For more, see: Camille Begin, "'Partaking of Choice Poultry Cooked a la Southern Style: Taste and Race in the New Deal Sensory Economy," *Radical History Review* 110 (Spring 2011): 128, 131.

[13] Anthony Stanonis, "Just Like Mammy Used the Make: Foodways in the Jim Crow South," ed. Anthony Stanonis, *Dixie Emporium: Tourism, Foodways, and Consumer Culture in the American South* (Athens: University of Georgia Press, 2008), 220; Adrian Miller, *Soul Food: The Surprising Story of an American Cuisine One Plate at a Time* (Chapel Hill: University of North Carolina Press, 2013), 70-90.

[14] Stanonis, "Just Like Mammy Used the Make: Foodways in the Jim Crow South," 220.

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it was also due in part to the fish's muddy taste, which turned off a lot of white consumers," Miller wrote.[15]

Industry stakeholders engaged in extensive marketing campaigns to promote the catfish as gourmet, global, and anything that consumer wanted. Its bland flavor made it a blank canvas ready for a cook's whims. Although before the advent of the commercial farmed industry, the various species of the wild animal had been associated with the South and Midwest and eaten across the nation, as the crop rose in popularity, the image of the fish became exclusively southern. After the 1980s, it seemed no southern cookbook was without a catfish recipe. The fish was by then completely embedded in notions of southern hospitality and good food. As industry stakeholders changed the materiality of the fish, its flavor, and its image, it seemed like their work achieved success.

What then was at stake by the 1980s when the catfish lost its muddy taste and was moved from a muddy to a clean environment? Consumers connected the new bland taste of the crop to a nostalgia and southern romanticism of the wild muddy catfish. Americans, in and out of the South, reimaged and romanticized Southern poverty and flattened the role of white supremacy in the region's violent past. Some Americans reimagined their pasts as a united people through good food like catfish. After all the catfish, the farm-raised kind, supposedly tasted good. Why wouldn't everyone have always loved eating it? Americans imagined that everyone, regardless of class, place, and race always ate the catfish. As the crop ascended into popularity in the last half of the

[15] Miller, *Soul Food,* 75-76.

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twentieth century, the fish's image transformed into many different images including a gourmet item. "Catfish has made the leap from poor folks' food to haute cuisine," a *New York Times* reporter observed.[16] The catfish has allowed Southerners to pride their "heritage." In the latter half of the twentieth century, the catfish, some southerners — whether referring to the farmed or wild version—claimed it embodied the South.

There was fallout, however, and someone and something had to pay a price. The rise of the crop took a toll on labor and at times the environment. Rural workers, predominately black, poor, and female, worked away in dank, dangerous processing plants. The processing labor of these workers was just as important to the final food product as the culinary labor that Middendorf's cooks served in the *Mind of the Chef* clip. In 1990 at Indianola, Mississippi's Delta Pride Catfish Processing plant, workers went on strike and won despite labor power's impotence in a globalizing economy. Although they made few gains, it empowered workers. A bite of the farm-raised catfish embodied the southern labor relations that were based on a long legacy of white exploitation of black bodies. During this same time, environmentalists began to ask if the catfish industry was sustainable and if growing catfish was worth the costs to the environment. The successful growth of the industry, some found, could perpetuate rural poverty and create a muddy and degraded environment.

Amid these labor and environmental disputes, competition from Vietnamese catfish imports began to trickle into the international seafood market. By the 2000s, the "Catfish Wars" had broken out between Vietnamese importers and American farmers. At

[16] Berkeley Rice, "A Lowly Fish Goes Upscale," *The New York Times*, December 4, 1988.

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the center of this international trade struggle was Americans' empty stomachs. Scientists, processors, and farmers devised quality control measures that washed away the catfish's distinctive qualities. They had done their work so well, though, that most consumers could not tell the difference between American and Vietnamese catfish. American farmers and their political allies fought tooth and nail, using ideas of place, space, and race to create distinction when the sensorial difference between the products was near nil. At stake was the farmed catfish's status as the "South embodied in one bite of food," which industry stakeholders had carefully cultivated over several decades.

This rise, and the fish's recent, telling decline, has hinged on a number of revealing historical forces. The drive by farmers, processors, and scientists to harness agricultural landscapes, the animal, and consumer desires and tastes, reveals an important and misunderstood history of how the environment—everything from ponds dug out of old cotton farms, to understandings of animal biology, to marketing a "clean" scavenger fish—allowed for and mitigated the remarkable rise of farm-raised catfish. As this dissertation demonstrates the interactions between the animal, technology, environment, and the senses connected to the most basic human decision to put something in the mouth, chew, and swallow.

As a history of an animal, food, and agricultural commodity, the farm-raised catfish swims across channels of historiographies. The wild and farm-raised catfish has

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shown up in numerous works about the American South, but few dwell on the topic.[17] Those scholars, journalists, and historians who have engaged farm-raised catfish acknowledge that farmers' production of the crop was a major departure of the way the wild animal lived, and changed the way that it tasted. These scholars acknowledge that these changes made the fish popular. This point is indeed intriguing, but nothing new.[18] The two comprehensive works on the farm-raised catfish industry are Richard Schweid's *The Catfish in the Delta* and Karni Perez's *Fishing for Gold.* Published in 1993, Schweid chronicle's the rise of the industry, but if anything, Schweid, demonstrated that the Mississippi Delta in the 1990s looked very similar to a world before the modern civil rights movement era. Catfish, in Schweid's work, had truly just replaced cotton. Cotton culture became catfish culture. Perez's work investigates the rise of the Alabama's farm-raised catfish industry, and is unlike Schweid's work in that the Alabama fish tale is unlike the Delta story.[19] Perez's account relies heavily on the stories of the catfish

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[17] Historians have mentioned catfish as a part of African American, poor whites', and Native American diets or ecology of an environment. For more, see: Mart Stewart, *What Nature Suffers to Groe: Life, Labor, and Landscape on the Georgia Coast 1680-1920* (Athens: University of Georgia Press, 1996), 77; Wayne Flynt, *Poor But Proud: Alabama's Poor Whites* (Tuscaloosa: University of Alabama Press, 1989); Drew Swanson, *Remaking Wormsloe Plantation: The Environmental History of a Lowcountry Landscape* (Athens: University of Georgia Press, 2012), 18, 28; John Boles, *Black Southerners*, 1619-1869 (Lexington: University of Kentucky Press, 1984), 91, 93; Christopher Morris does discusses the farm-raised catfish industry at length. For more, see: Christopher Morris, *The Big Muddy: An Environmental History of the Mississippi and Its Peoples from Hernando de Soto to Hurricane Katrina* (New York: Oxford University Press, 2012).

[18] The examination of catfish as food: Adrian Miller, *Soul Food: The Surprising Story of an American Cuisine, One Plate at a Time* (Chapel Hill: University of North Carolina Press, 2013); Anthony J. Stanonis, ed., *Dixie Emporium: Tourism, Foodways, and Consumer Culture in the American South* (Athens: University of Georgia Press, 2008); John Egerton, *Southern Food: At Home, On the Road, In History* (Chapel Hill: University of North Carolina Press, 1993).

[19] Richard Schweid*, Catfish and the Delta: Confederate Fish Farming in the Mississippi Delta* (Berkeley, CA: Ten Speed Press, 1992); Karin Perez, *Fishing for Gold: The Story of Alabama's Catfish Industry* (Tuscaloosa: University of Alabama Press, 2006). For more on a popular read on catfish in general, see: Linda Crawford, *The Catfish Book* (Jackson: University Press of Mississippi, 1991);

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farmers and processors, their struggles, and their successes. These are important studies, but this dissertation takes a different approach and readily takes into account the importance of the animal as living being and as a material.

As influential edible materials the most salient interactions between catfish and humans is through the act of eating. With this in mind the bland farm-raised catfish commodity covers the histories of science and technology, animals, agriculture, environment, food, and the senses.[20] In 2009, *Environmental History* published a roundtable on food, a call to arms to take seriously what the idea that Donald Worster had once told a group of William Cronon students: "Environmental history begins in the belly."[21] Before and since, environmental historians had studied food to understand the ways in which humans came to know and interact with the natural world. This dissertation is among these works. Like those who study *terrior*, the flavor of food, which is essentially tasting the flavor of place, the soil, the earth where that particular food was cultivated, this dissertation too takes seriously environment and place.

Christopher Morris, *The Big Muddy: An Environmental History of the Mississippi and Its Peoples from Hernando de Soto to Hurricane Katrina* (New York: Oxford University Press, 2012).

[20] For more on taste and the creation of industrial foods, see: Gabriella Petrick, "The Arbiters of Taste: Producers, Consumers, and the Industrialization of Taste in America, 1900-1960" (Ph.d. diss., University of Delaware, 2006); Warren Belasco and Philip Scranton, eds., *Food Nations: Selling Taste in Consumer Societies* (New York: Routledge, 2002); For more on industrial agricultural particularly pertaining to animals, see: Steven Striffler, *Chicken: The Dangerous Transformation of America's Favorite Food* (New Haven, Yale University Press, 2005); For more on industrialization of animals and plants, see: Susan R. Schrepfer and Philip Scranton, *Industrializing Organisms: Introducing Evolutionary History* (New York: Routledge, 2004). For works that have address the development of animals in the laboratory setting, see: Anders Halverson, *An Entirely Synthetic Fish*; Robert Kohler, *Lords of the Fly: Drosophila Genetics and the Experimental Life (Chicago: University of Chicago Press, 1994)*; Karen Rader, *Making Mice*; William Boyd, "Making Meat: Science, Technology, and American Poultry Production," *Technology and Culture* 42, no. 4 (October 2001): 631-664.

[21] Nicolaas Mink, Robert N. Chester III, Jane Dusselier, and Nancy Shoemaker, "Having Our Cake and Eating it Too: Food's Place in Environmental History, a Forum," *Environmental History* (2009) 14(2): 309-344, 312.

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Animals, as forces developing along with their environments, complicate the environmental history of food and flavor, by adding yet another actor. Environmental and food historians have not readily emphasized or acknowledged the animal—in this case the catfish—and their behaviors, their bodies, and their interactions with the environment as factors that humans created racialized, classed, and environmental judgments upon. These interactions also influenced human cultural and sensorial experiences through cooking and eating. Historians have, however, analyzed and documented the ways animals embody larger historical changes and how humans have used and viewed animals.[22] They acknowledge the power and influence of animals. Whether through domestication, eradication, agriculture, hunting, or fishing historians have examined how humans used animals, viewed them, and even how these interactions have had evolutionary affects. These scholars are inclined to look at political, economic, cultural, and environmental forces as driving historical change, but the senses and individual interactions with animals have significance as well. The sensorial interactions of catching, killing, and eating, add texture and complexity to the ways in which human lived in their natural world. These perspectives, however, are near nonexistent in the

[22] For more on history of animals, see: Virginia DeJohn Anderson, *Creatures of Empire: How Domesticated Animals Transformed Early America* (New York: Oxford University Press, 2006); Anne Greene, *Horses at Work: Harnessing Power in Industrial America* (Cambridge: Harvard University Press, 2008); Sam White "From Globalized Pig Breeds to Capitalist Pigs: A Study in Animal Cultures and Evolutionary History," *Environmental History* 16, no. 1 (2011): 94-120; Edmund Russell, *Evolutionary History: Uniting History and Biology to Understand Life on Earth* (Cambridge: Cambridge University Press, 2011); Susan Nance, *Entertaining Elephants: Animal Agency and the Business of the American Circus* (Baltimore: Johns Hopkins University Press, 2013); Other historians have examined the ways humans view animals, see: Louise E. Robbins, *Elephant Slaves and Pampered Parrots: Exotic Animals in Eighteenth-century Paris* (Baltimore: Johns Hopkins University Press, 2002); Jon T. Coleman, *Vicious: Wolves and Men in America* (New Haven: Yale University Press, 2004); Joan B. Landes, Paula Young Lee, and Paul Youngquist, *Gorgeous Beasts: Animal Bodies in Historical Perspective* (University Park, PA: Pennsylvania State University Press, 2012).

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literature. Rather than just examining the ways human used or thought of nature, it is equally important to recognize the power and contingencies of nature itself through the examination of animal behavior and bodies. But the commodity itself is not the only material that farmers had to contend with, and farmers had to reshape their agricultural landscapes to grow fish.

Unlike other histories on fish and seafood, this history of the farm-raised catfish focuses on man-made ponds created through the excavation of land. But most fish stories, which there are a bounty, do not tread in such waters. Scholars and journalists have written on cod, Alaskan Pollock, trout, salmon, oysters, you name it, there is likely a book about your favorite fish, crustacean, or mollusk. The hunger for this type work is substantial especially since more scholars and more people enthusiastically watch, read, and write on all things food. These stories and histories have raised consumer and academic awareness on the ways fisherman have extracted seafood to the point of collapse. Most scholars of marine environments have provided manifold analyses of these types of fisheries, fisheries that have declined or collapsed. Studies of fisheries tend to focus on fish caught from "natural" locations like oceans and rivers.[23] Fisheries managers

[23] For more on North American fisheries history, see: Anders Halverson, *An Entirely Synthetic Fish: How Rainbow Trout Beguiled America and Overran the World* (New Haven: Yale University Press, 2010); Carmel Finley, *All the Fish in the Sea: Maximum Sustainable Yield and the Failure of Fisheries Management* (Chicago: University of Chicago Press, 2011); Kevin Bailey, *Billion-Dollar Fish: The Untold Story of Alaska Pollock* (Chicago: University of Chicago Press, 2013); Matthew McKenzie, *Clearing the Coastline: The Nineteenth-Century Ecological and Cultural Transformation of Cape Cod* (Hanover: University Press of New England, 2010); Joseph Taylor, *Making Salmon: An Environmental History of the Northwest Fisheries Crisis* (Seattle: University of Washington Press, 2001); Arthur F. McEvoy, *The Fisherman's Problem: Ecology and Law in the California Fisheries, 1850-1980* (New York: Cambridge University Press, 1990); For information on fisheries and fishing communities in southern states, see: Robert Lee Maril, *The Bay Shrimpers of Texas: Rural Fishermen in a Global Economy* (Lawrence: University of Kansas Press, 1995); E. Paul Durrenberger, *Gulf Coast Soundings: People and Policy in the Mississippi Shrimp Industry* (Lawrence: University of Kansas Press, 1996); Christine Keiner, *The Oyster Question: Scientists, Watermen, and Maryland Chesapeake Bay Since 1880* (Athens: University of Georgia Press, 2010).

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tried to increase declining fish populations by artificial propagation and management, but as historians have shown, these led to continual fish depopulation or overfishing. These historians attribute problems like human hubris, ecological misunderstandings, and the political economy to the decline in fish populations and the collapses of fisheries. Yet aquaculture remains a fairly unexplored topic, with much of the work exploring fishponds only as they serve as breeding grounds for stocking natural waterways or fisheries. Where the two seemingly different forms of extraction, natural fisheries to man-made ponds, meet is through the artificial propagation of fish for human consumption. Catfish aquaculture used water as its soil and relied on scientific methods to diminish the risk of mass fish kills and reduce off-flavors in the fish. My focus offers a somewhat different perspective since this project emphasizes the importance of the man-made pond waterscape.

With its focus on fish farming in the South, this dissertation intervenes in the histories of southern agricultural unlike any other. In a world where king cotton slowly abdicated its throne, the farm-raised catfish fits with other histories of southern commodities like chicken and peaches. The stories of poultry and horticulture demonstrate that new commodities, and the systems that they function in, often replaced cotton's oppressive system or worked in tandem with it, while interacting with new groups of labor, particularly migrants Mexico and parts of South America.[24] Like these

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[24] For more in southern agricultural commodities, see: Monica Gisolfi, "From Cotton Farmers to Poultry Growers: The Rise of Industrial Agriculture in Upcountry Georgia, 1914-1960. PhD dissertation, Columbia University 2007; William Thomas Okie, "'Everything is Peaches Down in Georgia': Culture and Agriculture in the American South," PhD dissertation, University of Georgia, 2012; Tore Olsson, "Agrarian Crossings: The American South Mexico, and the Twentieth-Century Remaking of the Rural World," PhD dissertation, University of Georgia, 2013.

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works, my dissertation focuses on the replacement of traditional row crops with a new agricultural, or aquacultural enterprise. Something was radically different too with catfish farming. Land has always held great significance in southern culture and society and decisions made to dig up the land, fill it with water, and grow a meat product represent a sea change in southerners' agricultural outlook. Historian Christopher Morris also observed that catfish farming allowed the Delta to be wet once again.[25] What did remain was the culture that relied on white elite landownership and black labor subjugation. Catfish aquaculture did not require many people in the fields monitoring the fish, or to harvest them, and many displaced unemployed southerners ended up on the factory line.

The labor history of the farm-raised catfish industry tends to focus on workers' labor activism as part of a long civil rights movement.[26] There is no doubt that these scholars are correct in the analysis of catfish processing workers, but unlike most works that examine the 1990 Delta Pride Strike, this dissertation takes into consideration the nature of the farm-raised catfish industry, the multifarious forces that contributed to the declining power of labor, as well as the role of workers' voices in the strike. Taken

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[25] Christopher Morris, *The Big Muddy: An Environmental History of the Mississippi and Its Peoples from Hernando de Soto to Hurricane Katrina* (New York: Oxford University Press, 2012).

[26] For other works on the 1990 Delta Pride Strike, see: Candice Ellis, "Pickets in the Land of Catfish": The African American Labor Rights Struggle in the Catfish Industry of the Mississippi Delta, 1965-1990," (MA thesis, University of Florida, 2012); Laurie Beth Green, "A Struggle of the Mind: Black Working-Class Women's Organization in Memphis and the Mississippi Delta, 1960s to 1990s," in *Frontline Feminisms: Women, War, and Resistance*, ed. Marguerite Waller and Jennifer Rycenga (New York: Routledge, 2001), 399-418; Richard Schweid*, Catfish and the Delta: Confederate Fish Farming in the Mississippi Delta* (Berkeley, CA: Ten Speed Press, 1992); James Cobb, *The Most Southern Place on Earth: The Mississippi Delta and the Roots of Regional Identity* (New York: Oxford University Press, 1994), 331-332; Clyde A. Woods, *Development Arrested: The Blues and Plantation Power in the Mississippi Delta* (New York: Verso, 1998); Kristal Brent Zook, "Dreaming in the Delta: A Memoir Essay," *Meridians: Feminism, Race, Transnationalism* vol. 3, no.2 (2003): 278-288; Philip Dine, *State of the Unions: How Labor Can Strengthen the Middle Class, Improve Our Economy, and Regain Political Influence* (New York: McGraw-Hill, 2007);

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together, the Delta Pride Strike demonstrates the importance of thinking about the entwined narratives of labor and civil rights, while taking into serious consideration the nature of food production in the United States.

Lastly unlike most histories that examine Sunbelt society through as re-alignment, segregation, and New Right ascendancy, this dissertation examines Sunbelt culture through foodways.[27] Unlike other Sunbelt foodway histories, this history of the farm-raised catfish shows how the South was repackaged and sold, and how the animal exemplified the South's new image of an innocuous, friendly, hospitable place full of good people and good food. As a color-blind society, the farmed catfish came to represent the South as a beloved underdog. The farm-raised catfish is just one topic at the nexus of this cultural transformation. The transition from muddy and wild catfish to a bland and domesticated catfish represents the metaphorical transformation of the Jim Crow segregated South to the color-blind Sunbelt society.

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Let's go back to that famed Louisiana fish house, where the *Mind of the Chef* host and his guests failed to mention something important about the Middendorf's Special.

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[27]For more on Sunbelt foodways, see: Laresh Jayasanker, "Tortilla Politics: Mexican Food, Globalization, and the Sunbelt," In *Sunbelt Rising: The Politics of Place, Space, and Region*, edited by Nickerson Michelle and Darren Dochuk, 316-34 (Philadelphia: University of Pennasylvnia Press, 2011); Darren Grem, "The Marketplace Missions of S. Truett Cathy, Chick-fil-A, and the Sunbelt South," In *Sunbelt Rising: The Politics of Place, Space, and Region*, edited by Nickerson Michelle and Darren Dochuk, 294-315 (Philadelphia: University of Pennasylvnia Press, 2011); political histories related to Sunbelt: Joseph Crespino, *In Search of Another Country: Mississippi and the Conservative Counterrevolution* (Princeton: Princeton University Press, 2009); Matthew Lassiter, *The Silent Majority: Suburban Politics in the Sunbelt South* (Princeton: Princeton University Press, 2007); Kevin Kruse, *White Flight: Atlanta and the Making of Modern Conservatism* (Princeton: Princeton University Press, 2007); Darren Dochuk, *From Bible Belt to Sunbelt: Plain-Folk Religion, Grassroots Politics, and the Rise of Evangelical Conservatisms* (New York: W.W. Norton, 2012); Bethany Moreton, *To Serve God and Wal-Mart: The Making of Christian Free Enterprise* (Cambridge: Harvard University Press, 2010)

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During the early years of the restaurant, thin-fried catfish, which is now one of the restaurant's most popular and well-known items, literally was not on the menu. The restaurant did sell the dish, but they only called it the "the Middendorf Special."[28] The owners did not want consumers to know that they were eating catfish. This may explain why the fish has always been sliced so thinly. Until the advent of the farm-raised catfish industry, Middendorf's used catfish caught from the lakes that the restaurant straddles. This preparation may have been a way to off set even cover-up the various flavors wild catfish picked up from the lakes, and therefore further disguise the quality of the dish. Regardless of preparation, the fact that consumers and the restaurant did not admit that the dish was catfish is telling. "Catfish is now popular and trendy," Sue, one of Middendorf's recent family owners, told Jane and Michael Stern in 2009. Although Sue did not indicate the exact moment when Middendorf's decided to tell their consumers that they were eating catfish she observed, "You didn't want to talk about it. Trout was the premium catch. Catfish was a low, lowly food. She [Josie Middendorf] didn't even call it catfish on the menu. It was 'the Middendorf's Special.'"[29]

The relatively recent timing of this admission that the "special" was actually catfish is meaningful. It was the cultural cachet that industrial agriculture and extensive and creative marketing cast for the protein that finally made it okay to advertise what it was that patrons were actually eating. This transformation was not easy and the pages ahead recount a complex story filled with irony and contradiction.

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[28] Jane Stern and Michael Stern, *500 Things to Eat Before It's Too Late: and the Very Best Places to Eat Them* (New York: Houghton Mifflin Harcourt, 1986) 143-144.

[29] Ibid, 143-144.

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CHAPTER II

GROWING CATFISH IN THE LAND OF COTTON: FISH FARMING'S EARLY YEARS, 1880-1975

The Yazoo-Mississippi Delta is known for having some of the most fertile soils in North America, maybe even the world. Cotton dominated the agricultural landscape until the 1930s, when planters began in earnest a slow transition away from the crop.[1] The move away from cotton to other traditional row crops turned, by the 1960s, into something novel. Planters introduced water back into the Yazoo-Mississippi Delta.[2] Farmers began cultivating water and growing catfish in ponds on their marginal farmlands. In 1965, two farmers, Billy McKinney and Raymond Brown decided to try their hand at catfish aquaculture and built the Delta's first man-made fishponds. They stocked their 40-acre pond with catfish fingerlings, basically baby catfish.[3] By January 1966, with assistance from the U.S. Fish and Wildlife Service Fish Farming Experiment

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[11] For more information, see: Gilbert Fite, *Cotton Fields No More: Southern Agriculture 1865-1980* (Lexington: University of Kentucky Press, 1984).

[2] Christopher Morris, *The Big Muddy: An Environmental History of the Mississippi and Its Peoples from Hernando de Soto to Hurricane Katrina* (New York: Oxford University Press, 2012), 181-203.

[3] The specific species is unknown, but it is likely that the fingerlings were channel catfish or blue catfish. Also I will refer to farm-raised channel catfish as farm-raised channel catfish, farm-raised catfish, farmed catfish, pond-raised catfish, catfish, and cats.

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Station in Stuttgart, Arkansas, the two men harvested their first crop of farmed cats.[4] The success of McKinney and Brown stimulated interest in other Delta farmers to grow the whiskered fish.

For farmers like these men, the bounty that the Delta's landscape offered was inexhaustible. Its flat, buckshot clay soils held water well, and the rivers and streams that gave the region its unique form and environmental character meant copious amounts of water that most Mississippians thought inexhaustible. One aquaculturist went so far as to claim that "The Mississippi River Delta is the only place for catfish farming. It's super good."[5]

While some who engaged in catfish farming followed McKinney and Brown and diverted unused or unproductive farmlands to catfish ponds, others eventually chose to turn their traditional row crops fields into ponds. By the late 1960s, more Mississippi Delta farmers wanted to get into catfish, but they needed expert assistance. They looked to the same source for research and advice that for decades tried to help Delta planters control nature, landscape, and the people working for them in the region: the land-grant universities research complex.[6]

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[4] Thomas L. Wellborn, "The Catfish Story: Farmers, State Services Create New Industry," *Yearbook of Agriculture 1983*, 300-301.

[5] Jim Estrin, "Catfish growing a Booming industry," *The Clarion Ledger*, August 16, 1981.

[6] To read more about the agricultural history of the Mississippi Delta, see: James Cobb, *The Most Southern Place on Earth: The Mississippi Delta and the Roots of Regional Identity* (New York: Oxford University Press, 1994). For more on the agricultural and environmental history of the region, see: Mikku Saikku, *This Delta This Land: An Environmental History of Yazoo-Mississippi Floodplain* (Athens: University of Georgia Press, 2005); James Giesen, *Boll Weevil Blues*: Cotton, Myth, and Power in the American South (Chicago: University of Chicago Press, 2011).

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Some Delta planters jumped in headfirst. Yet the appeal of catfish for some farmers was not the same for Mississippi's land-grant. Its administrative directors needed to be convinced that they had to sink energy and resources into catfish farming research. A 2002 oral history with a former director of Mississippi Agricultural and Forestry Experiment Station (MAFES) Dr. Rodney Foil reveals the birth of channel catfish aquaculture research in the state.

In the late 1960s, a small private plane soared through Mississippi's blue skies. In cramped quarters, two men sat and discussed the future of agriculture in the state best known for cotton production. The pilot, Tom Slough, was a math professor turned catfish farmer and the other man, Jim Anderson, was the director of the MAFES. While in autopilot, Slough suddenly reached over Anderson's body, placed his hand on the exit door latch next to the director's seat and looked Anderson straight into his eyes. With intimidating body language and a strong voice, Slough said, "Doctor, let's talk about some catfish research." The MAFES director understood the threatening message; Slough would push him out of the flying plane if he disagreed.[7] Slough never pushed Anderson out of the moving plane, Foil remembered with a chuckle, "Sure enough, that was when some of the [faculty research] positions were re-described so that people started working on catfish."[8] The Slough Anderson affair was one of Foil's most cherished stories, and no wonder why. With the risk-taking and moxie of farmers like Slough coupled with land-grant research, by the 1970s, Mississippi was the king of farm-raised channel catfish

[7] Dr. Rodney Foil interviewed by Mike Ballard, Starkville, Mississippi, 2002, CHARM Digital Collection, 15.

[8] Ibid, 15.

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production. In 1974, Mississippi enclosed some 110 catfish farms and farmers devoted 8,439 acres of water to the crop.[9] Ever since, specifically the Yazoo-Mississippi Delta region has been the heart of farmed catfish production in the United States.

Apocryphal or not, this is generally how the story of catfish farming in South goes: some planters decided to grow catfish, they enlisted the help of land-grant colleges and government agricultural agencies, and together they produced one of the most successful and important American aquacultural enterprises in the last fifty years. Foil's origins story of the genesis of catfish farming research in Mississippi is an important one. It offers insight on the power and influence of southern farmers on land-grant research agendas, and to a certain extent it reveals a culture of coercion. But the story obscures more than it reveals, and it ignores the roots of catfish farming, which date back nearly one hundred years outside of the American South.

Let's step back. This chapter explores the early years of catfish farming in the United States beginning in the 1880s and ending during the early commercial enterprise years in the 1970s. This chapter explores the reasons and the people who lit the first embers of interest in catfish farming and the ways they did it. Beginning in the 1880s, the slow uneven transformation of the wild muddy catfish into a tasteless domesticated crop grew from environmental crises that hit the United States a few decades earlier. In the 1850s, overfishing and environmental degradation resulting from industrial development blighted waterways across the United States. Fish stocks plummeted. American waters could neither support the growing hunger for fish from a growing populace nor support

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[9] *1974 Census of Agriculture, Livestock, Poultry, Livestock and Poultry Products, Fish*. U.S. Department of Commerce. Washington, D.C.: Government Printing Office, June 1978.

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the recreational desires of sportsman. For some scientists the solution to these problems was the artificial propagation of fish.[10] Although most researchers focused on cold-water species like salmon, by the 1880s researchers began dumping various species of the cat along with other warm-water fish into farm ponds. For the very few people who grew catfish leading up to the 1960s, farm ponds added agricultural diversity, conserved soil and water, provided recreation, and increased farm incomes.[11] The hunger and health of the human body linked to environmental conservation and health of the nation. But farming catfish was not right for every farmer.

During this near one hundred year period the nature of catfish farming changed. Whether growing catfish in natural or man-made ponds, the venture transformed from an extensive enterprise with conservationist and commercial aims into an intensive agricultural venture with exclusively capitalist ambitions. As the process of intensification occurred, farmers materially transformed the catfish into a new product,

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[10] For more on the collapse of fisheries, see: Arthur McEvoy, *The Fisherman's Problem: Ecology and Law in California Fisheries 1850-1980* (New York: Cambridge University Press, 1990); Joseph E. Taylor III, *Making Salmon: An Environmental History of the Northwest Fisheries Crisis* (Seattle: University of Washington Press, 2001); Carmel Finley, *All the Fish in the Sea: Maximum Sustainable Yield and the Failure of Fisheries Management* (Chicago: University of Chicago Press, 2011).

[11] Quite a few environmental historians have examined the early years of fish farming and fisheries work to show that environmental degradation was at the root of its inception in the United States. Scholars like Donald Pisani and John Reiger cite the late nineteenth century Progressives' drives towards conservation of natural resources, as the progenitor of the fish cultivation in the United States. Reiger argues that sportsmen who wanted to ensure that they had access to good game pushed the first embers of conservation in the United States. In recent, historian Srother Thompson traced the roots of fish farming in the North American context, to it's both agricultural roots and environmental roots demonstrating that fish farming stemmed from the decline of fish bounties as early as the colonial period. Thompson traces fish cultivation to farmers who engaged in mixed husbandry in the eighteenth century colonial America when the depleting fish stocks in the Northeast prompted farmers to grow their own fish in ponds on their farmlands. In the late eighteenth century, Europeans like the British and the French also engaged in fish culture. Scholar Darin Kinsey argued that the roots of modern aquaculture grew from French aquacultural science of the mid-nineteenth century. To read more on early fish farming in the United States, see: To read more, see: Srother E. Roberts, "'Esteeme a Little Fish': Fish, Fishponds, and Farming in Eighteenth-Century New England and the Mid-Atlantic," *Agricultural History* 82, no. 2 (Spring 2008):143-163.

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from a wild animal to an aquacultural crop. In the late 1960s and early 1970s, catfish farmers began to engage in intensive commercially focused operations and vertically integrated. Instead of questions of food insecurity, farmers began to ask themselves how they could expand their markets and get more people to eat farmed catfish. By the end of this period, much of the catfish on the market no longer lived, died, or tasted as the wild animal had. Those were the farmed cat's most marketable qualities.

Fish farming is nothing new, nor an innovation of Western thought.[12] Humans have engaged in fish cultivation for thousands of years. Scholars estimate that the Chinese began growing fish in ponds for food purposes nearly four thousand years ago.[13] In the late nineteenth century United States, early development of aquaculture began as more fisherman and scientists realized that humans depleted and destroyed their aquatic environments and the creatures that dwelled in these habitats. With the collapse of fisheries caused by overfishing, the interference of dams, and the ill effects of pollution on streams, rivers, and oceans, the decline of fishes for food and recreation became quite evident. Early advocates and experimenters of fish culture, which historian Mark Barrow describes as "anglers, naturalists, and entrepreneurs," began to experiment with fish farming in the 1850s. In 1857, George Perkins Marsh wrote a "Report, on the Artificial Propagation of Fish," and pointed to overfishing and ecological degradation as the reasons for the decline of fish populations. Marsh supported fish farming as a way to offset the decline of fisheries. But more, that those with an enterprising drive could make

[12] For a general history of fish culture in the United States, see: Robert Stickney, *Aquaculture in the United States: A Historical Survey* (New York: John Wiley & Sons, Inc., 1996).

[13] Stickney, *Aquaculture in the United States*, vi.

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money and "our fresh water may this be made to produce a vast amount of excellent food."[14] In 1870, a group of fish culture enthusiasts formed the American Fish Culturists' Association. Later known as the American Fisheries Society, this organization petitioned the federal government to stock public waters with fish. One year later, the United States government established the United States Commission on Fish and Fisheries also known as the United States Fish Commission (USFC), which oversaw the stocking of public waters with fish hatched at federal and state hatcheries across the nation. The commission's mission was to raise fish and release them into public waters not private ponds.[15]

In the late nineteenth century, some fish experts praised catfish species for their nature—their hardiness, their abundance, their fecundity—all of which had intrinsic value. In 1882, Charles Hiester a fish expert in Pennsylvania noted that catfish populations had increased since the 1870s, and it was "fifty times more abundant than any other." He looked directly to both the fish's physiology and interactions with other animals. Writing, "Almost every egg hatches, and the young ones are not relished as food by other fishes on account of their stingers; bass and pike are about the only fish that can eat them." He later noted that the parents watch their young, and that most if all reached maturity. "Never saw a dead one," Hiester claimed.[16] For researchers, the catfish's

[14] Mark V. Barrow, *Nature's Ghosts: Confronting Extinction from the Age of Jefferson to the Age of Ecology* (Chicago: University of Chicago Press, 2009), 92.

[15] Michael Weber, *From Abundance to Scarcity: A History of U.S. Marine Fisheries Policy* (Washington, D.C.: Island Press, 2002), 40-42.

[16] Charles Hiester, "Answers to Questions Relative to Catfish," *Bulletin of the United States Fish Commission* 2, no. 76 (March 21, 1882): 78.

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physical attributes and behavior qualified the fish as an excellent source of dependable food.

In the late nineteenth and early twentieth century some experimental farmers supported artificial propagation of the catfish due to docile behavior. In the 1880s, J.F. Jones experimented with the channel catfish and successfully raised them. Jones's placed his success on the fish itself. "The species is easily tame or domesticated," he stated. In comparing the animal to farm stock Jones wrote, "They can be trained like pigs; increase and grow fast when well supplied with food; subsist on vegetation…" Jones found that the fish could also lived off of "any kind of fruit, such as peaches, apples, persimmons, watermelons and they like corn, wheat, and sorghum seed."[17] Despite it watery environments, the fish reminded some farmers of land-based animals. The fish could be domesticated.

Most fish experts characterized catfish as reproductively prolific, and able to withstand pollution and overfishing. Due to the catfish's reputation some thought that the animal would outlive other fish that died from pollution or declined from overfishing. The catfish was tough, which left some to assume that future generations could depend on it when there were few other choices. In 1891, Missouri's Fish Commissioner J.L. Smith predicted, "We do not appreciate our several varieties of catfish; but coming generations will do so. This fish is valuable for food." Col. Marshall McDonald of the USFC believed that the cat could out survive others too. "This care by the parent, and the formidable spines, or stickers with which the catfish is armed, account for his ability to

[17] J.F. Jones "The Speckled Catfish," *Bulletin of the United States Fish Commission* 4, no. 21(August 13, 1884): 321.

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hold his own in our depleted waters. It is a veritable exemplification of the 'survival of the fittest,'" McDonald claimed.[18] The fish experts implied that when all other fish were dead and gone, the catfish would reign as the food fish to eat. Because the fish could survive while others could not, the next generations of Americans could turn to the catfish for both recreation and food.

The catfish's metabolic processes, its reproduction, its habits and abilities to live in slow and fast rushing waters, garnered fish culturists' admiration. In 1893 Seth Green the "Father of Fish Culture," praised the fecundity, adaptability, and behavior of the bullhead catfish. "There is no fish that excels the bullhead for breeding," Green observed. Their behavior proved imperative to this accomplishment. After outlining the bullhead cat's breeding habit of finding a hole, spawning, and keeping an eye on their eggs, Green observed, "They take care of them for three weeks, then wean them, the same as a hen does her chickens." If Green's assessment that the catfish's maternal behavior lacked enough reason for his praise, he stated, "There is no fish as suitable for so many different waters in the country as bullheads."[19] Others echoed Green's observations. Years later in 1910, William Kendall argued the same point for all catfishes. "The catfishes are a hardy race, very prolific, and in habits and structure comparatively safe from enemies. For these reasons wherever they occur they are usually very abundant," Kendall claimed.[20] The

[18] James Cox, *Missouri at the World's Fair. An Official Catalogue of the Resources of the State. Issued by the World's Fair Commission of Missouri,* edited by James Cox (St. Louis, 1893), 67.

[19] William C. Harris, "Fish and Fishing in America," *The American Angler*, April 1893, 248.

[20] William Kendall, *American Catfishes: Habits, Culture, and Commercial Importance*, Bureau of Fisheries Document No. 733 (Washington: Government Printing Office, 1910), 7.

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fish's ability to withstand pollution, its ability to procreate and rear, and its abilities to adapt to a variety of environs made the fish a good choice for artificial propagation.

By the turn of the twentieth century, more and more fish commissioners became interested in utilizing different waterscapes: farm waters. "With our public waters rapidly becoming depleted through excessive fishing, in spite of the good work being done by the hatcheries, where are we to look for fish to fill the vary rapid growing demand, if not through water farming?" J.J. Stranahan, who worked for the USFC wrote in his 1902 article "Fish Culture on the Farm." He argued that with an increasing American population and a rapidly developing infrastructure through railroads, unused lands could be utilized to increase American food supply. Using "unproductive land with water" could produce "many fins…where none grew before," Stranahan claimed.[21] The USFC saw agricultural lands as potentially growing fish bounties.

Fish experts' discussions of catfish in the early twentieth century revealed the contested nature of the fish as food. Some highlighted the various catfish species' popularity, and in contradictory fashion, often noted the various prejudices against catfishes. "Cat-fish are preeminently a poor man's food," fish culturist William Kendall observed in 1903. Despite this image Kendall assured that there was a big market and anyone could profit, especially because the fish was supposedly so prolific. Kendall wrote, "They not only afford him a cheap food-fish, but become so abundant in time and there is so much demand from them that they afford a paying industry, notwithstanding their cheapness." He concluded, "They may be raised in artificial ponds or in ponds

[21] Stickney, *Aquaculture in the United States,*112.

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unsuited to other fish."[22] Meaning that the fish's abilities to grow in spaces where other fish could not grow as well as its fertility made it an even more worthy for fish culturists to grow. Demand for catfish was connected to its value as abundant inexpensive meat. For some, however, cheapness may have not been enough of a marketable quality to buy the fish.

Along with the fish's image as poor man's food, the fish had a reputation for its flavor. Before people grew catfish in ponds, consumers long used culinary methods to offset the muddy flavor in catfish and other fish. In 1867, for example, one cookbook discussed such methods. "Another thing to be kept in mind is, that many different kinds of fish require to be opened in a different manner," the author wrote in introducing their method. The author observed, "Fish which are taken from ponds, or stagnate waters, often have a muddy taste, which exists on in the skin, and in the process of cooking this flavor is communicated to the body." Due to these flavors, the solution was to properly dismember the fish. The fish had to be skinned, and then soaked in salted water for half and hour, finishing with a cold water rinse.[23] Culinary methods to deal with the fish's muddy flavors reveals that home cooks who chose to eat the fish still prepared it in a way to take away the flavor of which they may have disapproved of.

Those who wanted to grow the fish knew that water and environment played a significant role in the catfish's flavor. "A muddy pond will give the fish a muddy flavor,"

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[22] William Kendall, "Habits of Some of the Commercial Cat-Fishes," *Bulletin of the United States Fish Commission* 22 (1903): 404.

[23] Thomas Farrington De Voe, *The Market Assistant, Containing a Brief Description of Every Article of Human Food Sold in the Public Markets of Cities of New York, Boston, Philadelphia, and Brooklyn* (New York: Hurd and Houghton, 1867), 318.

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Charles Townsend a fish culturist in New York warned in 1906.[24] He was a big supporter of catfish as a source of food and recreation and the animal's behavior was important. He claimed that those seeking easy recreation could hook the catfish effortlessly. Children could even catch the animal. The catfish could grow with other fish too. Despite these positive attributes, a stagnant pond could diminish its gastronomic qualities. Townsend had a solution. "When taken from a muddy pond they [the common catfish] should be put in a tank of running water for a few days, when their flavor will be all right," he recommended. To persuade those that he felt were misinformed about the catfish's value, he praised the animal's culinary qualities. "They are as near boneless as any fish to be found, and if you have been falsely educated as to their edible qualities, just try them," urged Townsend.[25] Townsend included a piece of "negro philosophy" which stated, "A catfish on the line is worth two whales in the water." Townsend's inclusion of the proverb reinforced the notion that the catfish was associated with African Americans.[26]

Fisheries experts implied that most Americans, presumably white and middle class, negatively judged the catfish. Jordan David Starr the famed ichthyologist, eugenicist, and first president of Stanford University, was one such expert. Jordan along with Barton Evermann co-authored *American Food and Game Fishes*, published in 1908. They argued that many catfish species were ideal food fish though often cited its

[24] C.H. Townsend, "The Cultivation of Fishes in Natural and Artificial Ponds," *New York Zoological Society Annual Report* 11(1906): 99.

[25] Ibid.,110.

[26] Ibid., 110.

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controversial image.[27] Like other scientists, Jordan and Evermann valued the species' supposed hardiness and ability to adapt to diverse locales. Moreover, the experts praised catfishes simply because they thought the fish tasted good. Unlike what they must have thought to be the average American—white folks—they liked catfish.

Jordan and Evermann expressed admiration for all catfish species, but the blue catfish stood out. They declared it the "most important of all our catfish," and observed, "In spite of popular prejudice to the contrary, the flesh of this cat-fish is of excellent quality, firm and flaky, of very delicious flavor, nutritious in a high degree…" Americans mistook the fish for something less than worthy. Despite these prejudices against the blue catfish, the experts observed that Louisiana fisherman caught the fish and "shipped to retailers in many States of the Union," and that the product always sold at a "fair price."[28] Despite the fish's controversial image the ichthyologists claimed, "Of all the catfishes it is the one most deserving of cultivation and popular favour…"[29] It seemed that the fish's image belied its popularity.

Jordan and Evermann had international aspirations for the blue cat, but knew it could garner controversy. They argued that the blue catfish "could with profit be introduced into other countries," but breaking popular perceptions would not be easy. At the turn of the twentieth century, some fish culturists wanted to introduce American catfishes into English waters. The English media protested to such aspirations. "Oh, do

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[27] David Starr Jordan and Barton Warren Evermann, *American Food and Game Fishes: A Popular Account of All the Species Found in America North of the Equator, with Keys for Ready Identification, Life Histories and Methods of Captur*e (New York: Doubleday, Page & Company, 1908), 15-35.

[28] Ibid., 20.

[29] Ibid., 19.

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not bring the Catfish here!" one poem began, and ended by conjuring the images of the U.S.'s most important watery environments. "Oh, leave him in his western flood/ Where the Mississippi churns the mud;/ Don't bring him here at all!" the poem concluded.[30] The images of some American animals and the environments in which they dwelled had traveled overseas, and the reputation of the catfish went along with them. The poem too demonstrates the connection between—at least in the case of some of the British in the early twentieth century—value judgments on animals and the interactions with their environments. Jordan and Evermann briefly entertained the introduction of the blue cat into British waters, though understood that such action could be highly disputed.

One of their other ideal fishes was the yellow cat, and its reputation and popularity was in question oo. In the Gulf States and Atchafalaya River, the fish culturists observed that the yellow cat's "flesh is of fine texture and of excellent flavor" and was supposedly important food in the region. They too noted in contradictory fashion that, "There is really no good reason for the prejudice against it which obtains in many localities."[31] How could a pervasive prejudice of the fish swim alongside its popularity? They continued, "The fact that it is a large, rather repulsive-looking fish, not too cleanly in its habits, doubtless has something to do with this."[32] Like the British, the animal's behavior and interaction with its environments caused some Americans to detest the fish.

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[30] Ibid., 20,

[31] Ibid., 32.

[32] Ibid., 32.

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Jordan and Evermann did not explicate the connections between race and the fish, but they must have known. A poem Jordan and Evermann's included at the end of their descriptions of the yellow catfish may have cleared the debatable reputation. The experts included "The Darkey and the Catfish." The piece of poetry read, "Don't talk to me o' bacon fat, /or taters, coon or 'possum;/ Fo' when I'se hooked a yaller cat,/ I'se got a meal to boss 'em." This poem clearly connected the animal to African Americans. The fish experts revealed the contested nature of the fish with the addition of the poem. Along with the British poem, they exposed the environmental and racialized elements of various cat species acceptability.

Despite the negative imagery of the fishes, fish culturists valued the fish's body, strength, and flavor. The fruitful maternal catfish protected its young, which provided a greater chance of higher population rates, and adapted to diverse waters. Ichthyologists saw the catfish as seemingly infinite source of food that they traced back to the fish's physical attributes. Ichthyologists praised the fish as a potential source of food due to the fish's physical attributes like stingers and then the lack of predators. Although some agreed with many Americans that the catfish was déclassé, they looked beyond its image and viewed the fish's physiological ability to be a good potential food source.

To unlock the catfish's potential, fish experts argued that diet was imperative. In 1911, scientist and the State of Kansas's Fish and Game Warden, Lewis Lindsey Dyche found that the fish's diet really mattered for gastronomic quality. This discovery was newsworthy. Dyche stumbled upon this gastronomic innovation when he experimented with feeds for captive catfish. Hutchinson, Kansas's local newspaper wrote about this novel affair. Making the front-page news, the short article began, "Kansas has been

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known for a long time as the 'corn-fed' state and she is living up to her reputation. The latest thing in the corn-fed line is the corn-fed catfish…" Dyche observed that catfish liked corn, and quickly found that this dietary predilection changed the flavor composition of the animal's flesh. "I did not know it made such a difference until this summer. You would be surprised at the difference between the corn-fed fish and the fish that live on moss and insects," Dyche told the *Hutchinson News.* He compared the two animals diets and meat flavors. "The flesh of the corn-fed fish is whiter, finer grained, smoother and sweeter than any other catfish meat I ever ate," said Dyche. "There is as much difference between the corn-fed pond catfish and the ordinary catfish as there is between a sirloin steak and a piece of bull's neck," he said, and repeated, "We have caught some catfish in the river and a corn-fed catfish beats a river catfish as much as a sirloin steak beats a round steak." He couldn't be more emphatic. The comparison to cuts of beef gave readers a relatable culinary experience. Everyone may have known what various beef cuts tasted like, but corn-fed catfish, they most likely never ate that. Dyche's experiments suggest that like others he too found a correlation between the fish's quality and its behavior and environments.

Dyche continued his pond catfish experiments until his death in 1915. The Kansan conducted most of his experiments at Pratt Fish Hatchery in Pratt, Kansas. The state had established the station in 1905 and placed it under Dyche's direction, and it soon became the most innovative and largest hatchery in the U.S. at the time.[33] Despite the Pratt hatchery's reputation, by 1913, some displeased Kansans accused Dyche of

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[33] *Pratt Fish Hatchery: Serving Kansas Anglers for More Than 100 Years* (Pratt: Pratt Fish Hatchery, nd), 2.

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mishandling money and being too idealistic. That year, Dyche became embroiled in a controversy over governmental waste.

To ascertain Dyche's reputation among his colleagues, Kansas Governor W.R. Stubbs reached out to the fish culture community. In the fall of 1913, this small community stepped up and resoundingly defended Dyche. Henry B. Ward the president of the American Fisheries Society was one such Dyche advocate. On October 2, 1913, Ward claimed that Dyche introduce the fish culture to the "prairie state without lakes and with few rivers, while even those present are so silt laden and turbulent, that they afford scant opportunities for fish development."[34] This achievement alone garnered much attention among fish culturists. Ward asserted that Dyche was worthy of praise because "his contributions to fish propagation were the most original and most valuable…" Ward continued, "There is no question that he given possibilities of cultivating and having fish food to a large per cent [sic] of our population, which before his work, believe that such food was beyond its reach." Ward thus praised Dyche for cultivating food in spaces that others did not consider. All respondents applauded Dyche's work, but his personality also garnered attention. " Prof. Dyche is a live wire," W.T. Thompson a scientist for the Bureau of Fisheries wrote to Stubbs in 1913. "Energy and enthusiasm, of which he is 'chuck full', coupled with horse sense, of which I am convince the Professor has his ample share, will accomplish great things along any lines," Thompson observed. "I would deem it a calamity should the oversight of the Kansas fish cultural work be taken

[34] Henry B. Ward to W.R. Stubbs, October 2, 1913, Personal Papers of Lewis Lindsey Dyche, Folder 30, Box 2,. Kenneth Spencer Research Library, University of Kansas, Lawrence, Kansas. Hereafter this collection will be referred to as Dyche Collection.

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away from the present Warden and become a political plum," Thompson concluded. Clearly Dyche's bright innovative mind amassed an approving community.

Many support letters highlighted how Dyche's work had social, agricultural, and economic benefits. Charles Townsend also praised the game warden. Townsend described "a great object lesson for farmers and breeding place from which native fishes best adapted to that region may be sent to farmers for stocking private waters," Townsend wrote to Stubbs. "I believe that we should teach our art to the people…Fishes can be raised almost as easily as fowls. That is a point which has been demonstrated often enough for us to quit talking about it."[35] Dyche's work was important, and through his leadership Pratt became an exemplar of the study of fish culture in the nation. "I should like to visit Pratt for the sole purpose of studying this plant, and am glad that Kansas has taken the lead in pond culture for the benefit of farming population," Townsend wrote to Stubbs.[36] At Pratt, Dyche produced important studies on various fishes and aquaculture.

Soon after the political imbroglio in 1914, Dyche published his seminal work *Ponds, Pond Fish, and Pond Culture*. The book instructed landholders, farmers, and the curious how to build ponds, what fishes to choose, and how to grow their aquatic crops. The book, too, was a manifesto. The game warden saw fishponds as serving socioeconomic, environmental, and agricultural good because well-maintained ponds produced food, happiness, and recreation. "Most people are fond of fresh fish, and they enjoy the pleasure and the exciting sport of going fishing and of fishing," Dyche argued

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[35] Charles H. Townsend to W.R. Stubbs, October 6, 1913, Folder 30, Box 2, Dyche Collection.

[36] Ibid.

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for the pond's place on a farm. He too observed that meat was expensive, took lots of energy and land to produce, and fishponds created economy. Dyche estimated that fish producers could make in total of $75,000 dollars a week, if 300,000 Kansas families ate "a mess of fish" once per week at twenty-five cents. He estimated farmers in total could make $3.9 million dollars a year, while producing a cheap alternative for Kansans.[37] Fishponds held social and economic potential.

Dyche saw promise in artificial and natural waterscapes as sites for practicing environmental stewardship too. Dyche asserted that "as the present time our rivers, streams, and creeks are very much abused," and used mostly to deposit sewage. The game warden saw this as a waste, and sewage needed to be diverted to farmlands. "We are skimming the cream from our fields, talking all we can get in corn, alfalfa, and returning nothing to the soil," the fish culturist observed. When farmers discarded their waste into local waterscapes, they also drove down the water quality of the receiving waters. Dyche argued that successful and profitable fish farm ponds had the possibility of prompting farmers and the state to care about environmental degradation. "It is not impossible, in connection with the future development of the state of Kansas, to bring about results even greater...by improving our natural streams and ponds for fish-culture purposes and more especially for the building of artificial ponds and reservoirs adapted especially for the rearing for fishes," Dyche wrote in 1914. If farmers saw the economic potential of the local ponds and lakes around them, then they would clean them and use them. If farmers' attitudes changed Dyche predicted, "The ponds and streams of the state,

[37] Lewis Linsday Dyche, *Ponds, Pond Fish, and Pond Fish Culture* (Topeka: Kansas State Printing Office, 1914), 6.

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instead of being foul mud holes and sewer channels, bearing all kinds of disease germs, will be improved and made to become a source of great pleasure and profit."[38] Dyche saw ponds as generators of environmental health and economic wealth as well.

The pond provided a means for social control. It kept boys out of trouble, especially the ones who ran around with guns. "The same number of boys with small guns are a positive danger to themselves and a menace to the neighborhood where they operate," Dyche wrote. Gun-toting boys killed birds that Dyche claimed, "Ought to be spared on account of their value as destroyers of insect injurious to agriculture and horticulture." The boys too killed other innocent animals, or worse, hurt themselves and each other.[39] Fishponds could reduce the problems caused by rambunctious troublemakers.

Dyche was particularly fond of catfishes. As a fisherman, Dyche liked channel catfishing, but as a culturist, the bullhead catfish caught the game warden's most attention. "If I could have but one kind of fish in a small pond I think I would choose the Bullhead catfish," Dyche wrote.[40] It was easy to catch, it bred and grew in ponds, and it tasted good too. Despite Dyche's claims that the channel catfish was immensely popular in Kansas, and a fish he greatly admired, as a farm fish, it was a dud. The channel cat did not propagate in captivity, or at least Dyche was unsuccessful at getting channel cats to breed. The channel catfish would not breed in artificial settings.

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[38] Ibid., 7.

[39] Ibid., 5.

[40] Ibid., 82.

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Regardless of Dyche's earlier work on corn and catfish diet, he continued to write on flavor, palatability, and preparation methods. "When taken from warm, muddy, shallow water they can be much improved in quality and flavor and put in good shape for table use…" he wrote. By citing the environs from which the fish came, it was apparent the Dyche understood that water and environment imbued the fish with certain flavors. But he knew of an easy fix. His solution comprised of placing the fish in "small ponds or pools or even in galvanized-iron stock-tanks where fresh water can be supplied from a spring or pump…" The fish would live in clean waters and then the fisherman would have to feed the catfish, "corn chop, wheat, corn or graham bread, or almost any kind of clean vegetable or animal food," and flavor would be much improved.[41] The fish had to be fed out. Essentially the fisherman had to take the catfish and place it in an artificial environment and eat food it would other not eat in nature. That's when the catfish tasted better. These attempts took that catfish out of its natural environments, and that removal made the fish more acceptable, more palatable for consumption.

Within a few years, researchers found ways to spawn channel catfish. In 1917, Austin Shira the director of the U.S. Biological Station in Fairport, Iowa did just this. Shira was the first person to successfully spawn channel catfish by placing nail kegs, which were wooden barrels, in catfish ponds where the fish would lay their eggs. Although Shira's study did not claim any reasons behind his method, "in any event they worked," aquaculturist Robert Stickney observed.[42] In 1925, J.B. Doze spawned channel

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[41] Ibid., 85.

[42] Stickney, *Aquaculture in the United States,* 155.

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catfish by using kegs too and then fed the baby fish, or fry, clam and cornmeal mixture. He also placed lights above the mixture to attract insects for the fry to eat. Shira and Doze's artificial propagation of the channel catfish along with the feeding regiment demonstrated to fish culturists that they could, in fact, raise the animal. A few years later in 1929, the game warden of Kansas Alva Clapp, developed the basic foundational technologies that catfish fingerling farmers use to this day. By mimicking the behavior of the maternal male catfish protecting his young, Clapp developed paddles that mimicked the behavior of the animal protecting and taking care of his eggs. Clapp essentially developed a technology that embodied catfish behavior.

Despite research done by Clapp, it was apparent to him and others that the fisherman they served could care less about catfish. In 1929, Clapp admitted that state officials devoted to the interests "of the golf player and the aristocrat," left a dearth of research on catfish. He observed, "As fish men we tend to spend entirely too much time and money catering to the small percentage of men who pay the bills for fish cultural work." Not only did "fish men" focus on those sponsoring the research, but only a small group of men were fly fisherman, and or fished for trout or bass in the Mississippi Valley. With a guilty tone Clapp observed, "If so, I am not sure that we are doing the right thing."[43] To help the non-elite fisherman then, Clapp suggested the rearing of channel catfish in Kansas. Clapp claimed that the fish was "universally distributed" in the Midwest, and he had heard some declare that they rather eat the channel cat "than any

[43] Alva Clapp, "Some Experiments in Rearing Channel Catfish," *Transactions of the American Fisheries Society* 59, no.1 (1929): 114-117, 114.

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other fish in the world."[44] Notwithstanding Clapp's and other ichthyologists' views, white elites marginalized lower class whites and African Americans who found the fish to be as a reliable source of food and recreation. By marginalizing the channel catfish, elite sportsmen reaffirmed the legitimacy of the fish they caught, the equipment they used, and the supposed proper behavior of sportsmen.

The growth of fish farm ponds was not limited to Kansas. Between the 1930s and the 1940s, a dramatic increase in popularity of the farm fishpond culminated in two major events: the Dust Bowl and World War II. During the 1930s, the Soil Conservation Service promoted farm ponds as a conservationist measure across the nation. Farm ponds served numerous functions like flood control, conserving water in times of drought, and greased the wheels of irrigation.[45] After WWII, the SCS more aggressively promoted farm pond as a conservationist measure. Soon farmers in parts of South began conserving their farm waters too.

In the 1930s, warm water aquaculture hit the South as the SCS spread the gospel of farmponds.[46] In Alabama, the work of Auburn University's Homer Swingle was particularly important. Swingle was an entomologist who came to Alabama to study pecan pests, but soon turned his attention to fish. In the late 1920s, the entomologist lived in an economically depressed rural region, and worse, the fishing was terrible. In 1927, Swingle and a few other Auburn professors decided to start a fishing club in Auburn's

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[44] Ibid., 114.

[45] Joshua Nygren, "Soil, Water, and the State: The Conservation-Industrial Complex and American Agriculture Since 1920," PhD dissertation, University of Kansas, 2014, 106.

[46] Perez, *Fishing for Gold*, 2.

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only water supply, a local lake. The fish didn't bite. Together these professors decided to create their own fishing pond, but the information they had at hand just did not cut it. Remembering years after the fact, one Auburn researcher observed, "The result was one of the poorest fishing holes they had ever fished."[47] The professors' failure prompted a new research project, and it was conservationist in nature. With a desire to improve their own recreational activities, and what they must have seen in the ravages of poverty on rural southern bodies, one Auburn researcher remembered, "The justification described a vision of farmscapes where each farm could have a fish pond—a place where the family could enjoy 'healthful exercise in the open air' and 'provide a welcome addition to the family menu' that all too often was sadly lacking in fresh meat in the early 1930s."[48] Armed with recreational and agricultural visions, these scientists sought to shape the landscape by creating new man-made ecosystems, the enclose farm pond.

The Auburn fishing club's ambitions garnered support from the federal government, and the professors received funding to support their research. In 1934, through the Purnell Act, Swingle received funds to begin the Purnell Project, later known as the Farm Ponds Project. With this funding Swingle strove to conserve water, improve sport fishing, and produce fish as a potential food source.[49] Swingle's work was supplemented by Public Works Administration's establishment of a federal fish hatchery in Marion, Alabama in 1934. With the federal support both through funding and the

[47] E.W. Shell, "A Fish Story Pans Out, and the World is Better Fed," *USDA Yearbook of Agriculture* 1975 (Washington, D.C.: Government Printing Office, 1975),149.

[48] Ibid.

[49] Perez, *Fishing for Gold*, 3.

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Marion hatchery, Swingle and his colleagues began extensively researching the ecology of farm ponds and various fish species.

Beginning in 1934, Swingle researched the viability of various species of fish including a wide variety of catfishes. Swingle experimented with bullheads, yellow, red, white and channel cats. He and his researchers considered what types of catfish would grow intensively in ponds, how they spawned, what they ate, and their tolerance for chemicals and various poisons. Out of all the catfishes, Swingle found channel catfish most intriguing. That breed was omnivorous, ate all types of foods from the top of water, grew quickly, and one could obtain more meat from their bodies than other cats. Other species of catfish took longer to grow and sometimes they ate each other. The channel catfish was a hardier and easier cat to cultivate, and seemed like one of the more promising fish crops to grow in intensive aquaculture. Despite these experiments, Swingle had his eyes cast on popular sport fish in Alabama like largemouth bass and bluegill.[50]

By the 1940s, Swingle did find some farmers who wanted to raise catfish. The entomologist turned fish culturist observed that some farmers wanted to grow catfish because the fish was easily caught "on poles or in baited traps and will bite when the pond is too muddy for bream- or bass-fishing." While the fishing could be good, popularity of the fish stemmed from its behavior and physiology. Some farmers and fisherman wanted easy fish to catch. Swingle observed and judged with his own taste buds, that the animal had "few bones and hence are easy to eat," but "flavor of those

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[50] Perez, *Fishing for Gold*, 3.

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species which can be raised in ponds is generally considered inferior to that of bluegill bream or bass." Regardless of the inferior flavor, and despite the positive quality of growing channel catfish in intensive conditions, Swingle found that channel cats generally failed to reproduce in farm ponds. In 1942, he noted that growing these cat species, "Consequently cannot be recommended."[51] He and others may have been unfamiliar with the work of J.B. Doze or Alva Clapp's work on catfish spawning.

During World War II, across the South, the SCS touted farm ponds a way to provide recreation and additional dietary variety for rural populations. In 1942, Charles M. Sanders an SCS agent for Coosa River Soil Conservation District in Anniston, Alabama wrote, "Three things are important now…furs are needed in greater numbers for the boys in winter quarters," and "Fresh water and salt water fishes are more valuable to the war effort than is generally recognized…Millions of pounds can also be produced and used from ponds by the inland farmers who now get practically no fresh fish." Highlighting the nutritional value of fish, "Fish are high in protein and contain minerals and vitamins needed by rural people."[52] The provisions that wildlife and fish could produce could be both beneficial for the war effort and those living on the home front. Notwithstanding agency's promotion of farm ponds, J.A. Johnson the Assistant Chief of the Regional Biology Division wrote in the fall of 1941 that at least in Alabama, "Farm

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[51] H.S. Swingle and E.V. Smith, Management of Farm Fish Ponds, Agricultural Experiment Station Bulletin 254, April 1942, 11-12.

[52] Chas. M. Sanders "Suggestive News Article: War Production," Soil Conservation Service Reports and Correspondence 1936-1942, RG 114, Box no.1, Folder 411 Manuscripts, Press Releases, Clippings, Area AL-A-1, Birmingham, AL, 1/1942-6/1942, NARA, Atlanta, GA.

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fish ponds are evidently receiving only limited attention."[53] For the most part Johnson did not see evidence that Alabama farmers turned to farm ponds. But in other parts of the South the popularity of fish farming grew.

During the 1940s, the SCS continued to promote the fishpond as ways to conserve human and agricultural resources. In the 1940s, the Soil Conservation Service (SCS) considered fishponds a boon. "An important part of soil and moisture conservation is making the best use of every acre on the farm. Where a suitable site for a farm pond exists, no better use can be made of such land than to develop it for the production of fish for the farm family," Verne Davidson of the SCS wrote.[54] For folks like Davidson a biologist for the southeastern division of the SCS, farm ponds also provided recreation and added dietary diversity for rural populations. Davidson wrote, "Where a suitable site for a farm pond exists, no better use can be made of such land than to develop it for the production of fish for the farm family." Keeping in mind the health and spirit of rural folks the biologist continued, "A fishpond makes better living on the farm…Fresh fish in farm diets aid the proper development of growing children. Such food contributes to the strength and soundness of the Nation's rural youth. They also improve the health of adults and keep them fit for work."[55] While many farmers chose to raise bass and bluegill, others cast their eyes onto various species of catfish.

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[53] "Report Visit of J.A. Johnson, Assistant Chief, Regional Biology Division, to the Tombigbee-Warrior District, Area I, Alabama, October 1 and 2, 1941," Soil Conservation Service Area I Birmingham, AL Reports and Correspondence 1936-1942, Box 3, Folder 732 Correspondence RE: Wildlife 1940-1942, Area AL-A-1, Birmingham, AL, NARA, Atlanta, GA.

[54] Verne Davidson, "Farm Fishponds: For Food and Good Land Use," USDA Farmers' Bulletin 1983 (Washington, D.C.: Government Printing Office, 1947), i.

[55] Ibid., 1.

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In the 1940s, crop allotments and the growth in recreational fishing prompted rice farmers to utilize their agricultural landscapes differently. The region's soils, flat topography, and rich water supply provided farmers with an environment in which they could easily build fishponds and grow fish. When these farmers had to take their lands out of rice production for crop allotment purposes, they typically grew soybeans. They grew rice for two years, and typically devoted the third year to the legume. In the 1940s, some farmers switched soy for fish. They found that growing fish prevented a "souring of the soil," or reduced acidity.[56] These agricultural conservationist measures coupled with a growing population of recreational fisherman fed into the rise of fish farming, particularly baitfish.

By the 1950s, regardless of the SCS's promotion of aquaculture, some farmers encountered troubles growing fish. In general, farmers found it difficult to locate aquaculture experts, and many were left scratching their heads. By 1958, the U.S. Bureau of Sport Fisheries and Wildlife began building an experiment station in Stuttgart, Arkansas to help rice farmers conserve their soils and to ensure that the state's waters were full of fish. The researchers at the station investigated rice and fish rotation, including the experimentation on various species of fish, fish diseases, nutritional requirements in feeds, and spawning techniques. But the station was up and running in 1962, fish farmers had to look to the United States Department of Agriculture (USDA)

[56] "Fish Farming Problems," presented to the Advisory Board, U.S. Fish and Wildlife Service in Meeting, Washington, D.C., May 23 and May 24, 1960, page 1, James William Fulbright Papers, MS F956, BCN 138, F25 Fish Farming Program, University of Arkansas Special Collections, Fayetteville (UARLF).

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for help.[57] Farmers found that the agency lacked expertise. “Many of the ponds that were originally constructed were under the supervision of the Agricultural Department, and unfortunately, their design was not a finished product or completely adaptable to fish farming,” W. M. Apple a member of the Chamber of Commerce told an Advisory Board of the U.S. Fish and Wildlife Service (USFWS) in 1960. Moreover, the agents were unfamiliar with how to grow fish or access them. “The difficulty that the fish farmers encountered is principally one of fingerling supply for very few have the technical knowledge or equipment to furnish their own supply,” Apple observed.[58] With help from the Stuttgart Experiment Station it seemed that farmers had all they needed, but they encountered marketing problems.

In the 1950s, Arkansan rice farmers began growing buffalo fish. Farmers found that buffalo fish easy to grow and seemed like a good table fish, but they quickly faced marketing problems. “The buffalo—in spite of the fact that it is a choice table fish—is not generally accepted by the public,” Apple told the same Advisory Board that he complained to about the lack of proper assistance in Arkansas. “This may be traceable by the fact that it is classified as a rough fish and normally only eaten by those in the very low income bracket. This is a misconception on the part of the public that must be erased through a program of education,” Apple concluded. But for farmers in the Arkansas, they did not have the time or resources to educate those consumers who found the buffalo fish

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[57] “Fish Farming,” *Commercial Fisheries Review*, September 1962, 24, William Allen Ecology Records (WAER), Box 4, Folder 7, Butler Center for Arkansas Studies (BCAS), Little Rock (LR).

[58] “Fish Farming Problems,” May 23 and May 24, 1960, 1, James William Fulbright Papers (JWFP), F25 Fish Farming Program, MS F956, BCN 138, UARLF.

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inedible. Although aquaculture could reinvigorate farmers' soils, they could not get rid of the buffalo fast enough, if at all. They soon turned to catfish. In parts of Arkansas catfish was very popular. "The farmers found a ready market for all available catfish," Apple observed, and added, "Actually, for table purposes, there is very little difference in the food quality of the catfish as compared to the buffalo."[59] Between 1960 and 1965, farmers began cultivating both buffalo and channel catfish.

More Arkansas fish farmers turned to catfish. In 1960, farmers put 1,458 acres under water towards buffalo fish and 101 acres towards catfish. Three years later, farmers had devoted 1,451 acres to catfish, and only 303 acres to buffalo. Catfish became a viable alternative for fish farmers.[60] During the decade, the Bureau of Sport Fisheries and Wildlife observed "a good future for fish farming. More people are accepting catfish for food and sport."[61] By the mid-1960s, Roy Grizzell observed other reasons for the buffalo fish failure. "Due to poor yields caused by competition of trash fish such as carp and shad, seasonal flooding of fish markets with buffalo, a price drop of buffalo, and the increasing popularity of soybeans, buffalo fishing farming [sic.] declined," Grizzell observed.[62] Farmers may have failed at cultivating buffalo fish for a large market, but their efforts in growing channel catfish proved more successful. Early catfish farmers,

[59] Ibid., 2.

[60] John Hargreaves, "Channel Catfish Farming in Ponds: Lessons from a Maturing Industry," *Reviews in Fisheries Science* 10, no. 3 & 4 (2002): 503

[61] "United States: Catfish Farming Grows in the South," *Commercial Fish Review*, 8-9/69, page 2, WAER, Box 4, Folder 7, BCAS, LR.

[62] Roy Grizzell, Jr., "Commercial Production of Fish on Farms," nd, page 2, WAER, Box 4, Folder 7, BCAS, LR.

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however, still needed help from various public entities like land-grant universities and government agencies like the USDA and USFWS.

In the mid 1960s, more government agencies gave helped fish farmers. In 1965 alone, the Production Credit Association loaned some $1,443,000 to fish farmers in Lonoke County, Arkansas and its surrounding areas.[63] In the late 1960s, Roy Grizzell, Jr., a SCS biologist roughly calculated the average costs and profits for Arkansan fish farmers. The average catfish farmer could expect to spend $330.00 per acre, and expect to net averages at $181 per acre. The return on minnows was roughly the same, while buffalo fish and the undisclosed "sport fish" brought in significantly less profits, albeit farmers could expect to spend less money to grow these fish. By the 1960s, despite Grizzell estimated averages costs and profits because these farm enterprises were fairly underdeveloped and lacked standardization he observed, "There is no such thing as a typical fish farming enterprise," and the figures he calculated for a farm would, "depend largely on how well they manage, and the acceptance of their products on the market."[64] By the mid-1960s, some Arkansan fish farmers used up to twenty percent of ground water in their local areas.[65] Factors like individual practice and interactions with local markets were imperative to a farmer's success.

Regardless of locale, fish experts reminded farmers that they had to treat fish farming seriously. "Fish production, like other aspects of modern farming, must be run on

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[63] Ibid., 1.

[64] Ibid., 5.

[65] Ibid., 1.

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a businesslike basis," Arkansas fish experts Roy Grizzell and John Gammon wrote in 1967.[66] Then comparing to the "old 'Huckleberry Finn' days" the two fish farming experts continued that essentially farmers could not leisurely farm as they might leisurely fish. Ostensibly hoping "might catch something, do not fit in the picture of modern day fish farming."[67] Fish farming was a business, not a recreational activity.

Although Grizzell and Gammon observed that "fish farming is practicable on fairly small farms" that was in comparison to traditional row crop farmers who grew corn or wheat. They observed that farmers needed to have at least twenty acres under water to be a profitable venture. They estimated that farmers needed $16,500 to invest to start a twenty-acre catfish farm. For the two fish experts, the initial cost was worth it. Farmers with poor lands need not worry, those soils could "quite often be developed into profitable fish production" too. Moreover, fish farming could be a one-man endeavor. If only a twenty-acre operation, the farmer only needed additional help with the harvest. Lastly the fish experts found that most farmers that turned to fish, like catfish, did so because they found it "fascinating" work.[68] For Grizzell and Gammon interested parties with smaller operations and poorer lands but had access to loans, fish farming could be rewarding. But what about the fish crops themselves?

When it came to demand, some fish farmers were optimistic. Beginning in the 1950s Edgar Farmer from Dumas, Arkansas starting growing buffalo fish. He was

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[66] Roy Grizzell, Jr. and John Gammon, Jr., "Fish Farming—Business and Pleasure Do Go Together," in *USDA Yearbook of Agriculture 1967* (Washington, D.C.: Government Printing Office, 1967) 187.

[67] Ibid.

[68] Ibid., 188.

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disappointed, however, with his results. People did not buy the buffalo fish like he had anticipated. For fish experts like Grizzell and Gammon the buffalo fish was a "large bony" trash fish. Regardless of this view, farmers like Farmer, who decided to take a leap, must have thought that regardless of its status as a food that people would still buy the fish. By 1967, he changed his fish crop to catfish, and all kinds like, the albino channel cat and blue cats. Farmer catfish farming was a successful, but it could have been better. He observed that marketing cats had a "mighty long way to go," but he had faith. "This fish business has grown into a bigger thing than I had anticipated. There seems to be no limit to the demands for good food fish—and these catfish are delicious," Farmer declared. While farmers like Farmer remained hopeful, others looked into the murky waters and saw nothing.

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Incredulous observers predicted that catfish farmers would fail for number of reasons. For one, catfish consumption was a highly local custom, and for the most part was associated with the poor and people of color. Moreover, if folks could not purchase the fish, there was a chance that they could just head to their local rivers. Skeptics' basic assumption was that the displeasing tasting catfish could be easily caught in river, streams, and ponds throughout the United States, basically what poor folks had done for centuries. It was free for the taking. Unlike trout and bass, that needed special fishing equipment, a cane pole and any bait sufficed for the catfish.[69] Catching it was easy and cheap. In 1967, for instance, fish cultivator Glen Mason alleged, "people thought I was

[69] Linda Crawford, *The Catfish Book* (Jackson: University Press of Mississippi, 1991), 21.

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crazy" for catfish farming. Ridicule aside, Mason claimed that catfish "puts cotton in the shade" and predicted, "It's going to be a big industry in Mississippi."[70] Within a decade, catfish did become big money in the state. But to expand their markets, farmers had to ensure consumers knew that the farm-raised cat was wholly different from its wild counterparts.

Early catfish processors faced a lot of problems with marketing. In the 1960s, in Greensboro, Alabama two friends, Richard True and Chuck Stevenson decided to grow catfish in a pond. The two men went out to a river, caught some fish, and used them as brood stock to start the basis for their catfish pond. They wanted to sell the fingerlings—baby fish—they produced, but did not know how. They contacted Joe Glover, a grocery store owner and meat market owner. "Soon [they] realized that for fingerlings to sell, a market needed to be developed for catfish. That's when they came to me for help," Glover recalled to *The Catfish Journal*'s Ralph Ballow in 1990.[71] In 1966, True, Stevenson, and Glover started STRAL, which was a composite of their names, and built one of the nation's first catfish processing companies. [72]

Early catfish producers sold their crops mainly to local markets and people, but they found that they still had to create demand. Soon after its formation in 1966, the owners of STRAL observed that despite its reputation, catfish was not a food that many people actually ate, and fewer still seemed ready to purchase rather than catch it.

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[70] Jean Culbertson "Catfish farming catches one and bumper crop pays well," *The Clarion Ledger,* March 19, 1967.

[71] Ralph Ballow, "Joe Glover Sr. Parleys Grocery Store Business into Catfish Career," *The Catfish Journal*, June 1990, 16.

[72] Perez, *Fishing for Gold*, 13.

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Stephens observed, "Fisherman, just anybody who fished," ate catfish, and that "the restaurants didn't have them." People looking for catfish had to go to the rivers, or catch it themselves. "You'd have to go to a specific place along the river, somebody who served catfish," Stephens remembered, and added, "There weren't too many of them."[73]

STRAL's owners had little interaction with catfish themselves. Stephens had never caught catfish before business took off in the late 1960s. He didn't have experience catfishing or cleaning them. Stephens remembered of his interactions with catfish prior to starting STRAL. He remembered in 1997 that the only people with experience with catfish "Were a few of the people who were along the river, river fishing." He continued, "But by and large I think there were very, very few people in the United States that even did anything that had to do with catfish." Stephen even claimed that, "It was basically considered a trash fish at that particular time…All had the idea it was a scavenger and it just ate whatever was on the bottom of the rivers. And by nature, the catfish is a bottom feeder." Stephens of course did not consider the marginalized lower classes or non-whites that may have lived and sustained themselves on the fish for free. That being the case, STRAL's owners prided themselves for their business acumen. "We've changed that," referring changing the pervasive attitudes towards the fish.[74] For a group of men that did not have experience catching, cleaning, or eating the fish, they succeeded in creating demand and expanding the local market for catfish, at least among non-traditional catfish consumers. Between 1970 and 1975, Glover observed, "Enough catfish was produced in

[73] Chester Stephens, interviewed by Karni Perez, February 28, 1997, 5, Karni Perez Papers, Auburn University Special Collections, Auburn, Alabama. Hereafter referred to as the Perez Papers.

[74] Stephen Interview, 3.

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Alabama to satisfy the markets *we* had created."[75] STRAL's lack of experience with the fish coupled with the initial lack of markets caused onlookers to question the profitability of the enterprise.

Alabama's earliest catfish growers faced skeptical observers. Their skepticism made sense Due to the perception that consumers who wanted catfish could just find it in their local rivers, incredulous onlookers to scoff at the prospect of making the animal worthy of consumers' cash. As Stephens admitted, there was not a viable market for a large amount of catfish on the market, and the three men with little interactions with the fish, encountered a rocky, risky, but steady start. Those who subsisted off the fish may not have been STRAL's main target group, and the perception that there was little market value for the fish made it hard for the owners of STRAL to obtain loans from banks. After a year of operation, Stephens, Glover, and True finally acquired a few loans to expand their enterprise. It took personal connections and many meetings with local banks. Stephens remembered, the loan officers initially "laughed us out of the bank." Bankers would exclaim, "Anybody want catfish, the river's full of them and you think you're going to go sell them and [they can] go get them for nothing? Ha, ha, ha."[76] Catfish farmers encounter many hurdles ahead of them, including the development of markets, access to loans, and just learning the basics of cultivating cats.

By the end of the 1960s, about the time when Tom Slough threatened the MAFES director Jim Anderson thousands of feet above the Earth's surface, catfish farming had

[75] Ballow, "Joe Glover Sr. Parleys Grocery Store Business into Catfish Career," 16. Note: Author added emphasis.

[76] Stephens Interview, 5.

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evolved into a commercial enterprise. Catfish farming proliferated in other parts of the South including Alabama, Georgia, Tennessee, Louisiana, and Tennessee. In Alabama, Auburn's Homer Swingle had experimented with fishponds during the Great Depression up to the 1960s, when Alabama farmers first became interested. By 1967, entrepreneurs and catfish farmers had built processing plants in the Mississippi Delta and the Alabama Black Belt, near their sources of catfish. Processing farm-raised catfish increased the marketability of the fish because it took the process of fishing, gutting, skinning, and cleaning out of the equation. By the end of the 1960s, more farmers grew catfish as compared to the beginning of the decade. In 1963, farmers devoted some 2,370 acres to catfish and six years later, farmers had an estimated 39,300 acres under water. It was clearly becoming a commercial enterprise. This transition, signaled a shift away from its conservationist roots to one that was purely commercial in nature. With the uneasy transitions from extensive to intensive aquaculture, farmers faced more problems with disease, efficiency, and expanding their markets. The solution to their problems lay in government support and research. The land-grant research complex provided the answer to farmers' problems.

During these tumultuous and uncertain early industry years, catfish farmers in Mississippi pressured powerful politicians like Senator John C. Stennis, for political support for channel catfish research funds. In 1969, John Jones from Greenville, Mississippi wrote, "I had a little trouble last fall with fish dying and no one really knew just what was causing them to die, or just what to do about it." He continued, "The Cooperative Extension Service needs a little help so they can bring this information to us

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as it become available."[77] Another catfish farmer, Mac Abernathy wrote Stennis, "I hope to spend the rest of my life in this new business," before asking for the senator's political support to garner more research funds for catfish aquaculture.[78] These pleas worked. Mississippi State University began more extensively researching catfish aquaculture by the late 1960s, joining other southern land-grants like Auburn University, Louisiana State University (LSU), and various schools in Arkansas that had already studied the industry for years.[79]

Beginning in 1971, Mississippi participated as a full partner in a regional catfish research initiative. The Agricultural Experiment Stations in eleven southern states and one northern state, Massachusetts, began a far-reaching research project on catfish marketing, breeding, and production. The five-year project had several objectives. The land-grant universities researched the fish's genetic parameters, its nutritional needs, and disease. The stations studied economic issues, water quality standards, production, and marketing.[80] The project's coordinator, Auburn University's Dr. R.D. Rouse, praised the initiative and claimed, "We think we have the best system that man has ever devised to

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[77] John Jones to John C. Stennis, March 20, 1969, John C. Stennis Collection (JCSC), Catfish Farming-Department of Agriculture & Interior 1969 Folder, Series 32, Box 2, Congressional and Political Research Center (CPRC), Mississippi State University Libraries (MSUL).

[78] Mac Abernathy to John C. Stennis, March 15, 1969, JCSC, Catfish Farming-Department of Agriculture & Interior 1969 Folder, Series 32, Box 2, CPRC, MSUL.

[79] For more information about the raise of the catfish industry and particularly Auburn University's role, see: *Karin Perez, Fishing for Gold: The Story of Alabama's Catfish Industry* (Tuscaloosa: University of Alabama Press, 2006).

[80] "Catfish on the Campus, New Horizons: Agricultural Experiment Stations in 12 States Participate in Massive Regional Research Project," *The Catfish Farmer,* July 1971, 8.

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advance knowledge through research."[81] Despite the expansive research plan, the "best system" faced a colossal hurdle.

In the early 1970s, catfish farmers and their political allies promoted the crop as a social good. The Catfish Clan, a group of thirty-five politicians hailing from the Sunbelt region and catfish producing states, lobbied for the industry. [82] The Clan presented a variety of reasons to support catfish aquaculture that related to food production, pollution, and the plight of American agriculture. Catfish supporters claimed that it was a cheap and efficient protein source that could feed people at low cost. Catfish bodies could turn roughly 1.25 pounds of feed into one pound of flesh protein.[83] The broiler chicken had similar ratios, but beef cattle needed eight pounds of feed to convert to one pound of protein. Moreover, the Clan argued that Americans consumed more fish then ever before, and farmers could produce this cheap, unadulterated protein for hungry Americans.

Lastly, the Catfish Clan purported that the fish could also alleviate one of the most pressing agricultural problems of the era, the decline of the small farmer. In 1971, Arkansas Representative Bill Alexander stated, "Catfish farming is filling a void in what has been the backbone of our nation's agricultural industry for decades—the family farm operation." He continued, "The abundance of available land and new technological advancements will make it possible for many farm families to remain in rural areas and make a decent living."[84] That same year, Mississippi Rep. Charles Griffin defended the

[81] Ibid, 8.

[82] "Catfish Clan in Congress," *The Catfish Farmer*, July 1971, 19.

[83] Mary Nina Hicks, "Processing Studies on channel catfish," Master's Thesis, Mississippi State University, 1972.

[84] "Catfish Clan in Congress," 22.

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Fish Farming Assistance Act and wrote, "My proposal is designed to help the poor to make a decent living on the farm. If he cannot do so, he might migrate elsewhere." [85] Alabama Representative Tom Bevill also claimed that fish farming helped the small farmer and stated, "Our small farmers constitute the economic foundation for a strong rural America."[86] The crop, the Catfish Clan seemed to argue, was a boon to American agriculture and the consumer.

Regardless of the benefits the Catfish Clan enthusiastically purported, skeptical onlookers saw catfish farming as a risky new agricultural undertaking. In 1971, Arkansas Representative J.J. Pickle wrote to William "Bill" Poage, the chairmen to the Committee on Agriculture, "Offhand I can't believe that fish farming offers a solution for our agricultural problems…"[87] Poage did not want Congress to be responsible for encouraging a risky endeavor to farmers. Although he believed the industry needed encouragement, his letter ended on a grim note. "I would want to be mighty slow about telling somebody that there was gold fish in this pot at the end of the rainbow," Poage warned.[88] Because catfish aquaculture was new and markets and demand had to be created, it seemed to many, a wasteful endeavor.

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[85] Charles Griffin to Burt Talcott, March 16, 1971, Box 49, CHG Personal Legislation H.R. 19981 Fish Farming Assistance Act of 1971 12-19-70 Folder, CPRC, MSU.

[86] "Catfish Clan in Congress," 22.

[87] Letter from William "Bill" Poage to J.J. Pickle, December 30, 1970, Congressional and Political Research Center (CPRC), Mississippi State University (MSU), Mitchell Memorial Library, Mississippi State, Mississippi. Charles Griffin Collections, Box 49, Folder CHG Personal Legislation H.R. 19981 Fish Farming Asst. Act of 1971 12-19-70.

[88] Ibid,

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Even Mississippi Commissioner of Agriculture in 1971, Jim Buck Ross thought that farmers had to convince consumers to buy the fish. "I believe that the only major thing that is lacking is getting into the marketplace to sell the catfish," he stated. Ross concluded, "We must create a desire on the part of the person holding the family purse strings to purchase catfish, put it on the family table, enjoy it—and be a repeat customer."[89] Consumers had to be convinced they ought to spend their hard earned cash on catfish.

In the early 1970s, catfish farmers recognized they had a narrow market. "The demand for catfish is presently limited. The industry is confronted with a collection of small isolated pockets of demand as opposed to a strong regional or national market," the *American Fish Farmer* observed in 1971. Local customs created a wide variety of views on the fish, and "While catfish is considered a premium species in some localities, it is despised and hated in others." Even in the South, catfish was not widely popular and consumption varied along race and class lines.

Catfish farmers were aware that if they wanted to expand their markets they needed to break the lines that tethered catfish to African Americans and the poor. The *American Fish Farmer* made these associations abundantly clear for their fish farmer audience. In a table that classified catfish consumers by race, "Negro" and "white," income, religious affiliation, and region, the magazine found that consumption was "higher among certain ethnic groups," which they meant African Americans, and consumption increased in populations of poorer and less educated the consumers. The

[89] "A Joint Interview with the Commissioner of Agriculture and His Executive Assistant on the Catfish Industry's Future in the State," *The Catfish Farmer*, May 1971, 19.

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trade magazine argued that if the industry were to flourish, that they had to sell the fish to a higher income bracket. In coded language, the *American Fish Farmer* tried to persuade catfish farmers that they needed to market the fish to white, middle, and upper class folks. The trade magazine asserted, "These demand characteristics," which they meant the poor, the uneducated, and African Americans, "suggest the inferior nature of traditional catfish products; inferior in the sense that as income increases quantity consumed deceases,"[90] The magazine suggested that traditional catfish consumers were then too, inferior, as were their food choices to eat catfish. *American Fish Farmer* suggested, "The economic inferiority of catfish coupled with the isolated pockets of demand underscores the importance of promotional activities in increasing catfish consumption." Marketing the fish to increase consumption made sense, but the magazine advised for more. "Shrewdly devised marketing schemes can and do influence consumer tastes," the magazine concluded. The apparent division between black and white consumption and the class connotations was not lost to catfish farmers. The catfish needed a new face; a face that educated, white, and middle to upper middle class consumers could buy.

For some consumers the name catfish conjured confusion, disgust and the name was loaded down with class and regional connotations. In 1972, a farmer expressed what he believed to be the two groups whose perceptions of catfish posed the biggest problems: those who were unfamiliar with the crop and those who viewed it as trash. He stated, "farmed raised catfish have...important psychological barriers to overcome. The first is the name of the fish itself." The farmer claimed, "Except to the traditional

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[90] "Catfish Production: Some Regional Comparisons," *The American Fish Farmer*, August 1971, 10.

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connoisseurs in the South, ‘Catfish’ are apt to conjure up in the mind of the potential consumer a hairy, whiskered eating experience, or remind him of a junk fish.”[91] Regional distinctiveness was an additional problem. “Northerners throw [catfish] back in the lake and Westerners would not recognize if they fell over it,” the farmer asserted.[92] Clearly catfish had an image problem.

Being free was one issue; the other was the flavor of the animal’s flesh. Fish farmers and feed producers advertised on billboards in various spots throughout the South to promote the edibility of the catfish. In 1970, Hills Blalock the owner of the Riverside Foods, a catfish feed plant, promoted his fish feed and the fish’s palatability. He stated, “We think that if we can persuade more people to eat catfish, we’ll help promote the industry.”[93] W.W. McMillian who interviewed Blalock, studied Riverside’s billboards. He found that the catfish industry knew they had to convince even Mississippians. McMillan noticed, “The biggest and boldest letters in red simply proclaim, ‘Catfish…Good Eatin!’, and this is the message that most motorists throughout Mississippi will get at first glance.”[94] The billboard may demonstrate that even Mississippians, who were familiar with the fish, may not have considered it “good eating,” if they had to be reminded.

[91] “Catfish Farming Joins Other Delta Industries,” *The Greenwood Commonwealth*, July 22, 1972, Catfish Industry Vertical File, Mitchell Memorial Library, Mississippi State University Special Collections, Mississippi State, Mississippi.

[92] “Catfish Industry is Luring Agribusiness, Foreigners,” *The Clarion Ledger*, June 3, 1981.
[93] W.W. “Billy” McMillian, “Baby Grows Up,” *The Catfish Farmer,* May-June, 1970, 30.

[94] Ibid.

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By the 1970s, farmers confronted various problems associated with commercial farm-raised catfish production, but of the biggest was that there were too many farmed cats and not enough demand. In 1971, *The Progressive Farmer* sited four problems the industry faced. First, consumers in the North and West were not as familiar with the fish as in the rest of the nation. The problem of publicity meant that Northerners and Westerners, or at least white middle class folks in these regions, "have never tasted any catfish but the horrible tasting salt water species." Kenneamer claimed, "we need to come up with catfish slogans similar to the 'Eat More Beef!' stickers." The second problem facing the industry according to Kenneamer was the cost of harvesting labor. The third problem was processing. The industry needed more automated labor to cut down on production costs. "We cannot expect to retail catfish for $1.09 per pound and still be able to buy tasty flounder fillets for 74 cents to 79 cents per pound." "Catfish are very hard to sell at the present time," Allen Spragins, Jr. told the farming magazine in 1971. He continued, "Processing plants are flooded with fish and have cut the price to 30 cents per pound…I have 240,000 pounds of fish to sell but no market. I have spent quiet a sum of money long distance calls and letters and still cannot find a market."[95] Fish farmers in Alabama, also faced the same problem. A. S. Mathews, Jr. an extension agent wrote, "Many farmers tell us that their major farm problem is that of marketing. We do no have enough markets to permit farmers to sell their products to the best advantage."[96] As the industry became a commercial enterprise, the demand could not catch up to the growth.

[95] "Markets for Catfish," *The Progressive Farmer*, February 1971, 38.

[96] A. S. Mathews, Jr., "Marketing Problems Limiting Production," *The Anniston Star*, January 16, 1971.

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Lastly, the industry faced an inconsistent flow of farmed catfish to markets. Kenneamer observed that grocery stores only sold periodically catfish. "If the market is flooded, why aren't channel catfish from ponds on the supermarket meat counter every day instead of once a month?"[97] Like Kenneamer, extension agent A. S. Mathews observed in Alabama that, "We do have a market for locally produced produce but our number one problem is an always has been a sufficient quantity to maintain this facility."[98] The lack of catfish on the market may have demonstrated the lack of an avid market for it too. The industry faced growing pains.

Farm magazines reminded novice farmers that growing catfish was "no cinch."[99] To do well, the *Progressive Farmer* advised, "Get the best advice you can from your county agricultural Extension office and from your SCS officials. Keep this in mind: catfish aren't a bonanza for get-rich-quick schemers." One catfish farmer even told the magazine, "Catfish farming is not for retired people…" Catfish farmers were bothered by the misconception that catfish farming was stress-free enterprise. One farmers observed that the, "They [novice farmers] think they can just dig a hole, put some fish in it, and sit back and wait to take in the money. I regret to disillusion such people, but it isn't all that easy."[100] *Progressive Farmer*'s Kenneamer also observed, "Catfish farming is a cold, calculating business just as is growing hogs, cattle, or crops."[101] It was serious business.

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[97] "Markets for Catfish," 38.

[98] Matthews, "Marketing Problems Limiting Production."

[99] Ed Wilborn, "To Succeed in Catfish Farming," *The Progressive Farmer*, May 1971, 70.

[100] Ibid.

[101] Earl Franklin Kennamer, "Catfish Cash," *The Progressive Farmer*, October 1970, 26.

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A mistake could lead to the downfall of a farmer who looked at catfish as easy cash. The. farmers needed support from state and federal agencies to cushion the risks associated with the fish enterprise. Some turned to their local politicians to garner more support. Some looking for economic uplift tried farming catfish despite some doubts by folks like Poage. One of these farmers was Reverend Clifton Whitley Jr. In the 1960s, the black farmer and civil rights activist found a circular from the Department of Interior (DOI) and United States USDA in a Holly Spring, Mississippi post office that described ways farmers could conserve soil and add diversity to their farms by cultivating catfish in ponds. Whitley was instantly intrigued by the idea. The reverend took the pamphlet home and began a decade long pursuit to implement catfish farming in northeast Mississippi. After traveling to places like the University of Kansas to learn more about fish farming, the reverend applied for grants and loans from the federal government and private religious organizations. He saw catfish as more than just a way for black farmers to pull themselves out of from the dredges of poverty. As the civil rights movement shifted towards a focus on Black Power, which promoted ideas of economic justice as well as political power, farm-raised catfish served as a foot soldier in the fight against poverty.

In the 1960s, Whitely could be found with the ranks of Fannie Lou Hamer in the Mississippi Freedom Democratic Party (MFDP), the group that challenged Mississippi's all-white Democratic Party in 1964. Two years later the reverend ran for Senate again against James O. Eastland. The race against Eastland garnered Whitley negative attention from whites, as he challenged Mississippi's political culture head-on. Whitley's platform supported labor unions, agricultural cooperatives, legalization of alcohol, as well as access to equitable medical and educational resources for both African Americans and

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white Mississippians. The activist's senate campaign had a special emphasis on economic uplift. "Every effort must be made that will make it possible for the small farmer and business to make a decent living," Whitley stated in one campaign speech in 1966. Although Whitley viewed the Lyndon B. Johnson's War on Poverty as a path to creating an economically equitable world, he warned that programs from the Economic Opportunity Act would only be maintained and secured if "adequate administration of the parts of the program" ensured that those who needed the funds received them. Whitley blamed Mississippi's stunted economy and body politic on the legacy of fraudulent electoral processes and prejudice bureaucrats.[102] Although Whitley did not win the senate seat, he continued to search for ways to improve the economic and social conditions of black Mississippians.

To ameliorate such conditions, Whitely looked to catfish farming. He wanted to establish a farm-raised catfish cooperative in West Point, Mississippi, but faced multiple barriers. In the late 1960s, he applied for loans and grants from religious organizations and the federal government. He obtained $162,500 in loans from the Presbyterian Economic Development Corporation (PEDCO), and from 1969 to 1971, he received three loans from the Office of Economic Opportunity (OEO) totaling $356,000.[103] Before the OEO approved Whitley's application, the agency had rejected his proposals for the catfish cooperative three times.

[102] "Clifton Whitley, Candidate for U.S. Senator Speech," January 9, 1966, page 2, Kathleen Dahl, Freedom Summer Collection, McCain Library and Archives, The University of Southern Mississippi.

[103] "Information relative to request from Congress Abernathy" December 1, 1971, Mississippi Fish Equity, Mary Holms Junior College—OEO, 1968-1972 Folder Box 181, Special Collections, J.D. Williams Library, University of Mississippi, University, Mississippi. Hereafter referred to Abernathy Papers.

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Money was not everything. After obtaining the loans in the 1969, Whitley soon discovered that the local offices of the USDA and the SCS would not assist him in pond construction. "I can't understand how these government offices operate to help people can justify actually hindering people," Whitley told *the Afro American* in 1969. He continued, "In a state where almost annually laws are passed that work against black people, it's to our advantage to get involved in politics. In fact, our survival may depend on it."[104] In 1969, Whitley's dreams of growing catfish for economic gain was political act, and the *Afro American* concluded that he was a "deceptively savvy activist."[105] Despite the lack of help from various agricultural agencies in the state, Whitley started a catfish cooperative.

From 1969 to 1972, Whitley began and ran the Mississippi Fish Equity (MFE) in West Point. The cooperative served seven northeastern Mississippi counties including: Clay, Monroe, Webster, Oktibbeha, Noxubee, Choctaw, and Chickasaw counties.[106] In the early 1970s, of the estimated 200,000 residents living within these seven counties, one half lived on $3,000 or less. Many of these residents lived below the national and state poverty lines.[107] Although the cooperative first goal was to make enough money to

[104] Phil Homer, "Catfish Farming Brings Money, Pride to 105 Black Farmers in Mississippi," *The Afro American*, November 22, 1969.

[105] Ibid.

[106] "Proposal for refunding of Mississippi Fish Equity, for Fiscal Year 1971-1972," 17, Mississippi Fish Equity, Mary Holms Junior College—OEO, 1968-1972 Folder Box 181, Abernathy Papers.

[107] Ibid.

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function, its second was to "provide low-income farmers an additional source of income."[108]

Whitley chose Mary Holmes College, a historically black college to host the venture. Although Mississippi State University (MSU) could provide assistance just 20 minutes away from West Point, Mary Holmes hosted other OEO activities like Head Start and boasted a long history of civil rights activism. Whitley wanted the catfish enterprise controlled and sustained by African Americans. Indeed choosing Mary Holmes over the state's land grant was a bold defiant move. Despite, the influence MSU had in catfish aquaculture from the 1970s to the present day, the university did not have a catfish expert until the year that the MFE opened its doors. In the late 1960s, catfish aquaculture science was in flux because farming the fish was such a new endeavor. For a moment it seemed that Mary Holmes could have been an influential force in aquacultural science.

Between 1969 and 1972, the cooperative provided assistance to farmers interested in catfish farming. By 1971, the cooperative included 120 members, and their ultimate goal was to help 1,000 catfish farmers by then end of that year. The MFE provided help with pond construction and pond maintenance, assistance growing catfish, and processing crops. Each member of the cooperative paid the MFE $3 in annual dues and gave authority over expertise to a board of directors and the MFE staff. After paying due, farmers could then construct ponds with MFE assistance at $250 per acre, or about a fourth of what it normally cost to construct ponds. The MFE generally constructed two two-acre ponds for each of their members. They wanted to keep operations small. When

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[108] Bernard E. Hefferman, "Mississippi Catfish Cooperative Helps Those Who Help Themselves," *Fish Farming Industries*, April 1971, 25.

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the Fish Farming Industry magazine questioned "Why are the ponds so small?" The reverend observed that although it ultimately cost farmers more to build smaller operations, that at the end of the day poor small farmers did not have to capital to sustain big catfish farms and they had "more effective control over a small pond than a large pond in terms of feeding, disease, harvesting—in short overall management."[109] The cooperative provided equipment and the laborers to construct the ponds, and processed fish for farmers. In 1969, Whitley estimated that by 1970 the MFE would process 20,000 pounds of farmed catfish per day. The reverend never realized these dreams. Indeed catfish farming and processing was hard work, but hostile white locals added another dimension of stress in running the cooperative.

Mississippi Congressman Thomas Abernathy was one of the most vocal critics of the MFE. Abernathy consistently sought to undermine the cooperative's actions. He complained about the OEO and Whitley. In 1969 the congressman complained to Richard Chotard that "The attitude taken by the people down in OEO regarding this project in Mississippi positively astounds me…It amazes me and I am sure it does you that such agencies as this continue to do business in the same irresponsible, carefree don't-give-a-damn manner as was the case before the change in Administration."[110] Along with what Abernathy saw as governmental oversight and stupidity, he described the leaders of the MFE as "radicals" and even recalled Whitley's run against James Eastland.[111]

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[109] Ibid., 26.

[110] Thomas Abernathy to Richard Chotard, August 5, 1969, Mississippi Fish Equity, Mary Holms Junior College—OEO, 1968-1972 Folder, Box 181, Abernathy Papers.

[111] Thomas Abernathy to Richard Chotard, July 28, 1969, Mississippi Fish Equity, Mary Holms Junior College—OEO, 1968-1972 Folder, Box 181, Abernathy Papers.

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Exasperated with the OEO under the Nixon administration, which approved the loans to Whitley, Abernathy declared, “Even LBJ’s group refused to approve this application.” White local hostility extended into the scientific community. The scientists and researchers down the road at the land grant MSU also saw the MFE as a threat.

In 1969, although Mary Holmes College hosted the MFE the cooperative still signed on MSU’s Fisheries Department as a source of expertise and assistance. The department’s chair Dr. Dale Arner, was not happy. Arner saw the MFE and the historically black college in competition with MSU for funds on catfish research. In 1969, Abernathy and Arner exchanged correspondence on the MFE, and rung their hands as to why the land-grant did not received the OEO money. Despite much commiseration between the two men, the chair finally wrote back, “We felt if we couldn’t lick them we had better join them and try to help them whenever possible.”[112]

From 1969 to the MFE’s demise, Abernathy kept a watchful eye on the cooperative. When the cooperative failed to return their contract back to the MSU’s in a timely fashion, Abernathy took note. “I guess Reverend Whitley, the colored gentleman who will run this project, feels that he has enough support with the Nixon Administration just as he did with the Johnson Administration and that he will not have to sign any contracts with Mississippi State or anyone else,” he complained.[113] Abernathy’s criticism, a common line of thought among many white southerners, revealed hostility towards civil

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[112] Dale Arner to Thomas Abernathy, July 25, 1969, Mississippi Fish Equity, Mary Holms Junior College—OEO, 1968-1972 Folder, Box 181, Abernathy Papers.

[113] Thomas Abernathy to Richard Chotard, July 28, 1969, Mississippi Fish Equity, Mary Holms Junior College—OEO, 1968-1972 Folder, Box 181, Abernathy Papers.

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rights activity, the assumption that African Americans were in cahoots with the federal government, and that African Americans believed they were above the law.

Abernathy's hostility did not go unnoticed by Whitley or others associated with the cooperative. In 1971, Howard Gunn, the Director of Extension Services at Mary Holmes College and Okolona's National Association for the Advancement of Colored Peoples (NAACP) president, sent the OEO a new proposal for funding. Gunn expounded on the numerous problems confronting the MFE, including the cooperative's surrounding social environment. "Many of the people associated with the program have long 'records' with civil rights activities in Mississippi. Originally there was very little cooperation from the local establishment, and a fairly significant amount of open hostility," Gunn observed. Yet the hopeful NAACP president concluded, "The situation has improved substantially, but it still represents a problem that a normal business would not face."[114] Beyond the stresses caused by local whites, the cooperative confronted problems associated with the nascent catfish farming industry itself. The NAACP president realized both the social and economic risks.

Risk posed a great threat to the viability of the MFE. One significant risk revolved around the changing nature of catfish aquacultural science. "The experts keep changing the rules," Gunn complained in the renewal application. [115] He continued, "These industrial growing pains put a strain on catfish producers' capital resources and represent

[114] "Proposal for refunding of Mississippi Fish Equity, for Fiscal Year 1971-1972," 21, Mississippi Fish Equity, Mary Holms Junior College—OEO, 1968-1972 Folder, Box 181, Abernathy Papers.

[115] Ibid.

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a significant challenge to their managerial skills."[116] Those who could cushion the risks and strains from implementing new techniques had a better chance at surviving in the early tumultuous years of catfish farming in the South.

By 1971, it was clear to outsiders that the MFE was failing. That year, William Bost, director of the Mississippi Cooperative Extension Service, sent Congressman Abernathy a breakdown of each county in the MFE's jurisdiction. The breakdown revealed that the cooperative barely used MSU's expertise and extension's services.[117] The University decided not to renew its contract with the struggling cooperative. A couple of year later, an audit conducted by OEO found that the MFE did not record its budgets or accounts well, which lead the agency to believe that suspicious behavior like embezzlement led to the cooperative's demise. Abernathy too wrote, "Most of the money went into the personal pockets of those sponsoring the program." In 1972, Whitley step down as manager of the project.

Within three years, from 1969 to 1972, Whitley lost his catfish dreams. The MFE was an utter failure. Catfish farming became a pursuit for those with influence, access to loans and capital, access to expertise and knowledge, and the ability to adapt to new technologies. The MFE could not keep up with an industry in flux. The MFE's failure, however, is no less important in understanding the fate and trajectory of the farm-raised catfish industry and the decline of the black farmer. One year before the MFE shut down, Bernard Hefferman of *Fish Farming Industries* magazine observed that there was nothing

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[116] Ibid.

[117] William Bost to Thomas Abernathy, November 2, 1971, Mississippi Fish Equity, Mary Holms Junior College—OEO, 1968-1972 Folder, Box 181, Abernathy Papers.

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like it at the time. "Mississippi Fish Equity is unique in the catfish business—unique at a time when big companies, big ponds and big plants are fashionable in the industry," Hefferman observed.[118] As the failure of MFE demonstrated, the farmed catfish industry did not have room small farmers, especially small black farmers seeking economic justice. By the 1970s, catfish farming became more expensive, technical, and risky, and by the 1980s, it seemed that the only role African Americans played in the industry included being workers on the factory floor, cooks in kitchens, or consumers at restaurants and grocery stores.

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By the mid-1970s, much of the catfish industry vertically integrated and the shift from small enterprise to agribusiness—which was tethered to research and support from land-grant research complexes and marketing—was no an easy fish to fry. Farmers soon found that those who had access to capital and those who could cushion risk survived. Others sank. During this period it was vital for catfish farmers to "get big or get out," and expand their markets. Small low-income farmers could not cut it. Throughout the 1970s, it became clear to farmers that catfish aquaculture was not a poor man's pursuit. The pursuit no longer conserved agricultural, environmental, or human resources.

As catfish farming became a commercial pursuit in the United States, some American aquaculturists interested in poverty relief found their calling beyond their country's boarders. In 1970, with the support of an A.I.D. Institutional Grant from the United States Agency for International Development (USAID), Auburn University

[118] Hefferman, "Mississippi Catfish Cooperative Helps Those Who Help Themselves," 24.

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established the International Center for Aquaculture (ICA). In the 1961, the federal government established USAID a Cold War initiative that aimed to garner allegiance to the United States through various assistance programs around the globe. With USAID, the ICA sought to educate and assist those interested in aquaculture. The USAID project had a lot of similarities to the antecedents of commercial catfish farming. Especially aimed at development nations, the ICA taught folks the gospel of aquaculture and offered a new possible source of income and food for those who needed it. They just had to look to the waters. "Fish of the oceans, the streams, lakes, and man-made ponds are one of the important renewable natural resources of the world," Homer Swingle observed.[119] Through this program, Auburn became a leader in aquaculture in the American South and across the globe. As the southern land-grant spread the gospel of aquaculture, the growth of aquaculture in the United States grew too. By the 1970s, fish farming in the South began to loose its baby feathers and departed from its conservationist roots.

By the 1970s, it was evident that catfish farming was no for the poor or small farmer. 1974 marked a hallmark year of the nascent industry. That year, the USDA added fish as statistical category, which represented its status as In Mississippi between 1973 and 1977, catfish farms numbers dramatically decreased, from 563 farmers to 199, but size of each enterprise increased. During this time, the average catfish farm in Mississippi increased its acreage from 17.8 acres to 34.9 acres. A decade later, this progression continued.[120] Much like the story of commercial agriculture in the second half of the

[119] Homer Swingle, *The International Center for Aquaculture*, December 1970, 1.

[120] Hargreaves, "Channel Catfish Farming in Ponds: Lessons from a Maturing Industry," 505.

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twentieth century, farmers had to "get big or get out." The typical catfish farm success stories did not include small farmers or African American farmers.[121] And as the industry vertically integrated in the 1970s, it became even harder for smaller catfish farmers to make it. By the 1970s, as catfish farming became more capital-intensive, technologically driven, and oriented towards a commercial market, small farmers left catfish as they confronted the growing expenses and risks associated with the venture.

Within a near hundred-year period, the face of the catfish farming and the face of the catfish itself changed. In the 1880s, the initial goals of fish culturists were to conserve environmental, agricultural, and human resources, which all tied to food security and environmental quality. The goals of nineteenth century fish culturists diminished as the industry expanded, commercialized, and vertically integrated by the 1970s. One thing was for sure, however. Whether catfish culture provided food fish for hungry Americans or catfish farmers had to persuade Americans to eat catfish, the human palates and their bellies were always in fish farmers' minds.

When the industry commercialized and vertically integrated, expanding farmers' markets became more imperative. Stakeholders had to convince many more Americans both in and out of the South to eat farm-raised catfish. This task was particularly arduous because the wild catfish had quite the reputation as some of the earliest catfish admirers like David Starr Jordan and the earliest commercial farm-raised catfish processors like STRAL noted. From the white elite perspective, it was a food for poor folks struggling to survive. As the farm-raised catfish industry traveled an uneven risky road to financial

[121] There is one significant exception: an African American catfish farmer named Ed Scott from Mississippi.

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success, they had to overcome the wild catfish images that pervaded popular culture. But what exactly was that reputation, and why did the catfish have that reputation? And how did this reputation tie to consumption?

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CHAPTER III

KNOWING CATFISH: THE CULTURAL TRANSFORMATION

"It is possible that, aside from Moby Dick and the Loch Ness Monster, the most interesting and controversial of all the creatures that live in water is the catfish," Rufus Jarman wrote in a 1954 *Saturday Evening Post* article called "Don't Sneer at the Catfish."[1] Positive or negative, it seemed everyone had something to say about the whiskered creature. Highlighting the positive, Jarman focused on the fish's cultural significance to people living along the muddy Mississippi River and its tributaries that cut down the North American continent. He found folks whose love of eating the fish was only matched by their love of catching it. They would cast lines from a nearby bank, or waded in with boots to grab the fish by hand. Later, at picnics along the rivers, Jarman found hungry people hypnotized by the fragrance of stewed and fried catfish. Instead of filling their bellies with "corn-likker" these people opted for intoxication by fish, he claimed.

With the picnic aromas still freshly hanging in his prose, Jarman transitioned readers away from the wild-caught fish to a lesser-known and more recently evolved human and catfish interaction: Missourians' propagation of the animal. The state's Conservation Commission had begun growing the fish in the 1930s, and some of the

[1] Rufus Jarman, "Don't Sneer at the Catfish," *Saturday Evening Post*, August 21, 1954, 22.

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brood stock had become local celebrities. Scientists had taken three of the fish, which they named Gertie, Gus, and Old Pete, from the state's rivers and used them as progenitors—parents—for more catfish to be grown and released back into the "Show Me" state's streams. After the observation that the state's Conservation Commission had for years "tried to personalize bears, bass and bunnies," information director Dan Saults declared, "You don't have to personalize the catfish. They already have personality."[2] For decades, catfish behavior and its material body had converged with locals' understandings of region, environment and community and created a common public perception of the creature. Indeed, when Gertie, Gus, and Old Pete died, Missourians mourned.

The 1954 article that asked readers not to "sneer" at the fish demonstrated that it already had a controversial image. The catfish, unlike other animals, had to be explained and defended. This appreciation, an oddity that warranted an article worthy of the *Saturday Evening Post* is a testament to popular white attitudes of the fish before the rise of the catfish industry in the 1960s. These earlier ideas about the fish were, perhaps surprisingly, a contested topic. When folks like Sean Brock waxed lyrical about the fish and cited the ubiquity of the food across the diverse southern dining landscape, which also implied an ahistorical nature of the fish, this chapter challenges such perceptions. The catfish was anything but universally accepted or adored. This brief history of the catfish from the years after the Civil War to the mid twentieth century, before the channel catfish reigned as king in farm ponds, reveals how a diverse array of Americans both in

[2] Ibid., 78.

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and out of the South came to know the animal. Its latter transformation into a ubiquitous down-home food option across the country depends upon its cultural place before it became an industrially-farmed meat product.

From early American history to the mid-twentieth century, various groups of people in the United States came to view the animal through the most common ways of interacting with the fish: catching, touching, cooking, and eating. Contested attitudes over the fish stemmed from debates over the value of human and catfish interactions, and relied on the sensorial experiences of taste, touch, and sight. Views of the fish stemmed from both an individual's subjective sensorial experiences with the animal across disparate waterscapes and the fundamental aspects of the animal's existence: its behavior and its porous body's interaction with the environment. In other words, the individual's background—race, class, and gender along with the functions of the body's senses—indeed, the discourse between culture and corporeal—produced opinions on quality, flavor, access, and methods of extraction.

Despite divergent attitudes, Americans metaphorically and literally reeled in the catfish to their benefit. For the men and women who caught the fish and ate it, and for those who recoiled at the very idea, their actions had significant meaning. Divided thematically, this chapter will swim from the act of catching to eating, like a fighting catfish at the end of a line that tugs and wades through time as though it is water. For most of the history of human interaction with the fish, the first interaction people had was through extraction, and this chapter begins by examining how people through time have caught the fish, and what the meaning of these actions meant for catcher and observer. Another way people came to know the fish was through eating. The second lens of

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analysis examines that act. These historical actors' gastronomic interactions with the catfish demonstrate the connections between race and class to environment, access, and skill. Taken together, the actions of catching and eating cannot be easily separated. These themes will overlap. The analytical threads of catching and eating, essentially the acts of knowing the catfish through sensory experiences, can help the reader understand what kind of ideological changes accompanied the makeover of the muddy wild fish to a bland domesticated meat. While some Americans may not have caught or eaten the fish, as stories, poems, and other folklore revolved around the animals spread through culture, Americans came to know the fish through others' descriptions, experiences, and judgments.

The history of catfish in North America reaches back before European arrival. Southeastern Indians used nets, traps, trotlines, and poisons to catch catfish and other aquatic species.[3] Native Americans also told stories about the fish. The Menominee Indians in the Great Lakes region passed down stories of animals to their relatives.[4] Other indigenous groups have used the catfish as a name, which demonstrates its significance as a symbol. Despite the catfish's appearance in some indigenous cultures, however, American folklorist Jens Lund observed, "Catfish never achieved the importance to Native Americans that they later reached among some Whites and African Americans."[5]

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[3] Mart A. Stewart, *"What Nature Suffers to Groe": Life, Labor, and Landscape on the Georgia Coast, 1680-1920* (Athens: University of Georgia Press, 1996), 77.

[4] Walter James Hoffman, *The Menomini Indians* (Washington, D.C.: United States Government Printing Office, 1896), 214.

[5] "Catfish," *American Folklore: An Encyclopedia* (New York: Routledge, 1996), 270.

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Regardless of the degree to which the fish held cultural significance in some indigenous groups, it did provide some meaning, and of course, food.

Like indigenous peoples, Europeans found the fish to provide ample sustenance as they traveled through North America. During the sixteenth and seventeenth century, European explorers who traveled along the Mississippi River and through the Lower Mississippi Delta region wrote of their encounters with the monstrous fish and the bounty that its body provided. Elvas, a fellow traveler with Hernando De Soto, chronicled the environment and peoples that they met. The catfish's size warranted documentation. "There was a fish called 'bagre,' a third of which was head; and it had large spines like a sharp shoemakers awl at either side of its throat and along the sides…In the river, there were some of one hundred and one hundred and fifty pounds. Many of them were caught with the hook," wrote Elvas.[6] For Elvas and De Soto's posse the physical nature, its sheer size, created its value. Its immensity also meant that, at least for some species of catfish, it was relatively easy to catch, which proved to be a valuable asset to all fishermen in North America's wilderness.

This was the certainly the case for seventeenth century French travelers who trekked through Canada and enjoyed the fish as food because it was delectable, easy to catch, and enormous. Fathers Dollier and Galinee traveled with Robert Cavalier and Sieur de La Salle and wrote about their expedition. While the priests complained and looked down on native foodways they took note of the catfish. After becoming sick from indigenous cooking, the men sarcastically stated, "As to the matter of food, it is such as

[6] Crawford , *The Catfish Book*, 19-20.

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to cause all the books to be burned that cooks ever made, and themselves to be force to renounce their art. For one manages in the woods of Canada to fare well without bread, wine, salt, pepper, or any condiments."[7] Although the travelers did not enjoy native culinary expertise, they did observe the abundance of the St. Lawrence River. "It is true that fishing is pretty good…" they stated. The fishing was "pretty good" because the catfish was easy prey. "We had only to throw a line in the water to catch forty or fifty fish of the kind called here barbue," the French priests wrote. In observing the catfish's behavior as a boon to both the migratory and the impoverished they stated, "There is none like it in France. Travelers and poor people live on it very comfortably, for it can be eaten, and is very good cooked in water without sauce."[8] Which may suggest that the fish had robust flavor. In the wilderness these travelers could certainly sustain themselves when they had limited access to typical European foods. Further the priests observed that "poor people" lived off the fish, thereby demonstrating that like the travelers, the poor could survive on products of rivers alone rather than to buy or raise animals themselves. Living off the catfish meant that one did not have to own land, and they only needed access to rivers, ponds, and lakes. Nature provided sustenance for these Europeans, Euro-American travelers, and those who lived a subsistence lifestyle. Here the ease of catfish's capture made the animal an essential part of Europeans' survival in the region. Human reliance on the catfish extended into the culture of American slavery.

[7] Louise Phelps Kellogg, editor, *Early Narratives of the Northwest, 1634-1699* (New York: Charles Scribner's Sons, 1917), 174.

[8] Ibid.

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Through the peculiar institution of American slavery, catfishing and catfish consumption became closely entwined to blackness. In the colonial and antebellum era slavery, the fish's size and the relative ease of its capture, provided an ideal food to supplement poor whites and slaves' diets. The enslaved on plantations used trotlines, seines, and other traps to supplement their meager diets with fish and game.[9] The use of trotlines meant that the captor could leave the line unattended, check on it every few hours, and take whatever prey it caught. Catfish were especially easy to catch on trotlines. As noted food scholar Sam Bowers Hilliard observed, "These methods were particularly suitable for slaves, since their maintenance did not interfere materially with the slave's daily tasks."[10] Thus for hungry slaves, fish like catfish provided an easy and reliable food source. In the context of American slavery, the catfish became overtly racialized due to slaves' dependence on the animal.

The connection between slave subsistence and the catfish as an easy catch may have produced the connotations that it was *the* fish for African Americans. For example, historian U.B. Philips recounted a brief story of a planter named Z. Kingsley who lived and managed his plantation along the St. John's River in Florida in the early nineteenth century. During the War of 1812, Seminoles killed many of Kingsley's slaves and after the war he bought new slaves from both the domestic and international trade. Trouble arose when a newly purchased slave who Kingsley described as "a serpent" entered the

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[9] To read more about slave diets, see: Herbert Covey and Dwight Eisnach, *What The Slaves Ate: Recollections of African American Foods and Food Ways From The Slave Narratives* (New York : Greenwood Press, 2009).

[10] Sam Bowers. Hilliard, *Hog Meat and Hoecake; Food Supply in the Old South, 1840-1860* (Carbondale: Southern Illinois University Press, 1972), 86.

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plantation as a "negro preacher." The preacher "taught the sinfulness of dancing, fishing on Sundays and eating the catfish which had no scales." The catfish was not kosher. As a result, Kingsley observed that the enslaved "became poor, ragged, hungry and disconsolate…Finally, myself and the overseer became completely divested of all authority over the negroes[sic]…Severity had no effect; it only made it worse."[11] While demonstrating the tenuous and perpetual struggle for power between the enslaved and planters—a discourse that historians have long engaged—the enslaved food choices on Kingsley's plantation revealed the importance of catfish and subsistence fishing for their survival in slavery.

Historians and archaeologists fortify the assumptions that slaves ate the catfish aplenty, while planters did not. Archaeologist James Deetz's work on the Flowerdew Hundred Farm in Virginia found several catfish bones in the slave quarter sites. The archaeologist concluded that although he was unsure of how often slaves ate wild fish, "their sheer quantities tell us that hunting and fishing probably formed a significant portion of the slaves' daily activities and made a contribution to the diet."[12] Historian Christopher Morris reached similar conclusions. At the Saragossa Planation near Natchez, archaeologists found only one game animal, the rabbit, and no fish remains in the plantation house. The slave cabins, however, offered a different story. Here archaeologists found a significant quantity of fish bones, among them catfish, which

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[11] Ulrich Bonnell Phillips, *American Negro Slavery: A Survey of the Supply, Employment and Control of Negro Labor as Determined by the Plantation Regime* (Gloucester, MA: Peter Smith, 1959), 295.

[12] James Deetz, *Flowerdew Hundred: The Archaeology of a Virginia Plantation, 1619-1864* (Charlottesville: University of Virginia Press, 1995), 141.

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comprise of thirty-five percent of the fish remains. Anthropologists at the Nina Plantation on the west bank of the Mississippi River unearthed remnants of fish in both the plantation house and slave cabins, but found fishing gear and more fish remains in the latter.[13] Food consumption diverged between slaveholders and the enslaved, and catfish consumption reflected one aspect of these larger differences.

The catfish's connection to slaves was especially evident because some planters found the fish unfit to consume. Sarah Howell Hall with the Works Progress Administration (WPA) conducted an oral history with former slave Anna Parkes. Parks reflected on some culinary practices in slave communities. Parkes remembered, "Catfishes won't counted fittin' to set on de Jedges table, but us Negroes was 'lowed to eat all of 'em us wanted."[14] Parkes interview revealed a basic gastronomic culture of slavery. The enslaved ate catfish while the slaveholders did not. At the most basic level, how slaveholders and the enslaved value the natural world around them played out in their food choices.

Slaveholders' writings corroborate former slave Anne Parkes claims. During the Civil War, after fleeing his plantation to escape Union forces, wealthy planter Thomas Dabney wrote to his children while on the run. Dabney described the living conditions in Montgomery, Alabama. For his tastes the city offered little comfort and wretch conditions. Describing the lack of diversity in provisions he wrote, "It is a poor thing,

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[13] Christopher Morris, *The Big Muddy: An Environmental History of the Mississippi and Its Peoples from Hernando de Soto to Hurricane Katrina* (New York: Oxford University Press, 2012), 130-131.

[14] Herbert Covey and Dwight Eisnach, *What The Slaves Ate: Recollections of African American Foods and Food Ways From The Slave Narratives* (New York : Greenwood Press, 2009), 129.

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however, and monotonous, as I have fried beefsteak for each meal, with a pone of corn-bread and a potato or two. When I become tired of that I will vary it to pork or mutton." Despite his boredom, the planter would not dare add gastronomic variety through the local fish sources. He wrote, "The fish here are out of the question, nothing but buffalo, catfish, and jumpers. Such as these I cannot eat, unless reduced to extremity, of which there is no fear."[15] Even for Dabney, who lived beyond the comfort of his plantation, regarded catfish and other rough fish as only worth to eating if one was on the verge of starvation and had no other choice. Not even of the monotony and high prices of beef and pork, made the catfish desirable for the planter. Despite Dabney's aversions, not all white elite planters saw the fish as slave food or unfit for consumption.

Some planters relished it. An outdoor writer from Memphis, Nash Buckingham, who was born in 1880 and passed in 1971, recalled a salient childhood memory at a swanky French eatery. At a restaurant located on Court Street in the city where he was born and raised, Buckingham recalled an instance when a "huge, linen-suited Mississippi planter" entered the fine establishment. Comparing the planter to the race baiting eccentric demagogue Tom Heflin of Alabama, Buckingham noted, "this planter wore socks" and he wanted fish. The writer recalled that a male African American waiter asked, "'Scuse me, cap'n, but I ain't just sho what kine o'feesh you-all have, suh. We got choice pompanos, mackuls, tenner-loinner-trouts, white feesh, basses, crappies..." The planter stopped the waiter and exclaimed, "T'hell with all them fancy feesh!.. 'Boy, fetch

[15] Susan Dabney Smedes, *Memorials of a Southern Planter* (Baltimore: Cushings & Bailey, 1887), 226.

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me some cat!"[16] Jarman wrote about this memory in his *Saturday Evening Post* article to illustrate "the Southerner's attitude toward catfish, gastromically," which is to say that he thought all southerners loved the fish. Buckingham's memory can be taken another way, however. Buckingham's story illuminates both black and white perceptions of the fish. The outdoor writer remembered this particular story mostly because the planter wanted catfish, which may have been more surprising than not and maybe why he remembered this particular memory. The waiter, an African American man, also assumed that the planter would not eat catfish, or at least that was not a fish of choice of planter types. The waiter offered six different kinds of fish before the planter interrupted the waiter to demand catfish. The fact the memory was unforgettable, the fact that the waiter did not offer catfish as a first choice and instead "fancy feesh," demonstrates that the catfish was not seen as proper food for elite whites. Buckingham and the waiter must have been somewhat taken aback by the planters' views and overt proclamations for catfish, which reveal the class and racial connotations of the fish. But too, the examples of Dabney and the Memphis planter further illuminate the subjective nature of what is considered tasty and tasteful.

During the era of slavery in the United States, the distinction between black and white opinions on the catfish hinged on choice, need, and access to foods. Just as the enslaved came to intimately know the natural world as they toiled away working on and shaping the landscapes around them, they too came to know how to utilize the landscapes

[16] Jarman, "Don't Sneer at the Catfish," 23.

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for survival.[17] Beyond the shackles of slavery, however, the distinction between those who caught and ate the fish and those who did not carried on. This distinction between how people engaged and depended on the natural world continued to hinged on choice, access, and need.

Both white elite and non-elites fished, but white leisure-class fisherman decidedly distinguished themselves from the poor classes and those of color through their equipment and their attitudes towards nature.[18] In the nineteenth and early twentieth century "true sportsmen" were only middle and upper class white men. To have the means to fish for recreational purposes meant to be the ideal sport fisherman.[19] Means had a correlation to a fisherman's access to more sophisticated and expensive equipment. In the second half of the nineteenth century, new technologies in fishing gear, like poles and flies, deepened and hardened the stratification between the classes of fishermen. These new fishing technologies helped to differentiate status between elite, leisure fishing and non-elite subsistence fishing of non-whites and the lower class.[20] These elite fisherman viewed catfish as "rough fish" that only the poor and people of color deserved because the fish could be easily caught with trotlines and seines.[21] Gear offered just one

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[17] To read more about American slavery and environment, see: Mart A. Stewart, *"What Nature Suffers to Groe": Life, Labor, and Landscape on the Georgia Coast, 1680-1920* (Athens: University of Georgia Press, 1996); Mark Fiege, *The Republic of Nature: An Environmental History of the United States* (Seattle, WA: University of Washington Press, 2012);

[18] Jennifer Brown, "Trout Culture: An Environmental History of Fishing in the Rocky Mountain West, 1860 to 1975," PhD dissertation, Washington State University, 2012, 46.

[19] Giltner, *Hunting and Fishing in the New South*, 55.

[20] Brown, "Trout Culture," 49.

[21] Crawford, *The Catfish Book*, 20.

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significant demarcation between the elite and non-elite fisherman. Rather than trap fish, the fishing pole demonstrated the ability to catch rather than to trap, it demonstrated the time for recreation rather than trap, and most of all it embodied the ability to engage in a wider consumer culture.

Not all fish were created equal. During the nineteenth century, while the method of extraction and the gear used by fisherman created distinction between elite and poorer fisherman, the kinds of fish that fisherman sought matter too. Elite white fisherman wanted a fight. Although sportsmen prided themselves for their love of nature, they wanted a physical challenge. They wanted to feel the hurried, frantic pull on their poles as a fish at the end of the line was not just struggling to survive, but fighting against the fisherman. Elite whites tied masculinity, ability, and discernment and created a hierarchy of fishes. The mastery over nature, and thus the challenge, reaffirmed a true sportsman's ability and status.

White elite sportfisherman considered fishes that supposedly did not fight or were too easy to catch as lacking sport worthiness. White elite fisherman viewed easy catches as fit for children, women, and men with limited ability. The biggest difference between elite white fisherman's desire and other lower class fisherman, were their reasons for fishing. Although some poor fisherman, in some cases called "pot-hunters," fish for easier prey, like catfish, their rational was rooted in survival, commerce, and recreation.[22] For elite sportsmen, pot-hunting was not sport. As Scott Giltner points out, "The 'pot hunter' became the other great violate of sporting codes and the other great enemy of

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[22] Giltner, *Hunting and Fishing in the New South*, 45-77.

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sporting gentlemen." Poor fisherman differed from elite white fisherman because they depended on the nation's waterways for subsistence and recreation. Fishing for food and trade became a classed and racialized activity, and testament to African Americans and poor whites supposed inferiority. For the poor who depended on fish for food or trade, the easier the fish was to trap or catch, the better. Easy access to food meant survival, and for some this was a statement of independence and power. Yet these activities and the type of fish pot-hunters caught, like catfish, became associated with poor white and African American who looked to this supposedly easy prey, for survival. While feeding one's families and self took precedent, for white sportsmen, the connections between pot-hunting and catfish made the fish unworthy of white elite sportsmen's time.

Upper class fishermen proposed that they had a virtuous connection with nature, and by extension the non-elite did not. Historian John Reiger observed that by the mid-nineteenth century, with the advent of publications like *Field and Stream* and *Forest and Stream*, fisherman "looked upon themselves as members of fraternity with a well-defined code of conduct and thinking." The "true sportsmen" practiced "proper etiquette" on a trip, and gave "game a sporting chance, and possess[ed] an aesthetic appreciation of the whole environmental context of sport that included a commitment to its perpetuation."[23] Elite male sportsmen viewed their sport through a moralistic lens, and looked down on those who fish out of necessity. Brown argued that elite fishermen, "upheld angling as sport, looking down upon the market and subsistence fishing associated with lower

[23] John Reiger, *American Sportsmen and the Origins of Conservation Third Edition* (Corvallis, OR: Oregon State University Press, 2001), 3.

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classes, rural residents, immigrants, and other races."[24] The elite's moralistic outlook on fishing demonstrated both their privilege and their view that the poor and fishermen of color did not possess the ability or the means to appreciate nature. The act of fishing had much more power than killing and extracting animals. The fisherman's class, race, and gender, had social and economic implications demarcated what was considered genuine and legitimate forms of fishing, and what kinds of fish were legitimately sport or not.

In the mid-nineteenth century, white elites focused the fish's behavior and the sensation of catching the animal to affirmed their masculinity, dominance over nature, and their independence. White elite and leisure-class sportsmen observed and recognized the catfish's habits, it's behaviors, and decided that the catfish was just too easy to catch. While the sportsman wanted to enjoy nature, they also wanted the thrill of its submission. British novelist, Henry William Herbert known by his pen name as Frank Forester, concluded in his 1859 *Fish and Fishing*, that the channel catfish, "in truth, [offer] little sport to the angler." Observing the catfish's behavior, Forester wrote, "All the Cat-fish are greedy biters, and will take almost any animal substance as a bait." The catfish's greed made it easy prey and catfish, regardless of species, which offered no challenge to sportsmen argued Forester. Moreover, Forester criticized all catfish species behavior in their environments, which made them unworthy to sportsmen. The nature writer observed, "There is, so little difference in the appearance or habits of this filthy, mud-loving, hideous fish, that the descriptions of one species must serve for all…"[25] The fish's

[24] Brown, "Trout Culture," 24.

[25] Henry William Herbert (Frank Forester), *Fish and Fishing of the United States and British Provinces of North America* (New York: Excelsior Publishing House, 1859), 183.

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environment and "mud-loving" behavior caused the fish to be unfit for sportsmen, but more the animal did not offer much of a fight. The fish did not allow for the white male sportsman to reaffirm his masculinity, in particular this had a real sensation for the Forester. Despite acknowledging the catfish's power he observed, "After being hooked, however, although they are powerful fish, and pull hard for a while, it is yet a dead lug entirely, unlike the lively and fierce resistance of the Trouts [sic] and Pearches [sic],"[26] Forester observed. The sensation of touch through the catfish's struggle, just was not satisfactory for some elite fisherman. Because of this lack of physical struggle, the real lack of exertion by some fishermen, and what Forester anthropomorphized as "greed" rendered the catfish just too easy to capture. It wasn't worth the time of a true sportsman. Forester opinions were the common among white elites sportsmen.

Beyond, behavior, the popular white attitudes of the catfish also revolved around the ways in which the animal's interacted with its watery environments. Twain's experiences on the Big Muddy detailed in *Life on the Mississippi* reiterates the author's admiration for the river and fish, while exposing some negative views of the Mississippi River in association with cleanliness. Twain defended this river and its wildlife from naysayers like Captain Marryat, R.N. The captain observed, "There are no pleasing associations connected with the great common sewer of the Western America, which pours out its mud into the Mexican Gulf, polluting the clear blue sea for many miles beyond its mouth." He concluded, "It is a river of desolation; and instead of reminding you, like other beautiful rivers, of an angel which has descended for the benefit of man,

[26] Ibid.

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you imagine a devil, whose energies have been only overcome by the wonderful power of steam."[27] Along with these disparaging comments of the Big Muddy, Marryat commented on the wildlife too. "It contains the coarsest and most uneatable of fish, such as catfish and such genus, and, as you descend, its banks are occupied with the fetid alligator, while the panther basks at its edge in the cane-brakes, almost impervious to man." Marryat's descriptions of the river as uncontrollable and dirty—embodied in the animals that inhabited the waterways—greatly differed from Twain. Twain wrote that Marryat's sentiments had, "A value, though marred in the matter of statistics by inaccuracies; for the catfish is a plenty good enough fish for anybody, and there are no panthers that are 'impervious to man.'"[28] The fish was an important food for folks living along the river, and this work defended their food choices and the environments in which these folks lived. As Twain attempted to pull the Big Muddy and its wildlife up from depths of cesspool of American imaginations, the opinions of the fish continued to thrive.

Twain clearly admired the catfish, and he again wrote about the fish in one of his most beloved works. Despite his admiration for the fish, he reinforced popular white attitudes that the fish was meant to be caught by those with limited experience, intelligence, or even strength. Twain's Huckleberry Finn, of the eponymously titled work, caught the catfish on trotlines and by pole and hook. Finn and travel companion runaway slave Jim, caught a cat "as big as a man, being six foot two inches long, and weighed over two hundred pounds." The whiskered being was so large that rather than

[27] Mark Twain, *Life on the Mississippi* (New York: P.F. Collier & Son Company, 1917), 228.

[28] Ibid.

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fight it, the two just “set there and watched him rip and tear around till he drownded.”[29] For a moment Jim contemplated the worth of the colossus. Local folks could buy pieces of the fish’s flesh that was “as white as snow and makes a good fry.”[30] The insignificant episode revealed much about Twain’s own understanding of the fish’s body, its behaviors, and its value. For sure the fish was valuable as a source of food for the adventurers, as well as a possible source of income. Twain’s descriptions of a fish that could grow to monstrous proportions could awe readers, but he also reinforced stereotypes of those who would catch the fish. A child and a slave could catch it. They did not need skill, or even to a degree, strength. It was not at the fishermen’s expertise that caused the fish’s demise, but rather the cat’s own writhing and twisting. The catfish ostensibly killed himself.

Some elite whites did challenge these pervasive notions, however. Others sportsmen during the nineteenth and early twentieth century, found the cat to be an excellent angling fish. George Sears, also know by his penname, Nessmuk, was an outdoors life writer who admired the catfish.[31] In his work *Woodsman*, published in 1900, the outdoorsman recalled bumping into an accomplished sportsman named Thatcher. The man boastfully recounted the memory of catching the largest prized fish he had ever caught. Thatcher reminisced of the “well-conditioned salmon trout,” at twenty-eight

[29] Mark Twain, *Adventures of Huckleberry Finn* (New York: Harper and Brothers Publishers, 1884), 82

[30] Ibid.

[31] To read more on George Sears, see: Dan Brenan, ed. *Canoeing the Adirondacks with Nessmuk: The Adirondack Letters of George Washington Sears* (Blue Mountain Lake, NY: Adirondack Museum, 1993).

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pounds, and Sears quickly chastened the proud fisherman. Sears, questioned the quality of Thatcher's catch by comparing the salmon trout to another fish that many white fisherman found of questionable quality, the catfish. The woodsman argued that the "well-conditioned cattie or bullhead, caught in the same waters—were better…" Thatcher offended, incredulous, and disgusted asked, "Do you call the cattie a game fish?" Nessmuk affirmed a strong "yes," explaining, "I call any fish a game fish that is taken for sport with hook and line." He could not understand why folks were prejudice against the fish.[32] While both fisherman admired nature, Nessmuk saw all creatures as valuable. His admiration contributed to a different variety of masculinity. Rather than place value on the fight, the size, and taste of one's prey, an appreciation of nature and the act of capture was Nessmuk's idea of sportsmanship. The two men's interactions, demonstrate the dominant view of the catfish as unworthy sportsmen's time, and furthermore reinforced the contested nature of the fish among white fisherman. Nessmuk defended both the animal and as his reputation through his praise of the catfish. The woodsman's outlook likewise revealed a broader struggle among fish experts to legitimize the catfish as a sport animal.

Nessmuck also found the fish to be delightful. In 1893, William C. Harris a fish and angling expert wrote extensive and informative article on the animal for *The American Angler*. He wrote about the medical uses of the fish, as well as various species, and he also included correspondence between he and the "practical writer" Nessmuck. Nessmuck's "spirited defence [sic] of the catfish…not only in justice of the fish

[32] Nessmuck (George Sears), *Woodsmen Twelfth Edition* (New York: Forest and Stream Publishing Co., 1900), 64.

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maligned…" argued that "The channel cat is a bright, clean, sweet-tasting, slide-meated fish, and gamy as a lake trout; also strong and more enduring." Although the he supported the cat, he also observed that the environment had a great deal of influence on the quality of the flesh. "Depending a great deal, of course, on his surroundings; muddy water and soft bottoms affecting him in color and flavor, as it does all fish," he said.[33] Nessmuk's defense of the catfish as food too not only legitimized it as a fish worthy of sportsmens' bellies, but their time and energy as well.

Despite fish experts' praise of the fish, some perpetuated the notion that the catfish was filthy by illuminating its behavior. David Starr Jordan was avid supporter of the catfish species, despite espousing ambivalent views of the fish's image. Starr piece "The Aquatic Omnivore" which appeared in *Appleton's Popular Science Monthly* and *New York Times* described the fish as "an ancient type not yet fully made into a fish." Jordan painted the imagery of the fish, and it was typical. The fish, whiskered, small eyed, "no scales and no bright colors" had an appetite that was as "impartial as that of a goat." Jordan added that the fish would consume "a dead lamprey" to a "piece of tomato can is grateful to him."[34] The catfish habits as a dirty bottom feeder that bit at and ate anything, contributed to the negative notions of those who consumed and fished for the fish. Jordan encouragement came both from his knowledge of what he considered a fine food fish, the brown bullhead and the black bullhead, but also its abundance in the Schuylkill, Hudson, Delaware, and the Great Lakes. While its natural habitats included

[33] William C. Harris, "Fish and Fishing in America," *The American Angler*, April 1893, 248.

[34] David Starr Jordan, "The Aquatic Omnivore," *New York Times*, July 9, 1899, 19.

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these rivers, Jordan observed that the fish was introduced in Sacramento waterways and in the mid-1880s became a staple in the San Francisco markets.

Nessmuk and fish culturists, unlike many white leisure-class sportsmen, challenged the stereotypes of the fish as a bottom-feeding and easy-to-catch animal. They found it to be a rewarding, difficult, and exceptional fish to catch. For Lewis Lindsay Dyche, Kansas's Fish and Game Warden in the early twentieth century, the fish's behavior made for the perfect catch because it incited a strong *sensation* of excitement contrary to popular belief. The warden argued that the whiskered beast both struggled and fought, which made the act of catching the fish more rewarding and made the fishermen better men. According to Dyche, the stronger fight the fish gave, the better for the fisherman, in particular men. The channel catfish according to Dyche was just under that of the black bass in terms of sport fishing. He felt "safe in saying that no fish has ever given him more satisfaction and pleasure…. " Dyche clearly had an affinity for channel cats. In the process of writing his catfish entry for *Ponds, Pond Fish, and Pond Fish Culture* published in 1914, the fish and game warden's torso and extremities shook with excitement. "How it does make a fisherman's nerves tingle and his heart beat to land such a fish after playing it with bated breath for ten or fifteen minutes on a doubtful line! Here! Here! I have got the fever right now and want to go and fish for a big Channel [sic] cat!" he declared. To add fervor to his claims, and the challenge the stereotypes of the fish, he concluded, "Don't you want to come along?"[35] Dyche and Nessmuk liked the catfish, and

[35] Dyche, *Ponds, Pond Fish, and Pond Fish*, 80.

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they wanted others to readily jettison its common stereotypes. These men valorized the fish, which legitimatized their own recreational choices.

The gendered nature of recreational sport fishing culture is further illuminated in the value of various catfish species. Although sports fisherman like Forester and Thatcher looked at all catfish as unworthy catch, Dyche highlighted that bullhead catfish were an especially easy catch. His conclusions, imbedded with ideas of masculinity, revealed the connection between sport, ability, and age. "The bullhead is the one fish above all others that has gladdened the hearts of thousands of boys and amateur fishermen," wrote Dyche, which both demonstrated his appreciation for the fish, while also unwittingly demeaning the fish as good for children and amateurs to catch. [36] The warden's views, like those of the sportsmen, upheld the notion that the stronger fight a fish gave the more worthy it was to be classified as the prey for true sportsmen, not novices or children. Indeed, all catfish had a bad reputation as easy catch that fisherman like Dyche and Sears hoped to dispel.

For the most part, however, the catfish's reputation as easy prey remained intact for much for the nineteenth and twentieth century. Nearly a century after Dyche, one writer observed in the 1990s that, "catfish can be and are caught by people of both sexes and of all ages and socio-economic groups, both because the fish are wide-spread geographically and because they can be landed by a variety of methods."[37] Even the nickname, "Catfish," which some Americans prescribed to precocious plucky little boys

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[36] Ibid., 83.

[37] Crawford, *The Catfish Book*, 20.

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whose talents landed them many catfish, the animal conjures a lack of skill and masculinity. Age, gender, strength, and ability intersected at the designate what kinds of fish were worth the sportsman's time. Choices of fish, acts of extraction, and gear, these material objects and physical actions seem innocuous, but demonstrate the how pervasive ideas of whiteness, blackness, masculinity, femininity, dependence and independence affected the ways in which people interacted and came to know their natural world.

While some elite white sportsmen, implicitly connected race and fish and fishing to unsportsmanlike behavior, other explicitly did so. From the white elite perspective, black catfisherman were tasteless because they lacked the skill, capacity, and privilege to distinguish aesthetic qualities and disregard one source of sustenance for another. Further the chase, the hunt, and consumption of the catfish, for some, signified a poor economic state, desperation, racial inferiority, or ineptitude to catch real sport fish. For some elite sportsmen, the catfish was too easy to catch and the animal just did not provide a good fight. These sportsmen viewed the fish's behavior as greedy, opportunistic, and a dirty bottom feeder that not only caused the fish to be dirty and taste bad, but also again, offered the fisherman little actual sense of accomplishment. In the Jim Crow era, elite assumptions of catfish behavior and stereotypes of African Americans pivoted on a racialized logic that the two were made for each other. For the elite and middle class, the fish's behavior held racialized characteristics and symbolism.

As hunting and fishing provided much needed food for the enslaved in the antebellum era, former slaves and African Americans continued to subsist of the land in

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the post-emancipation era.[38] After the end of slavery, popular cultural depictions of the connections between African Americans and catfish is found in literature, plays, and scattered throughout newspapers. In the nineteenth and early twentieth century, although a diverse array of Americans consumed catfish, African Americans became more closely associated with the fish than any other group.[39]

In the eyes of middle class and elite whites an individual's skill, race, class, and gender intersected with the catfish's behavior to produce the characteristics of the perfect catfisherman: indolence and ineptitude."[40] Elites and the middle class viewed the catfish as easy prey lacking discerning behavior, which by extension reflected the skill of its fisherman. One writer Hamilton Jay from Florida argued that African Americans were particularly "accomplished in both" "extreme laziness and patience."[41] Jay compared African American male fisherman to mules and claimed that black men and their "patience of ignorance, or the ignorance of patience" had caused "long years of silence under slavery," where slaves were "usually happy and contented." In Jay's memory, the enslaved did not resist, slavery was a benevolent institution, and the enslaved did not try to throw off the shackles of slavery. For Jay, these memories of slavery justified why

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[38] For more information about hunting and fishing in the post emancipation era, see: Steven Hahn, "Hunting, Fishing, and Foraging: Common Rights and Class Relations in the Postbellum South," *Radical History Review* 1982, no. 26 (1982): 37-64; Scott E. Giltner, *Hunting and Fishing in the New South: Black Labor and White Leisure after the Civil War* (Baltimore, MD: Johns Hopkins University Press, 2008).

[39] Anthony Stanonis, "Just Like Mammy Used the Make: Foodways in the Jim Crow South," ed. Anthony Stanonis, *Dixie Emporium: Tourims, Foodways, and Consumer Culture in the American South* (Athens: University of Georgia Press, 2008), 220; Adrian Miller, *Soul Food: The Surprising Story of an American Cuisine One Plate at a Time* (Chapel Hill: University of North Carolina Press, 2013), 70-90.

[40] Hamilton Jay, "A Born Fisherman: Sambo's Success on the Wharves of Southern Seaports," *The Lawrence Gazette*, July 8, 1886.

[41] Ibid.

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African Americans were ideal catfishermen. Instead of a fight, Jay perceived African Americans in pursuit of the easiest possible way to live, whether in freedom or in slavery. In freedom, that meant the easiest possible way to procure food, and what Jay perceived to be the catfish. Jay's description of "Sambo," and the caricature's limited mental capacity and free time, caused his love to center "on the cat."[42] Instead of noting the role of subsistence hunting and fishing as providing much needed supplemental food and recreation, he *only* acknowledged the fish as a form of recreation, as fun, though not sport. In a disgusting, animalistic, and cartoon-like description, Jay wrote, "The sight of one of them makes his mouth open to its fullest extent, and the longing red tongue reach nearly around to the back of his ears. It calls up toothsome dishes to his exotic mind." Through disparaging, yet common white perceptions of African Americans, the writer concluded that the patience of the black fisherman was not a virtuous quality, but rather a disguise for laziness and blind contentedness. In the eyes of whites like Jay, the catfish was the perfect idle man's fish.

The writer twisted the animal's behavior and the pursuit as a way of underscoring the supposed ineptitude of African American fishermen. The fisherman could sleep and still the fish would bite, Jay claimed. Describing a hypothetical situation, Jay set a scene detailing that the black fishermen need not even a pole, just a string and some bait. He described, "So, tying the line to his big toe, which likes like the head of a loggerhead turtle, he falls over on his back and is soon fast asleep." As the black fisherman slept, the writer personifies the catfish who "is out for a stroll on the watery boulevard" and soon

[42] Ibid.

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"curiosity gets the better of him." Curiosity killed the catfish. The fisherman's skill and equipment was insignificant to catch his prey. For Jay, what is significant is the portrayal of lack of discernment in both the fish and fisherman. They both were tasteless. With the lack of skill needed to catch the fish, the author claimed, "Sambo is a born fisherman," and praised the ability of African American men to catch all sorts of fishes and turtles.

Others invalidated the catfish as a worthy catch due to the environments in which they lived. Essayist Jay's descriptions of black Floridian fishermen on the wharves of the St. John River characterized a depraved setting in which the environment, fish, and the men who took the bounty lacked discrimination. "This river at Jacksonville is a universal cesspool," Jay declared, and continued, "here are thrown all the garbage and offal of the market, residuum of restaurant and saloon, slop of boarding house, and here is the favorite grazing place of the catfish."[43] The writer implied that African American fisherman in Florida relished fishing for and catching his favorite foods, a gross catfish that relished on garbage, sewage, and the discarded scraps of other animals. Here the writer connected the animal to a degraded nature, and by extension, criticized African American fishing and culinary choices. Rather than recognize both the fish as a legitimate source of food and recreation, whites delegitimized and pathologized African Americans catfish consumption. Despite both African Americans and whites feasted on the cat, some whites advanced the idea that African Americans developed a close and distinct relationship with the animal due to the former's supposed laziness, ineptitude, and filth, and the latter's behavior.

[43] Ibid.

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Although some Americans saw the catfish's habits as major contributors to its distinct flavor and quality, fisheries experts believed otherwise. At the turn of the twentieth century, the bathrooms of the Fish Hawk along the St. Johns River in Florida garnered "a great attraction" due to the habits of "two principal cat-fishes of the region." By the Fish Hawk, "mud cats" and channel cats swarmed at "the mouths of sewers and other places, where they obtained refuse and offal." The observer noted that "This garbage-eating habit" was not just a habit of mud cats but "channel cats occasionally indulge their tastes in that direction." Though William Kendall once connected environment and habit to the catfish's taste, he quickly wrote off the habits of these garbage and sewage eating fish. "It is doubtful if the food, however foul, taints the fish in any way…" although that is what exactly why many critical Americans considered the fish as disgusting tasting it had a direct correlation to diet and habit. He compared that fish to other animals and defended the fish and its flavor by arguing, "this allusion to some apparently disgusting feeding habits can not consistently deter anyone who is fond of pork or chicken to forego the cat-fish solely on this account. Besides it is only occasionally and locally that these fish have access to such food."[44] Meaning pigs and chickens ate garbage, but they didn't taste bad, Kendall argued.

Due to the different species of catfish, varying environments, and differing habits in the wild, a diverse array of catfish flavors existed. And fisheries experts knew it. Yet on the many market catfish was just sold as a catfish, which meant that consumers who bought the product ate many different kinds and thus flavors. "In flavor and other edible

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[44] Kendall, "Habits of Some of the Commercial Cat-Fishes," 404.

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qualities the cat-fishes differ somewhat among themselves. As a rule the channel cats, especially the spotted (*Ictalurus punctatus* and *I. furcatus*), seem to possess more delectable qualities than the mud cats. This is possibly due to difference in habits and habitats," observed one ichthyologist.[45] The catfish's flavor was also dependent on the consumer. Kansas State Game Warden, Alva Clapp, noted that channel catfish were "fishy tasting" and, "I admit they are a little bit too fishy for my palate, but I like them."[46] But not all whites like the catfish.

White aversion of the catfish stemmed from the notion too that it was a trash fish. In a short piece by T.S. Slabber published in the *American Angler* in 1895, the author recollected the first time he caught catfish. Set sometime in the 1840s in Maryland, Slabber's story revolves around a hook he purchased a sockdolager, the fishing advice of an elderly African American man named Jacob Hardesty or "Uncle Jake," and the fish Slabber caught.[47] Of the fish Slabber caught, his story centered on the catfish. Slabber recollected his excitement towards his most of his catch, but was "disgusted with the bottom feeders" that he caught. He needed to do something with those catfish. With his unwavering prejudice towards the fish he observed, "I have never gotten over my aversion to them to this day." The young Slabber did not know what to do with his trash fish, and he wondered if Hardesty would like them. He clarified such assumptions noting, "I knew that negroes ate ''possums,' coons and ground hogs. The latter two they would

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[45] Ibid., 401.

[46] Clapp, "Some Experiments in Rearing Channel Catfish," 114.

[47] T.S. Slabber, "A Young Fisher, Uncle Jake, and the Sockdolager," *The American Angler*, December/January 1895-1896, 105.

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boil and then roast, but I did not know anything about catfish, as these were the first I ever caught." Slabber's conclusions pointed to his assumptions that Hardesty, like other African Americans ate what he might have considered trash animals, and thus the bottom feeding fish as well. Slabber surprised Hardesty with the catfish. With the surprise, Hardesty replied, "No, chile! don't [sic] you know dem channel cats is de best fish in dese waters; dey makes de best soup, when you biles 'em down, uv anything excusin' a snapper." Regardless of Hardesty's opinions, Slabber still didn't want the fish. "I made him take them, and the pleasure it gave him was part of my day's sport," Slabber concluded. Although Slabber considered Hardesty a friend, the young fisherman still considered the older African American's tastes as inferior and debased.

Despite both positive and negative attitudes towards catfish, its flesh still was not as marketable as other fish, which highlight some aversion towards the catfish. At the turn of the twentieth century, controversy on imitation salmon and sturgeon in the canned seafood industry. Fish shippers sold the cat as salmon and sturgeon. In 1901, a Louisiana fish shipper noted, "I have never shipped catfish North to be turned into canned salmon, but I do know beyond a doubt that great quantities of catfish are now being sent East as sturgeon. I now have one order alone for a carload of catfish from a big sturgeon dealer in the East, who will sell them as sturgeon. The catfish and sturgeon are similar in many respects, and the substitution is easy." Although the informant would not tell the *New York Times* the dealers' names, he observed that so many sturgeon dealers in the East deceived consumers that knowing only a few would make no difference in the bait and

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switch operation.[48] Selling catfish as something else, and replacing sturgeon with catfish, demonstrated both its cheapness and lack of marketability.

The catfish's lack of marketability was connected to its image as a food for African Americans and poor whites. North Carolinian, poet, journalist, and politician John Charles McNeill composed "The Catfish" that rendered the narrative voice through white perceptions of African American cadence and behavior.[49] Published in 1907, the alleged black narrator extoled the catfish as a plentiful, easy, greedy catch that one would have "no trouble 'bout de bait." The fisherman only had to ensure that a hook hit the water, and the catfish would bite. But more, the catfish "wid a pleasing look" was always "wid a smile" as the fisherman ripped out the bloody hook from the animal's still body. Not only did the fish eat anything, it wanted to be caught. McNeill's lighthearted poem suggests that the catfish was not a game fish, but rather a food fish that whites thought African Americans had a particular attraction towards and even suggested a sort of similarity with.

> "The Catfish"
> When de nights is warm en de moon is full,
> You kin ketch mo' cats dan you cares to pull.
> No trouble 'bout de bait;
> A grub 'ill do or a li'l' fat meat,
> Fer all he wants is supp'n' to eat,
> En he ain't no han' to wait
> Ner dar ain't no trouble 'bout luck wid him.
> You kin tie yo' line to a swingin' limb,
> En when you goes to look,
> You'll fin' dat limb a-dodgin' roun',

[48] "Another Use for Catfish," *New York Times*, January 5, 1901.

[49] For more information about John Charles McNeill, see: "John Charles McNeill," North Carolina Literary Hall of Fame RSS, accessed February 11, 2016, http://www.nclhof.org/inductees/1998-2/john-charles-mcneill/.

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En bubbles risin' en floatin' on down,
  En a catfish on yo' hook.
But I chooses to take a pole in mine
En git in a splotch er bright moonshine
  En fish dar wid my han';
I knows, den, when he hits his lick
(He swallows de hook; you needn' be quick),
  En I lets him show his man.
When I slings him out on de good dry grass,
He don't complain, but he's full er sass.
  He kicks a little while,
Den dlay dar, wid a pleasing look,
En, while I's rippin' out de hook,
  He takes it wid a smile.[50]

Whites stereotyped African Americans recreation as lazy and hedonistic. William C. Blades's compilation *Negro Poems, Melodies, Plantations Pieces, Camp Meeting Songs, Etc*. published in 1921 includes a merry depiction of a fish fry, a "The Catfish Fry" to be exact, which demonstrated these points exactly. This poem exemplifies many stereotypes whites held of African Americans foodways and its connections to recreation.

"The Catfish Fry"
The niggers down in Dixie
  They have a lot of fun,
With fishing in the rivers
  And sleeping in the sun;
And if you want a nigger
  To roll his nigger eye,
Just you tell that nigger
  Of a nigger catfish fry

That chicken and that pone cake
  And that melon on the vine,
Can never hold a candle
  To a catfish on a line;
And when the fire's waiting
  And the fat is spouting high,
There's bound to be a nigger

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[50] John Charles McNeill, "The Catfish," in *Lyrics from Cotton Land* (Charlotte: Stone and Barringer Co., 1907), 20-22.

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And a nigger catfish fry

The Lord he made the honey
  And the Lord he made the beem
And the Lord he made the catfish
  And he made the catfish free;
And there's nothing down in Dixie
  That will better please your eye,
Than to see a nigger fooling
  With a nigger catfish fry.[51]

From Blade's perspective, African American fishing was merely recreation, rather than both subsistence and pleasure. He set a scene next to a running river somewhere in "Dixies" and illustrated "niggers" having "a lot of fun," with "fishing in rivers," and napping under the sun. "There's nothing down in Dixie/ that will better please your eye," Blades wrote . The author compared the catfish to variety of southern foods often associated with African Americans despite white consumption and wrote, "That chicken and that pone cake/ And that melon on the vine,/ Can never hold a candle/ To a catfish on a line." For Blades, it is the only thing that snapped African Americans out of their supposed perpetual laziness. "A hundred or a dozen/ it is all the same to Mose,/ There is languor in his manner,/ There is languor in his clothes;/ But just you watch that nigger/ And just you watch his eye,/ When you see that nigger fooling/ With that nigger catfish fry," Blades wrote.[52] Blade's tone, drenched with a disregard for the serious, amplified the stereotype that African Americans were lazy, content, and only engaged in fun and recreation while one's livelihood hung in the balance. In the works by Blades, McNeill,

[51] William C. Blades, *Negro Poems, Melodies, Plantations Pieces, Camp Meeting Songs, Etc*. (Boston: The Gorham Press, 1921), 157.

[52] Ibid., 157.

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and Jay, African Americans were depicted as opportunistic, lazy, and in some cases, dirty.[53]

Indeed food consumption, subsistence, and recreation held political and social power. In this case, catfishing blurred the lines between recreation and subsistence. While elite white sportsmen at the time cast off the cat as a sport fish, as "The Catfish Fry" demonstrates it was, in fact, sport for some. But more important that nature provided the food for the poor, which was more important than entertaining. The amused Blades wrote, "The Lord he made the honey/ And the Lord he made the bee,/ And the Lord he made the catfish/And he made the catfish free…"[54] Rather than highlight the resourcefulness of the fishermen to subsist off the environments where they lived in or near, Blades's flippant attitude towards black recreation and subsistence fishing reflected broader white attitudes. "The Catfish Fry" like Jay and McNeill demonstrates whites' associations between African Americans and the fish. Most significant is that whites made light of the resourcefulness of African American who took advantage of the catfish's behavior and nature's bounty. The animal's physiology and behavioral patterns set apart some lower class and non-whites who consumed, fished, and celebrated the cat from prejudiced white elites.

While catfish may have provided food and recreation for African Americans, it also provided image of safety and security to follow. In the Jim Crow era, for some African Americans "staying in place" also meant survival. The cat's cultural significance

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[53] Ibid., 157.

[54] Ibid., 161.

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reached beyond food, and for some the animal represented resistance, power, and survival. Charlie Holcombe, a tobacco farmer in North Carolina remembered the tragic death of his son Willie. Sometime between 1890 and 1917, Willie graduated from North Carolina Agriculture and Technical College in Greensboro where he excelled in academics. After coming home to Johnson County, Willie reluctantly helped his father on the family's farm. Willie's attitude towards farming and the region deflated his father's sense of pride in farming. Holcombe remembered when Willie declared that there, "was no future for a black man with an education" where they lived. Soon after an altercation at a local warehouse, Willie ended up dead. When Holcombe arrived at the scene, he saw a group of white men looking down at Willie's bloody lifeless body. "I knowed he was dead de minute I seed him…Right den I knowed dey wan't no use to ax for no he'p and dat I was just a poor nigger in trouble."[55] Holcombe took Willie's body, dressed him in his best suit, and buried him.

Holcombe remembered his grandfather's code of survival after recalling the tragic memory of his son. "A catfish a lot like a nigger," he told Holcombe. "As long as he is in his mudhole he is all right, but when he gits out he is in for a passel of trouble. You 'member dat, and you won't have no trouble wid folks when you grows up,"[56] the old weathered man told Holcombe. Holcombe understood that his son was a transgressor of place and whites' perceptions of blackness. "I got to thinkin' 'bout what gran'pappy said 'bout de catfish, and I knowed dat was de trouble wid Willie. He had stepped outen his

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[55] Leon Litwack, *Trouble in Mind: Southerners in the Age of Jim Crow* (New York: Knopf Doubleday Publishing Group, 2010), 6.

[56] Ibid., 6.

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place when he got dat eddycation," Holcombe said of his son. He continued, "If I'd kept him here on de farm he woulda been all right. Niggers has got to l'arn dat day ain't like white folks, and never will be, and no amount o' eddycation can make 'em be, and dat when dey gits outen dere place dere is gonna be trouble."[57] Holcombe illustrated an oppressive world of crushing defeat, sadness, and hopeless, where African Americans had little room for mobility. Despite these circumstances, Holcombe and his grandfather found a means to endure. Through the likeness of the catfish, they found a way, although extremely narrow, to resist Jim Crow. The catfish offered significant forms of survival, whether as energy or as a model of performance in the Jim Crow era. For Holcombe catfish behavior signaled a code of survival, but for some whites this association between the catfish and blackness went much further.

Symbolic cannibalization and white ingestion of black bodies was a common theme during the Jim Crow era. Foods like licorice were nicknamed "tar babies" or "nigger babies," and the canned oyster brand "Nigger Head" could be purchased in grocery stores. This symbolic white cannibalism of black bodies, as Anthony Stanonis argues, "reinforced the racial hierarchy in which whites figuratively consumed blacks."[58] The objectification of black bodies did not end at food and whites used the term "nigger" to describe other objects. [59] From objects as diverse as plants to fishing poles, the were called the pejorative name in conjunction with other terms. For instance Black Eyed

[57] Ibid., 6.

[58] Stanonis, "Just Like Mammy Used the Make: Foodways in the Jim Crow South," 220.

[59] For more examples, see: Frederic G. Cassidy, ed., *Dictionary of American Regional English Vol. III* (Cambridge: Belknap Press of Harvard University Press, 1996), 788-801.

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Susans, a yellow flower, was nicknamed “nigger tits,” which demonstrated the objectification and normalization of sexual violence against African American women. Objects like the steam power arm of a sawmill that replaced workers in the southern lumber industry was commonly called “steam nigger.”[60] The nomenclature of the objects embodied white supremacist and racialized logic. Steam niggers for instance, replaced the hard labor of black workers. Like objects, so too were depositions called nigger with another descriptive terms. The term “nigger rich,” for instance, meant “foolishly or vulgarly extravagant,” which exemplifies the racialization of negative qualities like being a spendthrift.[61] These pervasive pejorative nicknames of the era of Jim Crow, demonstrated that what whites not only objectified African Americans, but that the qualities associated with African Americans, like animalism, filth, laziness, deceitfulness, and other debased characteristics became embedded in American lexicon and perpetuated and reinforced white supremacy and naturalized and reified racial hierarchy.

White perceptions of blackness pervaded American culture in the Jim Crow era, and like objects and dispositions, whites used the pejorative term for animals. Whites likened African Americans to animals through stereotypes of violence, idiocy, or hedonism. For instance after Reconstruction, white fears of the maintaining control African Americans proliferated into the “black as beast image” that justified the violent

[60] William Powell Jones, *The Tribe of Black Ulysses: African American Workers in the Jim Crow South* (Urbana: University of Illinois Press, 2005), 93.

[61] Cassidy, *Dictionary of American Regional English Vol. III*, 799.

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protection of white female bodies and purity.[62] Other white depictions, less overtly violent, portrayed African Americans as grotesque, ugly, lazy, slow, filthy, and opportunistic. These stereotypes of African Americans as animalistic, for instance, fleshed out into nicknames for various animals, and the term "nigger" along with the taxonomic category of a species pervaded the American English lexicon. These connections between race and animals are apparent in catfish nicknames, which reinforced white perceptions that African Americans had an affinity towards the fish, and that the fish was likened to African American behavior and even phonotypical traits.[63]

Suggesting a physical resemblance to African Americans, scientists and white fisherman nicknamed one species of catfish the "Niggerlip," (*Ictalurus anguilla*). In the early nineteenth century, ichthyologists discovered the *Ictalurus anguilla* and they were marveled with curiosity. The fish was "somewhat elusive to the student of fishes," but "so evidently different in appearance from any other catfish as to be readily recognizable to the uninitiated."[64] The biologists found a lack of evidence on the differences between the *punctatus* and *anguilla*, but attempted to create categories of the species through physical differentiation. The researchers described the fish as "blackish without spots, and the skin is conspicuously slimy in contrast to the usually clean integument of the channel catfish." The phenotypical traits of the fish both different in color and "slimy"

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[62] For a more extensive investigation of blackness and animality, see: Michael Lundblad, *The Birth of the Jungle: Animality in Progressive-Era U.S. Literature and Culture* (New York: Oxford University Press, 2013), 122-138.

[63] J. Stanley Lemons, "Black Stereotypes as Reflected in Popular Culture, 1880-1920," *American Quarterly* 29, no.1 (Spring 1977): 104.

[64] Robert E. Coker, "Studies of Common Fishes of the Mississippi River at Keokuk," Bulletin of the Bureau of Fisheries 45, no.1 (1928): 177

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versus "clean" texture, prompted scientists to describe the differences between the two fish's flesh. Robert Coker observed that the niggerlip was "regarded as very inferior to that of the highly esteemed channel catfish…" Regardless of the scientists noted distinctions, local markets sold, "catfish as 'catfish' without distinction of price."[65] Ironically demonstrating that the racialization of the catfish did not matter on the marketplace. Scientists attempts to create new taxonomic categories in concern with the "niggerlip" demonstrate that cultural and social scripts affect scientific analysis. By the 1940s, scientists and fisherman finally realized that the racialized and disparagingly named fish was, in fact, a channel catfish.[66] Fisherman of Florida's Okeechobee Lake likewise called channel catfish that weighted five to thirty pounds as "nigger babies."[67] Although origin stories of the catfish's name refers to the animal's resemblance in both physical appearance and the supposed "purring" sound the fish makes when near the surface of water, it's nicknames conjured the animalization of blackness. The references to blackness, animals, and animals for food consumption highlighted both a racial order that pervaded a white perspective, but also demonstrated the ideological cannibalism of blackness, a prominent theme in the Jim Crow era.

Yet the catfish did not always have a connection to racialized notions of behavior or nature. Before the industrial farmed fish, catfish consumption was not solely relegated to poor whites or black fisherman in the South. Regional preferences depended on local

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[65] Ibid., 178.

[66] Jens Lund, *Flatheads and Spooneys: Fishing for a Living in the Ohio River Valley* (Lexington: University Press of Kentucky, 1995), 25.

[67] Alfred Jackson Hanna and Kathryn Abbey Hanna, *Lake Okeechobee: Wellspring of the Everglades* (Indianapolis: Bobbs-Merrill Company Publishers: 1948), 22.

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cultures and environments across the United States. But finding these lines can leave the researcher with messy, confusing, and contradictory results. Regardless of regional preferences, often consumers understood their habits as idiosyncratic, and at times special. Popular in the nineteenth and early twentieth century, and today a long forgotten foodways, white Philadelphians consumed "catfish and waffles" with pride. One reporter traveled to the iconic river to report and observe the culinary oddity. "Thousands of catfish are eaten along the river every week. Catfish and waffles support us," one hotel owner along the Schuylkill River declared in the early twentieth century. The curious reporter, possibly fishing for a specific answer, inquired the hotel owner, "What kind of people eat catfish?" "All kinds," the owner answered. Knowing that his answer was shocking, he explained, "But our custom comes principally from people who own their carriages and drive out… It is the fashion in this town to eat catfish," he observed. Rich people ate catfish and waffles in Philadelphia.

The landlord justified what he understood others would find a bizarre food choice by noting that people had various and subjective preferences. He observed, "It is funny how people's tastes differ." Calling off other regional fish preferences, the landlord observed that the England the porgy, a small fish, was ground up as bait for mackerel fisherman, and no one "down East" would consider it food. On the catfish he asked, "And then where do people ever eat catfish except here?" The he provided an unsurprising answer. "Further south the colored folks eat them because they are cheap. No one else will touch one." But in Philly, "You will find the best people in town devouring the

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catfish and waffles if you only stay around long enough."[68] Despite the consumption of catfish by wealthy Philadelphians, the ideas that catfish and blackness was not lost on them. In some ways, this may have been a way of "slumming" as the landlord often referred to eating catfish as "fashionable."

Others were astounded by Philadelphians gastronomic preference. In 1889, one politician from Missouri observed, "The Missourian who visits the magnificent Fairmount park of Philadelphia is amused to read the signs on the little restaurants by the roadside, 'catfish and waffles,' showing the dish to be a delicacy in the estimation of the inhabitants of the Quaker City."[69] Others observed this culinary tradition and praised it as badge of honor and preference that made catfish consumers—at least the white and elite ones—special. In 1930, Cornelius Weygandt, a literature professor at the University of Pennsylvania wrote *The Wissahickon Hills* that recounted the history of Philadelphia's Fairmont Park located in the heart of Schuylkill River country. . From Weygandt's white elite perspective catfish were greatly appreciated in the North and not the South,. The professor referred to white elite southerners as the main culprits in the distain towards the fish. He observed, "All this to-do over catfish is little likely to awaken sympathy south of Mason and Dixon's line, where many people think of catfish only as poor folk's food. In New England, though, horned pout are spoken of almost reverentially."[70] Philadelphia's

[68] "Catfish and Waffles: A Philadelphia Dish That is Fashionable and, Better Still, Brain Food," *Warren Sunday Mirror*, August 10, 1884.

[69] James Cox, *Missouri at the World's Fair. An Official Catalogue of the Resources of the State. Issued by the World's Fair Commission of Missouri,* edited by James Cox (St. Louis, 1893), 67.

[70] Cornelius Weygandt, *The Wissahickon Hills: Memories of Leisure Hours Out of Doors in an Old Countryside* (Philadelphia: University of Pennsylvania Press, 1930), 19.

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catfish and waffles revealed a little known aspect of the fish's history. White elite catfish and waffles eaters understood the stigma towards the fish, but proudly consumed the dish as a fashionable cuisine. Eating catfish and waffles made them special and unique. Regardless of catfish's haute appeal, the City of Brotherly Love's craze for catfish and waffles died off by the 1920s, most likely due to the pollution of the Schuylkill River.

Although some foodways scholars highlight how food brought southerners together, others argue that what people ate, the ways people ate, and how they thought about what they ate reveal the social and class divisions of the region's history.[71] An examination of cookbooks in the Jim Crow era reveals that although both white and black southerners may have consumed the fish, it was arguably a more relevant source of food for African Americans and poor whites. An examination of cookbooks from this era aimed at the white elites suggests that catfish rarely made their plates. Furthermore, when catfish recipes do appear in cookbooks from this era, the methods of preparation and the number or recipes compared to other seafood suggests that consumption of catfish was erratic, regionally specific, and rarer than compared to after the raise of the industrial fish. Moreover, the presence and absence of the catfish in cookbooks reveal that this animal was part of the larger culture of exclusion and socioeconomic stratification of the era. The catfish's presence and thus by extension, its behavior, demonstrate that some saw the fish amenable for subsistence.

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[71] For more on foodways and racial and class divisions in the South, see: Marcie Ferris Cohen, *The Edible South: The Power of Food and the Making of an American Region* (Chapel Hill: University of North Carolina Press, 2014); Elizabeth Englehardt, *A Mess of Greens: Southern Gender and Southern Food* (Athens: University of Georgia Press, 2011); Psyche A. Williams-Forson, *Building Houses Out of Chicken Legs: Black Women, Food, and Power* (Chapel Hill: University of North Carolina Press, 2006).

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Despite some differing view like the Philadelphia example, elite whites' perceptions that catfish were somehow naturally connected to the African Americans were reinforced by other sensory experiences, including the smell of cooking catfish. In the early twentieth century, smell constructed racial difference. For some whites and African Americans, smells emitted from cooking catfish and became associated with black bodies and black spaces. [72] In 1916, whites in Union City, Georgia groaned and complained as these smells blanketed the town. As one local newsman reported, workers had pumped water, and anything else including a catfish, from a local lake into a water tank on the Atlanta Birmingham and Atlantic rail line. The reporter wondered in amazement at how "quickly…every one of the dusky hue in this community," discovered the water tank's catch and pulled "buckets of catfish" out and hauled them away. The newspaper claimed that the catfish created "near panic" and "the negroes of this community are hilariously happy today and the odor of fried catfish has enveloped the town." The story even intimated that Union City African Americans had quit their jobs to spend the day "frying and eating catfish." Likewise the report declared, "Never before were fewer Negroes to be seen, nor in Black Hollow at Vicksburg." Significantly, not only did so many of the town's black populace congregate to gather and cook the fish, but never "was the smell of fried catfish ever as strong."[73] After the black section of town filled their bellies with catfish, the reporter speaking for the white community

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[72] For more on the senses and the construction of race, see: Mark M. Smith, *How Race is Made: Slavery, Segregation, and the Senses* (Chapel Hill: University of North Carolina Press, 2006).

[73] "Huge Catfish Supply Creates Near Panic: Negro Population Quit Work to Devour Fish Which Had Filled Water Tank," *The Atlanta Constitution*, February 27, 1916, 1.

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noted, "The whites are longing for the time when the negroes will return to work and the odor of fried catfish shall disappear."[74] In both scenarios, the smells of fried catfish represented recreation and blackness. In these cases of whites reinforced stereotypes of African Americans as lazy, hedonistic, and always seeking fun. For white observers, rather than regard the smells of catfish as a reminder of nourishment or entrepreneurship, the smells represented black inferiority.

Whites connected the smell of cooking and black spaces in other places in the South. In the 1920s, Cecil Cook commented on the smells of Catfish Alley in Columbus, Mississippi, which was the heart of the city's African Americans business district and was a thriving social space. For Cook the space was defined by the presences of business owned by African Americans, and by a distinct olfactory experience. Cook observed that Catfish Alley was, " 'nigger heaven' for the town and plantation Negroes. The smell of overfried [sic] catfish and the hickory smoke smell of barbecued porkchops [sic] usually permeated the air in the area."[75] Whites equated the cooking smells of frying catfish to other black spaces in the United States.

In 1940, a trivial but enlightening newsworthy controversy hit the front page of the Greenville (Mississippi) *Delta Democrat-Times*. Two "Yankee" Republican congressmen, James Oliver of Maine and Francis D. Culkin of New York, challenged the "citizenry of Memphis' famed Beale Street." The two white politicians made slanderous claims against the catfish. Beale Street's residents, which was home to "stompin' blues

[74] Ibid.

[75] Smith, *How Race is Made,* 80; Ted Ownby, *American Dreams in Mississippi: Consumers, Poverty & Culture, 1830-1998* (Chapel Hill: University of North Carolina Press, 1999), 96.

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and pungent cookery" stuck up for "their beloved Mississippi River catfish." Although it is unclear how a Beale Street cook named Walter Culpepper, whom the Mississippi paper described as the"dusky…self-styled Catfish King," came to defend the food, he told the paper, "Those gentlemen never ate no Mississippi cats or they wouldn't be talkin' like that." At some point, the politicians ate catfish from the Potomac River at a committee hearing in Washington. Although Oliver found the fish to be "tasty," he concluded that the fish "resembled what we call in Maine the hornpout—which we always throw away as inedible." Culpepper who owned a cafe that "darkskinned Beale Street packs daily in a quest of fragrant pig-snoots, chittlin's, barabecue [sic]—and catfish, of course was aggrieved by this." Culpepper admitted he was ignorant of what a hornpout (a bullhead catfish) was, but observed, "If they throw 'em away, they sure ain't sweet and white like our Mississippi river catfish. Men'd be crazy to throw those away." Although ignorant of bullhead catfish flavor Culpepper was familiar with the supposed distinctions between the Potomac and Mississippi catfish. "Boy, they sure ain't anything alike. 'Em cats up there eat mud and the meat's dark. Mississippi river cats eat sand and water—that's why they so pretty and white," he claimed. George Lee an African American insurance salesman and respected member of the Beale Street community echoed Culpepper's arguments and challenged the white politicians to visit Beale Street "and get a whiff of the atmosphere thick with the pungent odor of frying catfish." He claimed, "they'd go back to Congress with words of high praise."[76]

[76] B.R. Young, "Beale Street Cook Defends Catfish Against Congressmen," *The Delta Democrat-Times*, March 22, 1940.

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The inconsequential catfish fracas and the ways in which the reporter—likely a white southerner—conveyed the story reveal some views of the fish during the era of Jim Crow. First the catfish—an innocuous topic—allowed Culpepper and Lee, two African American men, to challenge white politicians, however harmlessly, and promote a sense of pride in the Beale Street community, commerce, and culture. The scuffle also reveals connection between animals to environment and pride in place. Culpepper noted the differences between the Potomac and Mississippi rivers based on the catfish's behavior and its affects on the animal's flesh. Not only did Culpepper connect the cat's food consumption habits to flavor and quality of its meat, but to the animal's actual flesh hue. With racial undertones abound Culpepper's catfish tasted good and were "pretty and white," whereas the Potomac's catfish's meat was "dark." The article demonstrates another salient point, however, which were the connections between blackness to "pungent cookery" of catfish in the sensorial landscape of "stompin blues" and the bustling street. Although Culpepper and Lee challenged white notions of catfish, the article demonstrated white connections between blackness and the fish.

Regardless of the criticisms from whites, the idea of African American foodways and a semi-subsistence lifestyle provided hope in times of need. During the Second World War, for example, Americans rationed their foods so that essential supplies could be sent to Allies troops around the globe. As a result some whites looked to what they considered African Americans foodways as an economical and shrewd way to live. In 1942, one "Food for Victory" campaign published in a Missourian newspaper heralded the catfish as a viable and "tasty" alternative to meat. Americans wishing to support their nation could look to a semi-subsistence lifestyle. "Speaking of local markets, how about

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the river that runs through so many towns," the newspaper suggested. Georgette Harvey, an African American actress known for her role in *Porgy and Bess* provided a catfish stew recipe and suggested that "it might solved the meat shortage problem right now."[77] The inclusion of the recipe demonstrated that some Missourians would not have considered catfish as an alternative, and that Harvey's inclusion reinforced notions that catfish were particularly connected to African Americans. What is noteworthy is the newspaper implicitly suggested is that African American lifestyles could be an exemplar of frugality and survival. In this case, the stereotypes and notions of blackness and the catfish could help save the nation.

When the white Americans did not need the catfish to survive, some just did not acknowledge its existence or importance to local foodways. For example, catfish could be found in some white southern cookbooks, but they were few and far between. In Elizabeth Hedgecock Sparks' *North Carolina and Old Salem Cookery*, that claimed that "No state tops North Carolina when it comes to seafood" due to its extensive coastline, and plentiful waterscapes like rivers, streams, and sounds, the author described all food fish and seafood in the state. For most of Sparks's short descriptions she included average weights and sizes of various water creatures. For a few, Sparks included an extensive description, one of which included the catfish. "A cat in a good part of North Carolina refers neither to the hep or the tom variety. A cat is short for catfish…" Sparks observed. Although the fish was ubiquitous, she noted, "Not a fish widely used but one greatly

[77] "Catfish Stew Makes Tasty Meat Substitute," *The Chillicothe Constitution Tribune*, September 4, 1942, 5.

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favor by some."[78] Despite these claims, Sparks's cookbook included several catfish stew recipes, one of which a home demonstration agent of Perquimans County, North Carolina provided. Regardless of the presence of these recipes, Sparks's short observations underscore the notion that the catfish was not a universally beloved food that some contemporary southern cookbooks suggest.

This may have been because catfish was widely seen as a food that was consumed outdoors when fishing. Catfish was limited to occasional consumption, when one could fry a big batch outdoors, or for those who ate their catch on the spot. In late nineteenth and early twentieth century cookbooks aimed at the middle class home cooks who most likely purchased fish and seafood ingredients at the store, included recipes that call for shrimp, oysters, crabs, cod, and other seafood. These cookbooks rarely had catfish recipes. Outliers, like *Belle's Bayou Bounty Recipes*, included one catfish recipe and a general fish fry recipe, which could use any number of fish including catfish. The catfish recipe, "Pine Bark Catfish Stew" included the note, "So named for it is usually prepared on river or bayou banks where the fish are caught and pine bark us used to build a very quick, hot fire and the wood smoke will permeate the contents."[79] The connection between recreation and catfish cuisine demonstrated a popular view that the fish was fit for eating outside the home. It was not something one brought inside.

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[78] Elizabeth Hedgecock Sparks, *North Carolina and Old Salem Cookery* (Durham, NC: Seeman Printery, Inc., 1955), 92.

[79] Mirabelle Freeland Guidry, *Belle's Bayou Bounty Recipes* (Morgan City, LA: self published, 1969), 53.

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By the 1960s and the 1970s, the early years of the industrial farm-raised catfish, the connections between the fish and African Americans was apparent through an examination of cookbooks. Soul food cookbooks celebrated African American empowerment through food. Some soul food cookbooks reflected upon the importance of fish and the catfish to the development of African Americans foodways and a culture of survival and resistance during the Jim Crow era. Rather than express shame, these books—unlike nineteenth and early twentieth century white elite perceptions—celebrated African American resourceful through subsistence. The cookbooks undermined the persistent white view that catfishing was only a source of recreation and the negative connotation that it was an easy food source. Rather than view ease and recreation as a harmful, soul food cookbooks demonstrated how fishing provided an outlet to escape worldly troubles, helped create community, and fulfilled a basic function: it was a source of food. These were empowering qualities, not something to be viewed as idiotic or debased. Though Ruth Gaskins, author of *A Good Heart and a Light Hand,* did not mention catfish she wrote, "Because fish could be caught easily, it was and is a popular item in Negro kitchens. Our favorites are butterfish, porgies, and haddock…A Friday fish dinner consists of fried fish, greens, cole slaw and cornbread."[80] Others asserted similar claims. "Fresh fish, which could be caught in the rivers and lakes of the rural South, became an important part of the Black man's diet," Mary Jackson and Lelia Wishart

[80] Ruth L. Gaskins, *A Good Heart and a Light Hand: Ruth L. Gaskins' Collection of Traditional Negro Recipes* (Alexandria, VA: Turnpike Press, 1968), 26.

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wrote in the *Integrated Cookbook*.[81] Unlike the white perspective, the ease of catching fish was a boon for those who engaged in subsistence fishing.

The connections of catfish and the particulars of African Americans poverty was is illuminated Princess Pamela's *Soul Food Cookbook* published in 1969. Her cookbook included poems sprinkled throughout to reinforce and praise the importance of particular ingredients. Her cookbook claimed, "all through the thirties we ate/ so much catfish/ we jus' natcherly purred when/ we sit down to meal time."[82] Playing on the name of the fish, as well as to explain the amounts of catfish African Americans ate, Princess Pamela implied that they almost became the animal themselves. Along with a catfish stew recipe, Princess Pamela included a few verses on the importance of the fish in guarding folks from starvation. "She sure could cook up a potful/ that woman/ But there wasn't that much for her/ to cook/ an' one time I saw her cryin'/ her tears runnin' down in the/ catfish soup," read the poem.[83] The author extolled the resourcefulness of the cook and her ability to overcome adversity. She had little choice but to deal with shortages. She had little else but to eat the soup.

The connection between race and class and subsistence, was apparent by the lack of research conducted on catfish before the 1970s. The negative images of the catfish and those who caught them were so pervasive in fisheries management culture that there was a dearth of information and studies on them until the 1970s. The lack of studies

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[81] Mary Jackson and Lelia Wishart, *The Integrated Cookbook: Or the Soul of Good Cooking* (Chicago: Johnson Publishing Company, 1971), 26.

[82] Princess Pamela, *Soul Food Cookbook* (New York: New American Library/ Signet Book, 1969), 88.

[83] Ibid., 90.

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conducted on catfishing and catfisherman until the last couple of decades demonstrate class biases of fisheries management researchers who often overlooked the importance of catfish as a source of recreation and food for lower class fisherman. Allan D. Gill's 1980 thesis on catfisherman in Kansas broke the long silence on catfishing as a source of recreation and even subsistence. According to Gill, "The cultural influence of the elites in fishing is still common in today's fishing. This cultural perspective has traditionally treated catfishes as an inferior species of fish primarily because of its feeding habits (i.e., a bottom feeder)."[84] Throughout the twentieth century, the cultural weight of trout, bass, and other sport fish, had an impact on the management of catfishes, although there were a few like Lewis Lindsay Dyche and David Starr Jordan who clearly felt something between ambivalence and downright admiration for the animal.

An examination of the wild catfish offers insight into the varying attitudes that catfish farmers, beginning in the 1960s and beyond, had to contend with and work to oust from the American consciousness. Among leisure-class fisherman, scientists', African Americans', and white elites', opinions of the fish varied from adoration to disgust, from love to hate. Indeed, the catfish held irrefutable appeal in American folklore, literature, recreation, and foodways. During a long period, from the era of early travelers on the North American continent to the 1960s, before the rise of the farm-raised cat, Americans both in and out of the South eulogized the catfish as monster, model, and a sort of aquatic manna giving sustenance to the hungry. They looked to the environment, the physiology,

[84] Allan D. Gill, "The Social Circle of Catfisherman: A Contribution to the Sociology of Fishing," Master's thesis, Kansas State University, 1980, 3.

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and behavior of the fish—its nature—as the baseline to judge the animal as worthy for consumption, recreation, and artificial propagation.

For the industry to shed the negative white attitudes toward the catfish, the stakeholders of the farm-raised catfish industry needed to make the farmed catfish marketable. They looked to flavor. A jump from a brief cultural history of the wild muddy cat to a history of the flavor of the domesticated bland cat demonstrates why the industry needed to ensure the farmed catfish tasted nothing like its wild brother, that the farm pond version shed its dirty natural environment and the flavors it created. Yet as the farmed catfish industry grew in the 1970s, the very nature of the fish and its alternative aquatic farm environment posed new obstacles for farm-raised catfish stakeholders.

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CHAPTER IV

TASTELESS TESTING: ENVIRONMENT, TECHNOLOGY, AND THE SEARCH FOR FLAVOR

On a fall day in 1968, the two of the three owners of STRAL, Joe Glover and Chester Stephens smelled something weird as they hauled a few hundred pounds of catfish from a farmer's pond and loaded them into water tanks on the back of their truck.[1] Stephens turned to Glover and asked, "Say, Joe, what do you suppose that smell is?" It was hard for the men to tell if the odor was coming from the water, the nearby farm fields, or the fish themselves. Undeterred by the smell, they drove the crops the fifty miles from that farm near Selma, Alabama to their cramped processing facility in Greensboro, Alabama where their employees skinned, dismembered, and froze the fish. STRAL's moderate success had caught the attention of businesses like the Quaker Oats Company, which wanted a piece of the growing catfish market. In fact, on the very day that Glover and Stephens returned from Selma with that stinky load, a Quaker Oats representative was at the plant to take a sample of STRAL catfish. That night, Stephen received an alarming phone call from the Quaker Oats representative. "They're the smelliest fish in the world! I just cooked some up for dinner, and my whole house smells like it's been fumigated! We can't eat them!" Stephens drove to the processing plant,

[1] I use multiple terms for the farm-raised catfish, including: catfish, cat, fish, pond-raised catfish, farmed catfish, farmed fish, and crop.

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picked up a box of fish from the same Selma batch, and cooked it up. The Quaker Oats rep was right. The fish tasted terrible.[2]

Recalling the odor they had encountered at the Selma pond, STRAL's owners suspected that the meat's taint had come from the pond itself. After all, none of the fish from other ponds had such aromas when prepared. Stephens, True, and Glover decided to instill a new policy. They would only accept crops from ponds that they sampled first. But their decision caused turmoil among suppliers: some catfish farmers simply did not believe that their fish tasted bad, or more precisely, all parties could not agree on what bad taste was. When STRAL rejected catfish they deemed awful, they had to fight angry farmers. "What do you mean?" one farmer furiously demanded in late 1968, "There's nothing wrong with these fish. They're good! Why, we've eaten them ourselves!" In that case, and after some persuasion, the farmer convinced Stephens to come back and taste the fish after a week or so. Still, Stephens concluded that the catfish tasted objectionable. Convinced that his own palate was just as good a judge for tasty or displeasing flavors, the farmer cooked up a fish and ate it. "Now, that's good fish. Nothing wrong with those fish!" By rejecting the fish, Stephens had snubbed not only the man's crop, but his sensibilities as well. Finally, after a few weeks and heavy rains, Stephens tested the farmer's fish crops again. Much to Stephens surprise and delight, that time, the "musty flavor was gone."[3]

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[22]Karin Perez, *Fishing For Gold: The Story of Alabama's Catfish Industry* (Tuscaloosa: Fire Ant Press, 2006). 73.

[3] Ibid.

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What does this tale of stinky catfish reveal? Certainly Glover and Stephens's interactions with the Quaker Oats representative and the disgruntled catfish farmer demonstrate how these off-flavors hindered industry growth. But more, the STRAL owners who were bent on mass-production and marketing, realized that the catfish's flavors were elusive, subjective, ephemeral, and at times, idiosyncratic. Between the 1960s to the present, as various stakeholders contested their subjective gustatory and olfactory sensory experiences with an unruly catfish, debates arose over just what blandness should taste like. Would it be a non-fishy flesh that tasted more like land-based and grain-fed livestock? Could catfish be engineered to taste like chicken rather than seafood, and was that good for farmers, processers, and consumers? While it was easy to label muddy flavors as bad, the pursuit of an ideal taste and smell was not something that only happened in a lab or kitchen. As Stephens pulled cats from the odiferous Alabama pond, environmental contingencies of the pond and the biological imperatives of living organisms were at the heart of the creation of flavors. Nature had a say, as the material reality of the fish and the waters consistently "fought back."[4] No farmer controlled the animal out in nature, but as researchers realized, growers could barely and inconsistently control the fish or the pond water in the context of a farm pond.

This chapter traces the sensorial transformation that accompanied the material transformation of the wild muddy catfish to a bland domesticated crop. From the 1960s to the present, farmers', scientists', and professional taste testers' bodies and senses were

[4] William Boyd, "Making Meat: Science, Technology, and American Poultry Production," *Technology and Culture* 42, no. 4 (October 2001): 631-664. Boyd's article references Rachel Carson to conjure imagery of how the animal body "fights back" against antibiotics and intensive agriculture.

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the primary tools in the standardization and categorization of the constructed and contested farm-raised catfish flavor. These stakeholders studied the causes of off-flavors, tried to develop technologies to inhibit the muddy flavors in the crop, and attempted to cultivate mechanisms to guarantee a consistent agricultural product. Researchers, farmers, and processors tried to impress their ideal catfish taste and smell upon the fish's flesh, but in the process argued over just what the optimal taste and smell should be. Due to the nature of aquacultural environments, the animal, and stakeholders' contested sensory experiences, the search for a mild domesticated catfish flavor was a difficult task to achieve. Moreover, it demonstrates the long history of engineering a specific catfish flavor, a blander, "whiter" flavor that allowed for an ideological makeover of the catfish that began when the industry grew after the 1960s. A sensorial and material makeover had to happen first, and the process was fraught with contingency, uncertainty, and conflict.

Much like interaction between the pond environment and the farmed cat, the sensory and environmental history of flavor in the farm-raised catfish industry is chaotic. To understand the connections between farmed catfish as living materials and the pond environment, and then the interactions between farmers, researchers, and processors and the fish crops, this chapter thematically weaves together three loose chronologies. The chapter begins with a brief account of the risks associated with pond-raised industrially-produced fish: bad flavor. It lays out the power and influence of the catfish as a biological material in the enclosed watery spaces that encapsulated a world in pandemonium. As STRAL showed, some farmers did not believe that their catfish were bad tasting, and the second theme of this chapter explores the problem of defining what farmers, processors,

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and researchers considered on and off-flavor. Lastly, this chapter explores scientific authority through categorization and standardization. As the stakeholders established definitions for off-flavor, they encountered another problem: precision. Meaning processors and researchers found that as they search for the causes of bad tasting fish and as they defined good and bad flavors, they too had to figure out the parameters of off-flavor acceptability. Despite the occasional muddy meat let loose on consumer plates, the industry succeeded in ensuring that their brand of bland, non-fishy meat entered American mouths. Ultimately science lent value and authority the sensory experiences of some stakeholders over those of others as they all searched for the perfect farm-raised catfish. Taken together, this chapter explores the contested and difficult sensorial catfish makeover.

In the late 1960s, as catfish farming commercialized, the issue of flavor quality was inconsequential. As the industry grew, however, the risk associated with quality increased. Early fish farmers thought good taste was a given, that it was a natural aspect of the fish. As long as they fed their fish grain based feeds as they fed their other livestock, producers figured that the catfish would take on the blandness of the feed's bland wheat, corn, or rice ingredients. Yet as farmers gained more experience they came to understand that feed alone could not create the perfect cat. They quickly found that enclosing the animal in a pond and feeding it pelleted food did not always produce the same taste in the animal's flesh. The domesticated spaces did not suddenly lend farmers total control over the animal as an agricultural material.

In some cases during the early commercial years of the late 1960s, grocery stores occasionally and unknowingly sold muddy flavored fish to the producer or consumer.

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Luckily for the producers, consumers were already used to muddy tasting catfish, and were indifferent to the "improved" taste of pond-raised fish. .[5] Notwithstanding, farmers continued to claim that their crop had a different flavor profile from its wild counterpart. In some instances, this was hardly the case. More vital, if and when non-traditional consumers of the fish ate off-flavor crops, the popular notions that catfish were dirty bottom feeders were reinforced.[6] As the industry grew, and farmers needed to expand their markets beyond small pockets of catfish consumption across the United States, flavor became a pressing issue.

Stakeholders could not allow muddy, bad tasting catfish on the market. The industry needed to create value in what had long been considered a trash fish, and they found it in flavor. In 1971, the editor for a catfish farming newspaper declared, "quality and flavor—these are the keys to the industry's future growth. Farm-raised catfish must be sold on the basis that it is an agricultural product—produced with the same care, expertise and quality of other livestock. The quality and flavor, of course, distinguish the farm-raised product from river catfish and imported catfish." He continued, "Never-never for one moment should they be sacrificed."[7] In the early years, some farmers and boosters suggested a name change rather than improve the image of the fish, its flavor, or its quality. "Don't change the name of the catfish to try to make it more appealing to the consuming public" one booster claimed, stating it was as "American as the flag and apple

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[5] Perez, *Fishing For Gold,* 210.

[6] Ibid.

[7] "An Editorial: The Pitfalls of Off-Flavor," *The Catfish Farmer News Leader* 2, no. 3 (November 1971): 2.

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pie."[8] The booster encouraged farmers that the crop could be successfully merchandised. Years later, in 1990, catfish farmer Donald Vansandt discussed the transformation of the fish in connection to flavor as well. He remembered that, "Years ago, people tagged the catfish as a scavenger and a lot of people didn't like catfish." He further noted that river cats had a strong odor while pond-raised catfish had "no odor."[9] Indeed, a new and improved farmed flavor was one of the industry's primary marketing strategies.

Processors like STRAL and researchers at land-grants, more than farmers, determined that a consistently bland taste and its correlation to perceptions of cleanliness and technological mastery over nature were vital elements to the growth of the farm-raised catfish industry. Stakeholders knew that taste was important, because why would consumers want to eat something that taste like mud, or tasted dirty, why would they consume something that stakeholders viewed as tasting bad? Especially because catfish had an image of being dirty bottom feeders consumers want to eat a fish that conjured notions of poverty. That was no easy goal to achieve.

In the late 1960s, off-flavor became a pressing issue as farmers intensified their farming techniques and tried to expand their markets beyond traditional consumers. Taste—the ultimate experience of masticating and swallowing catfish in homes and restaurants across the country—was bound not just in the immediate sensation on the tongue, but in eaters' brains as well. Taste was inextricably linked to a diner's

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[8] "Catfish: As American as the Flag, Apple Pie," *The Catfish Farmer News Leader* 1, no. 10 (June 1971): 3.

[9] Lamar James, "Vansandt Hits the Road in Promotion of Catfish," *The Catfish Journal*, July 1990, vol. IV, no. 11, 19

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understanding of the environment in which the fish grew. It was imperative, then, that farmers put a product on the market that was free of flavors that American shoppers associated with the wild fish's diet, behaviors, and environments. Muddy and earthy essences in farmed catfish, Roy Grizzell observed, could tarnish the "reputation of a successful fish farmer," and had the potential to give the "industry a black eye" if sold to the assuming shopper.[10] As one industry booster claimed in 1971, "there is no doubt that producers and processors as a whole are already aware of the problem and its ramifications. Occasionally, however, a bad lot of catfish slips through, and the fine image that so many people are working so hard to improve, is tarnished."[11] When the industry marketed the crop as wholly different in taste from the wild counterparts, customers expected just that, a fish that was "sweet [and] non-fishy."[12] The alleged difference between the wild and the industrially controlled fish was so great that to describe the fish as non-fishy seemed proper. But more, this desired flavor and supposedly positive characteristic of farm catfish, demonstrated that the industry wanted to sell their crop to a part of the American public that did not like seafood and preferred land-based animal flesh. By the early 1970s, Americans, particularly white middle class Americans, consumed very little seafood as compared to people of color and the lower classes. With a non-fishy fish, the catfish industry was ready to tap into the white middle and upper class market.

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[10] Roy Grizzell, "Off-Flavors in Catfish," *The Catfish Farmer*, Summer 1969, 10.

[11] "An Editorial: The Pitfalls of Off-Flavor," 2.

[12] Ibid, 10.

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Wild catfish flavors embody the environments and waters in which fishermen catch their prey. These flavors vary depending on water quality, like levels of pollution and turbidity, and what kinds of foods like insects, other fish, and plant matter that the catfish has consumed. Early catfish culturists realized that catfish in nature did not have a consistent flavor profile. "Catfish obtained from the wild sometimes possess a strong odor or taste reflecting the environment from which they were taken," researchers claimed in 1970.[13] The farm pond also enclosed water, plant life, and insects that could create the same wild gustatory qualities. Thus, the pond's ecology created a great deal of uncertainty for the farmer and his crop's quality. The pond environment is tremendously chaotic. Weather, water, chemical contamination, bacteria, and algae could brew a perfect storm for the production of repugnant tasting flesh. The presence of algae could cause undesirable flavors, particularly in the summer months. Algae quickly grow in warm waters and release odorous compounds, particularly geosmin and 2-methylisoborneal (MIB). Thus, the weather was crucial to taste. Warmth and photosynthesis produced by the sun, could potentially generate undesirable flavors in the fish. But more, a breeze, a gust, what typically cuts the density of summer heat, can also cause off-flavor. Agricultural chemicals, especially from nearby spraying operations, may drift over ponds and cause undesirable gustatory attributes in the crop. All these contributing factors to off-flavor can mingle in a catfish pond environment, and intensify the off-flavors through the very nature of the pond itself as an enclosed space.

[13] W. Guthrie Perry and James Avault, "In Brackish Water: Catfish Culture Studies in Louisiana," *The Catfish Farmer*, March-April 1970, 22.

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Taste is not just an environmental product, however. The catfish as an animal, not just the pond environment that they lived in but what they interacted with as a permeable living vessel, caused flavor problems. The catfish's decisions, its survival mechanism, and its body worked against farmers and processors' pursuit for a clean, tasteless meat. Channel cats are piscivory, which means that they eat other fish. They are omnivorous, too. For fishermen this meant that the catfish was an easy catch, with effective types of bait easily found. But the animal's indiscriminate appetite worked both for and against farmers. For one, the fish's proclivity towards pelleted food made it easy to rear in ponds. But channel catfish also devoured rotten matter. Catfish stocks nibbling away on their own dead could take on an off-flavor. As early as 1973, scientists further confirmed, against their own presumptions, "that channel catfish will consume significant quantities of filamentous algae."[14] The farmed fish's unruly, multifarious decisions posed one major source of off-flavor but another was its body. Its gills and gastrointestinal tract could dash farmers' and processors' dreams of a bland non-fishy flesh. As a catfish's digestive tract processes algae and metabolizes the plant matter into energy, off-flavor producing compounds congregate into the fish's muscular tissue, its meat. Fat also stores undesirable flavor compounds. The fatter the cat, the longer it retained any off-flavor it had acquired. Because processors and researchers wanted a mild non-fishy flavor, they fought against the animal, the environment, and mechanics of the aquaculture itself. Since the late 1960s, the enclosed chaotic pond environment has baffled scientists.

[14] Robert T. Lovell and Lewis Sackey, "Absorption by Channel Catfish of Earthy-Musty Flavor Compounds Synthesized by Cultures of Blue-Green Algae," *Transactions of the American Fisheries Society* 102, no. 4 (1973): 777.

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Farmers, processors, and researchers were not the only people to be concerned over muddy flavor in foods or water. For centuries, dating back to the 16th century, scientists, consumers, and writers, have discussed "earthy" or "muddy" fish.[15] Muddy and earthy fish are nothing new, but researchers did not study the causes of these flavors until the early twentieth century. But before researchers focused on fish, they smelled and tasted water. In the second half of the nineteenth century, researchers in Europe and the United States tried to pinpoint the causes of off-flavors in municipal water supplies, which was linked to the larger problems of pollution. In 1855, for instance, E.N. Horsford and C.T. Jackson pursued the causes of a mysterious cucumber odor in Boston's water. The two men never found the roots for the greenish smell. Despite an overall lack of studies on etiological agents of off-flavors in municipal waters, within twenty years of Horsford and Jackson's study, it became "common knowledge" that algae caused many of the off-flavors in water.[16] In the twentieth century, American and European investigators began to examine undesirable tastes in fish.[17] These studies demonstrate that the researchers found muddy, earthy flavors in fish unacceptable.

This long fascination with muddy flavor fish studies demonstrates that at least by some, mostly elite white men, muddy flavor was considered an unappealing and tainted characteristic in fish. In 1910, Frenchman L. Leger conducted the first study on muddy flavors in rainbow trout. He blamed them on *Oscillatoria tenuis,* a cyanobacterium,

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[15] Craig S. Tucker, "Off-Flavor Problems in Aquaculture," *Reviews in Fisheries Science*, 8 (2000): 45-88, 48.

[16] Per-Edvin Persson, "19th Century and Early 20th Century Studies on Aquatic Off-Flavours—A Historical Review," *Water Science Technology* 31(1995): 9-13.

[17] Ibid., 10.

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produced by blue-green algae. Some twenty years later, Englishman A.C. Thaysen published a study examining why "the richest salmon rivers of the kingdom had been found contaminated with an 'earthy' taint." What perplexed the researcher more was that the fish's intestines "were free of mud and were, in fact, practically empty."[18] Thaysen found actinomycetes produced "earthy" pungent odors in salmon. Actinomycetes are filamentous bacteria that nurture in warm ponds and forage on uneaten feed and waste produced by fish. Actinomycetes are soluble in water, ether, and alcohol, are "volatile in steam," and in a concentrated form, create "a brown amorphous material with a penetrating manurial odour."[19] In small doses actinomycetes produced a soil-like smell and taste. It took researchers decades to pinpoint the specific compounds that produced the smell.

In the 1960s, a few scientists at Rutgers University's Waksman Institute of Microbiology researched how actinomycetes tainted water. These microbiologists discovered the particular compounds that haunted catfish farmers in the years to come. In the 1965 study, Nancy N. Gerber and H.A. Lechevalier isolated geosmin, a colorless, and highly odorous neutral oil, from various actinomycetes. Gerber and Lechevalier used a fairly new method of the era, gas chromatography that separated substances through vaporization, to isolate the substance. They named geosmin for the Greek root "ge," or earth, and "osem," or odor because it produced a soil-like smell and flavor.[20] Other

[18] A.C. Thaysen, "The Origin of an Earthy or Muddy Taint in Fish," *Annuals of Applied Biology* 23, no.1 (1936): 100.

[19] Ibid, 103.

[20] N.N. Gerber and H.A. Lechevalier, "Geosmin, an Earthy-Smelling Substance Isolated from Actinomycetes," *Applied Microbiology* 13, no. 6 (November 1965): 935.

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scientists found that a variety of actinomycetes, other than the subjects that Gerber and Lechevalier examined, also produce the odorous oil.[21] Researchers found that blue-green algae like *S. muscorum* and *Oscillatoria tenuis* produced the viscous substance as well. A few years later, the Rutgers researchers stumbled another compound, 2-methylisoborneal (MIB) produced camphorous, musty odors.[22] Despite extensive studies on the causes of off-flavors, researchers did not chemically pinpoint geosmin as an etiological agent of undesirable flavors in catfish until 1982.

Initially catfish farmers and processors were not sure what caused bad flavors in fish. Some blamed the algae, other blamed the pond environment, and some just blamed factors post-pond removal. No one knew exactly caused the displeasing flavors, they just knew that it was erratic, but occurred more in the summer. Heat, whether in the pond causing algae blooms or heat in a post-mortem state may have caused the off-flavor. Rather than contribute bad flavors to the catfish itself, some researchers tied food safety to flavor. In the early 1970s, the Georgia Extension Service demonstrates the extent to which the pungent tastes perplexed researchers. Georgia food scientist and extension agent, George Schuyler wrote, "To Hold Your Customers, Hold that Catfish Flavor."[23] The pamphlet connected off-flavor to bacterial growth in butchered catfish. Although rancidity of a butchered fish would cause an unpleasant taste, it was not the same as off-

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[21] Richard T. Lovell, "Flavor Problems in Fish Culture," In FAO Technical Conference on Aquaculture, Kyoto (Japan), 26 May 1976, 459.

[22] Nancy N. Gerber, "A Volatile Metabolite of Actinomycetes, 2-Methylisoborneol," *The Journal of Antibiotics* 22, no. 10 (October 1969): 508-509.

[23] George Schuyler, "To Hold Your Customers, Hold that Catfish Flavor," June 1971, Wildlife and Fisheries Cooperative Extension Service Collection, Box 2, *Catfish Processor's Workshop 1972*, Congressional Political Research Center (CPRC), Mississippi State University Libraries (MSUL).

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flavor. “[The fish] may look all right. They may smell all right,” Schuyler cautioned, “But they won’t taste right when they are cooked.”[24] Schuyler believed that expedient delivery of iced, clean catfish kept “real catfish flavor” and kept off-flavor at bay. The pamphlet reveals the ubiquity of the problem of off-flavored catfish as well as the lack of knowledge concerning the actual triggers. While food technologists purported that refrigeration was the key to reducing the musty taste, scientists concluded that the waters were the culprits.

As farm-raising the fish grew in popularity in the late 1960s, land-grant researchers chased the mysteries of off-flavor in farmed catfish. By 1971, Auburn University spearheaded the investigations in the causes of off-flavor. Alabama’s land-grant was home to the prolific Dr. Richard “Tom” Lovell, whom catfish farmers and industry boosters honored as the “chief investigator of the ‘whatdunit’ of the underwater world.”[25] The elimination of objectionable flavors and aromas posed an entirely new set of issues that even Lovell did not initially understand. Lovell’s speculation on the causes of off-flavor stemmed from his experience with pond culture and his knowledge of the literature on off-flavor in carp, salmon, and trout. With a limited understanding, Lovell and others stood by powerless. In a survey conducted from 1971 to 1972, the Auburn researcher learned that roughly half of all catfish farmers in Alabama produced some sort of off-flavored catfish.[26] Certain sectors of the farm-raised catfish industry, processors

[24] Ibid.

[25] “Off Flavor,” *The Catfish Farmer*, November 1971, 8.

[26] Robert T. Lovell, “Fight Against Off-Flavors Inches Ahead,” *Fish Farming Industries* (February 1972): 24.

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and researchers, in particular, were more concerned with off-flavored crops than farmers. Processors were the most concerned with catching undesirably flavor fish because they sold their fish to wholesalers, groceries, and restaurants. Some researchers focused their attentions to explaining the causes and devised cures for bad tasting catfish. The processor and researchers became the experts on flavor, not the average layman like the farmers. In fact, many catfish growers chafed at flavor evaluators' appraisals of their fish that, at times, affronted the farmer's abilities to only grow fine crops. The processors senses became paramount over farmers senses. Those farmers whose catfish just could not live up to the standard of good tasting farmed cats, quickly found that they had no other choice but to leave the business. Indeed the industry needed research on the causes and remedies to off-flavors.

Off-flavors continued to occupy Lovell for years, though with no breakthroughs. Eighteen months after his initial studies began, the scientist's article, "Fight Against Off Flavors Inches Ahead" could claim only that "Research hasn't yet developed a guide to combat off flavors, much less determine the exact causes…progress is being made." While Lovell did not have much in the way of cures, the article demonstrated that farmers misunderstood the muddy and undesirable flavors in the fish. With limited solutions, Lovell cautioned, "There is one step that growers and processors can take which will minimize the hazard of off-flavor." He asserted that growers needed to take seriously that, "catfish are very sensitive to absorbing obnoxious flavors from the culture environment." Farmers needed to understand that the catfish was a porous vessel, and the pond was invariably contributing to the quality of the meat. Further, producers had to recognize that flavor was imperative to the health of the industry. Some growers did not

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believe that undesirable flavors could hurt the industry, and incredulous others questioned if off-flavor even existed. Lovell warned, "an unpleasant flavor on the market will do serious and irreparable damage to the industry." Reminding farmers of the temporality of undesirable flavors, he wrote, "These flavors can, however, be purged from the fish so that they can be marketable."[27] For many, however, waiting for fish to become on-flavor was a painfully slow process.

In many cases, to follow advice like Lovell's the farmers had to place bad tasting crop in ponds with fresh water so that the fish could depurate the muddy flavors from their bodies. A rate of depuration varies, but typically patient farmers would wait for two weeks. If the farmer has a limited source of water, he can wait for nature to takes it course in the form of rain. The muddy and undesirable flavors would eventually evaporate as odorous compounds produced from algae disappeared as the algae either died off, or the weather cooled. Lovell observed, "The off-flavor eventually will clear up…although in many cases several months have been required."[28]

Early in the industry, researchers investigated preparation methods that could mask off-flavors. In one study conducted in 1971 found that "frying is believed to makes 'off-flavors,'…and the batter has a flavor influence in fish by acting as a flavor seal to arrest the flavors of delicate flavors."[29] Frying fish therefore served two similar, if contradictory, purposes. It not only concealed displeasing flavors, the added another

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[27] Ibid, 27.

[28] Ibid, 28.

[29] Jo Karen Clithero, *Preflavoring Live Channel Catfish*, Master's thesis, Kansas State University, 1975, 9.

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flavor, and it kept the 'good' flavors intact. This was one way catfish caught in the wild was prepared, by rolling them up in batter, and deep fat frying them to a golden crisp. This pursuit demonstrated both researchers' incomprehension of musty and muddy flavors origins or permanent cures.

Catfish aquaculture tested a farmer's patience. In many cases farmers had to place bad tasting fish in ponds with fresh water so that the animals could depurate the muddy flavors from their bodies. A rate of removing off-flavors from catfish flesh varies, but typically patient farmers wait for a couple of weeks. If the farmer has a fixed source of water, he can wait for nature to takes it course. The farmer could wait for rain. The muddy and undesirable flavors would eventually evaporate as odorous compounds produced from algae disappeared as either the algae died off, or the weather cooled. To expedite the environmental processes that produced bland catfish some farmers sought alternatives. Although in the early 1970s, when researchers like Lovell tried to figure out off-flavor, they knew that herbicides and algaecides like copper sulfate and Diuron destroyed off-flavor, which meant that they knew that algae was a culprit in creating off-flavor. Lovell found that killing all the algae in a pond was did not help farmers either. Algae produced oxygen for fish. Moreover, farmers had to apply multiple applications, and these chemicals could become toxic to the fish.[30] The introduction of other animals in the pond environment provided researchers with another alternative.

In the 1980s, investigators looked to biological controls and cures for the off-flavor plague. Polyculture, "the rearing of two or more aquatic species together in a

[30] Lovell, "Flavor Problems in Fish Culture," 468.

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pond" could provide a cost effective and algaecide-free method to control off-flavor. Polyculture could provide a way of producing various species at once, but researchers found an added benefit. In 1982, Les Torrans and Fran Lowell at the University of Arkansas at Pine Bluff reared blue tilapia and channel catfish together. The implications of their findings were promising to say the least. The tilapia fed "low on the food chain," ate plankton and detritus in stagnate waters and at the bottom of ponds. These were two known contributors to off-flavor. Despite what looked like a boon, Torrans and Lowell observed, "… There are a number of practical constraints to the successful application of this technology." First the tilapia sexually matured faster than channel catfish, and the researchers found that it would be difficult to capture just the filter feeder macroorganisms. But even if they could seine the tilapia, consumers' lack of knowledge and marketing posed "the major constraint to tilapia foodfish production." Because of this, Torrans and Lowell did not continue their studies the following year.[31] The fisheries specialists studied biological and chemical controls, but realized that the most responsible approach to washing away undesirable catfish flavors remained time and perseverance. Throughout the industry's history, investigators continued their studies on the cures of off-flavored at the pond level.

The catfish was not the only living being causing flavor problems, and sometimes farmers' were the culprits. By 1982, Auburn researchers Claude Boyd and Steven Brown discovered that flavor problems intensified because more farmers fed their fish more to

[31] Les Torrans and Fran Lowell, "Effects of Blue Tilapia/Channel Catfish Polyculture on Production, Food Conversion, Water Quality and Channel Catfish Off-Flavor," *Proceedings Arkansas Academy of Science* 41(1987): 84.

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increase growth rates.[32] What catfish ate not only affected flavor, but the amount of feed farmers distributed to their fish affected the flesh. The more the farmer fed the fish, the more likely the fish would become off-flavor. They sited Lovell in his observation six years earlier that, "conservations with catfish farmers suggestion that the problem [off-flavor] has intensified in recent years." Boyd and Brown found that farmers both impatience and desires to produce catfish as fast as they could meant they fed them more. Yet more feed meant diminished water quality as detritus feed circulated in the water. In addition, Boyd and Brown found that as farmers fed their fish more feed, not only did off-flavor become more likely, but its intensity magnified as well.[33] Although farmers in some cases caused the bane of the industry, what also made scientists work harder was the lack of standardization. Despite various studies conducted on off-flavor causes, scientists and farmers lacked standardization in both testing and lexicon.

At times, researchers' tests and results conflicted each other, and they were not sure why. For instance, experiments at Auburn University, conducted between April and October of 1983, revealed that the studies researchers conducted bewildered them.[34] The scientists studied the connection between climate and season and severity of objectionable flavors. Their studies contradicted previous work on the connection between soil alkalinity and undesirable aromas in farmed cats. Earlier studies had determined that heavy alkaline soils were more likely to produce off-flavored catfish

[32] Steven Brown and Claude Boyd, "Off-Flavor in Channel Catfish from Commercial Ponds," *Transactions of the American Fisheries Society*, vol. 111 (1982): 379-383, 379.

[33] Ibid., 381.

[34] Martin S. Armstrong, Claude Boyd, Richard T. Lovell, "Environmental Factors Affecting Flavor of Channel Catfish from Production Ponds," *The Progressive Fish-Culturist* 48 (1986): 113.

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compared to acidic soils. Although a decade earlier 1973, Lovell at Auburn found that blue-green algae caused off-flavor in catfish, which caused more confusion. In the 1983 studies, blue-green algae grew abundant in ponds with catfish that tasted on-flavor. The researchers aptly observed, "There was considerable variation among ponds with respect to off-flavor scores."[35] With such varying results, they concluded, "The off-flavor problem is apparently complex, and the organisms and environmental factors responsible for the production of odorous compounds are largely unknown."[36] The scientists vigorously continued their quest for the causes of displeasing flavors.

In 1988, after years of research, scientists affirmed that the key offenders geosmin, actinomycetes, and 2-methylisobornel(MIB) caused off-flavor in farmed catfish. Triggers in the pond environment and factors of heat and light produced algae, which emitted geosmin and 2-methylisobornel.[37] The two organisms synthesized by the bacteria or algae are absorbed in the fish through their skin, gastrointestinal tract, or gills. The odorous compounds permeate the flesh and cause off-flavor.[38] The interactions between the compounds, the pond environment, and the porous farmed cat produced off-

[35] Ibid., 116.

[36] Ibid., 116-118.

[37] J.F. Martin, et al., "2-methylisoborneol implicated as a cause of off-flavour in channel catfish, Ictalurus punctatus (Rafinesque), from commercial culture ponds in Mississippi," *Aquaculture and Fisheries Management* 19 (1988): 151-157; Craig S. Tucker and Martine van der Ploeg, Managing Off-Flavor Problems in Pond-Raised Catfish, Southern Regional Aquaculture Center Publication No. 192 (Southern Regional Aquaculture Center, 1999), 1.

[38] *Catfish Farmer's Guidebook*, Mississippi Cooperative Extension Service Bulletin, no. 1540 (Mississippi State, Miss.: Mississippi Cooperative Extension Service, 1989), 30.

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flavor, and scores of interactions between these variables produced a near endless cache of off-flavor causing scenarios.

In the 1980s and throughout the 1990s, DBES scientists Craig Tucker and Martine van der Ploeg conducted extensive investigations of the off-flavor conundrum. In fact in 1990, DBES hired Martine van der Ploeg, a Dutch-born scientist, exclusively for off-flavor research. The Catfish Journal claimed "she is by no means the first scientist to attack off-flavor. But she is believed to be the first one assigned solely to this problem." Despite years of research conducted by scientists, van der Ploeg and her associates still found off-flavor perplexing. She observed, "We don't know much about the causes- the why and how of off-flavor."[39] Despite the decades of research on the cause of off-flavor, scientists were still confused by the 1990s. Researchers still continue their search for the causes of off-flavor. As scientists worked away figuring out the causes, even by the mid-1980s, scientists continued to bump up against problems associated with the lack of what exactly constituted off-flavor.

Farmers, processors, and researchers labors to produce a near tasteless fish were impotent against the off-flavors embodied by the farmed catfish decisions and its porous body's interactions with its environments. By the 1980s, the industry had not standardized what off-flavors were. "Obviously, standardized taste tests should be developed for use by processors and researchers alike," Brown and Boyd observed in 1982.[40] The scientists found that the lack of standardization on the classification of off-

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[39] "Off-Flavor Research Project Launched at Stoneville," *The Catfish Journal*, June 1990, pg. 10.

[40] Ibid., 382.

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flavors left researchers, processors, and farmers unable to effectively communicate about the quality of the crops. The confusion and tensions between farmers and processor had been evident since the day that STRAL pulled the stinky, gross tasting fish out of the Selma pond in the late 1960s.

Defining the problem of off-flavor for researchers, farmers, and processors was no easy task as each individual person subjective experiences could challenge another's. Much like STRAL's stinky fish story revealed, not all industry stakeholders had the same sensory experiences or defined off-flavor as a problem. Much like defining what tasted bad, the undertaking to define what tasted good, or "on-flavor" proved equality onerous.[41] A report published in 1974, a Southern Cooperative Series bulletin on catfish aquaculture prepared by Lovell and food technologist G.R. Ammerman, revealed these tensions. The bulletin claimed that, "Catfish farmers are now generally aware of the off-flavor problem and are in position to appreciate the processor's evaluation of the flavor of fish that are to be processed." The bulletin revealed, however, that, "Disagreement between the two on this subject is not completely a thing of the past."[42] The researchers' observations indicated a lack of cohesion in the industry on the ideal farm-raised catfish flavor. Further, some farmers may have legitimately thought that their crop tasted good because it embodied the flavors of catfish they were already familiar with, the ones in the wild. Others, however, thought that processors held personal vendettas against some

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[41] On-flavor refers to farm-raised catfish that do not have any indication of off-flavors.

[42] Robert Lovell and G.R. Ammerman, *Processing Farm-Raised Catfish: A Report from the Processing and Marketing Subcommittee of Project S-83*,(Southern Cooperative Series Bulletin 193, October 1974), 37.

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farmers. The researchers warned, "Do not process off-flavor fish…It is important that the producer understands this and appreciates the fact that off-flavor is a serious and realistic problem and not a processor's excuse for not accepting fish."[43] Farmers learned that they had to manufacture a consistent flavor.

Taste evaluators at processing plants required training, too. Lovell and Ammerman's 1974 study specified that inspectors had to be acquainted with earthy musty flavor, and that "it is difficult and precarious to evaluate fish for off-flavor unless the evaluator is familiar with this quality." For processors, novice flavor testers at their plants could be just as problematic as a disgruntled farmer. Even the evaluators could be unsure and unfamiliar with the varieties and intensities of undesirable smells and flavors. They too could be unsure of the ideal farm-raised catfish taste. The researchers suggested that rookie inspectors "should have a control fish for comparisons" and "fish with no off-flavor and fish with distinct off-flavor should be kept on hand (in frozen storage)." Onsite samples provided another purpose. "These control samples are also useful in demonstrating to a doubtful farmer that his fish have off-flavor," Lovell and Ammerman proposed.[44]

In service of this highly scientific detection and calibration of fish flavor, the carcasses underwent pre-harvesting rituals before processing that involved specific ways to dismember, cook, and smell the animal. These preprocessing formalities still did not abate the highly subjective nature of flavor and smell; in fact they confirmed subjectivity.

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[43] Ibid, 40.

[44] Ibid, 42.

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A grower brought a fish from a pond ready for processing, and the evaluators had to decipher if the pond was ready by testing a sample. Inspectors dismembered the fish, wrapped the samples in aluminum foil, and steamed them in a double boiler. When the evaluators cooked the samples they would smell "the head space vapor when the container is initially opened," and then sample "the flesh very close to the bone from areas near the tail and at the anterior end of the carcass."[45] The process entrusted testers a standardized test to evaluate fish for what they perceived as on-flavor or off-flavor. Formalizing and standardizing the process of flavor evaluation lent trained processors' senses authority over farmers' senses. The tests reified the evaluators' senses as the best for detecting off-flavor. With a standard test and a standardized tester, evaluators nosed out a specifically bland, non-fishy flavor. Lovell and Ammerman placed an onus on the testers and wrote, "The processor should feel an obligation to his customers and producers to conduct a thorough and precise evaluation of each pond of fish."[46] To further standardize the process to check catfish flavor, processors looked to technologizing and purifying the testing experience. Joe Glover of STRAL locked his eyes toward a machine that could reproduce the same cooking conditions time after time. He discovered that the microwave was the exact tool they could use. The microwave further standardized and technologized the flavor testing process that was fraught with human error and subjectivity in the first place.

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[45] Ibid.

[46] Ibid.

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In the mid-1970s, although the microwave became a tool catfish processors used to combat displeasing flavors the human palate remained essential. The prescreening rituals remained largely the same. Evaluators taste tested a fish from a pond ready for processing. They dismembered the catfish and microwaved a piece without seasoning of any kind, even salt. Then they tasted the cooked fish. If the expert taste testers found the fish to be off-flavor, farmers had to wait a few weeks. Or the growers could figure out how to get rid of the unmarketable qualities in their crops. As a consequence, flavor tasters at catfish processing plants became ever more indisputable as gatekeepers of the perfect-farmed flavor. The taste tester made few friends with farmers. Many of them accused the testers of bias and discrimination. The microwave and expert taster at catfish processing plants became a standard, and some tester's abilities within this heavily constrained procedure and because of it, became legend.

In the early 1980s, Delta Pride Catfish a farmer-owned cooperative hired Stanley Marshall, who eventually became known as having "a million-dollar tongue" because he was so sensitive to ostensibly off-flavored catfish. Yet his palate may have been considered too discerning for the practical aims of large-scale commercial fish production. Marshall, along with other taste testers, may have been the flavor gatekeepers, but farmers and researchers found that their olfactory and gustatory sensitivity cost the industry. Even by the 1990s, farmers and processors continued to contest the farm-raised catfish flavor. For instance, in 1990, the Agricultural Cooperative Service (ACS) observed, "This subjective testing has presented a number of problems to the industry. Testing can be too severe or too lenient. Strict testing can be construed as a way for a processor to discriminate unfairly when choosing which farmer's fish to accept

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or not to accept any fish." More troubling, the author continued, "Lenient testing can be construed as a way for a processor to pay a lower pond price than the more strict processors."[47] In some cases, farmers felt that flavor evaluation had nothing to do with their crops or with documented consumer preferences; rather it was an economic weapon wielded against them. Farmers' criticisms were not categorically paranoid accusations because when processors did not take their crops due to flavor, farmers lost money and time. Land-grant researchers took farmers' concerns seriously because it showed the subjectivity and contested nature of the perfectly flavor farmed catfish. It had real financial implication for the industry as a whole.

The processors pursuit for the perfect catfish flavor hindered the efficiency of the industry. Whether more science was always better science came into question as farmers, who were stakeholders in the industry, sought improved efficiency over the best flavor. In 1992, Louisiana State University (LSU) food scientists L.S. Andrews and R.M. Grodner conducted consumer surveys to determine a standard for consumers' off-flavor tolerability. The food technologists observed that human quality controls, like Stanley "Million-Dollar Tongue" Marshall, periodically rejected up to ninety percent of the fish they sniffed, rolled across their tongues, and then spit out. Their investigation focused on "whether trained catfish 'taste testers' have been overly sensitive to off-flavors, rejecting catfish when the fish flavor would readily have been very acceptable to the average

[47] David Wineholt, "Cooperative Builds Delta Catfish Industry, Brings Price Stability, Assured Market," *Farmer Cooperatives* 57, no. 4 (July 1990): 15.

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consumer."[48] With a critical eye towards the flavor inspectors, the LSU researchers claimed, "With this high rejection rate based on off-flavor, processors have not been operating at peak production and consequently have lost man hours and money."[49] The researchers established the acceptable levels of off-flavor for consumers. "It is evident that the current standards of this processor's test-testers were much more stringent than the consumer panel required and even preferred," the researchers concluded.[50] The subjective acceptable tastes, as the study revealed, was even contested between professional catfish taster and the catfish consumer.

Researchers desperately needed a standardized language to discuss and describe farm-raised catfish flavors. They used typical laboratory methods like gas chromatography to measure amounts of geosmin and MIB in samples, setting those against acceptable tolerances for good flavor. Along with the traditional scientific tools, the human body and senses also became measurement devices. The nose that enclosed its mucus membranes and filamentous hairs, the mouth that encased the tongue and its papillae, became the contested sites of power over olfactory and gustatory qualities of the fish crop. Some researchers like Lovell believed subjective senses, taste and smell could be developed into a "satisfactory objective test for off-flavor."[51] Although researchers

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[48] L.S. Andrews and R.M. Grodner, and Louisiana Agricultural Center. "Consumer Survey of Pond Raised Catfish to Establish a Standard Level of Flavor Acceptability." *Unpublished research, LAES, Louisiana State University* (1992), 1.

[49] Ibid, 1.

[50] Ibid, 3.

[51] R.T. Lovell, et. al. "Objective Analysis of Fish for Off-Flavor," *Highlights of Agricultural Research* 33, no.1 (1986), 20.

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could measure the amount of off-flavor in the crop, and set sensory standards and thresholds, testers' sensitivity and subjectivity still mattered on evaluation panels. Yet neither instruments, nor the testers' sensory perceptions were adequate in identifying all the flavors that a catfish pond could produce especially as the problem grew in complexity with each new investigation. Until the 1980s, most researchers focused on the typical muddy, musty, and earthy objectionable flavors. There were just so many possibilities of what off-flavor could be, and on-flavor fish were just that, not off-flavored.

These studies demonstrated that the industry lacked precision. As the industry grew, more processors, and researchers realized they needed precise definitions of what off-flavors were, what were acceptable off-flavor intensities, and how to even discuss off-flavors to each other. The ubiquity of muddy or earthy musty flavors inhibited research on other undesirable flavors. In 1983, despite earlier instances of rare aromas and tastes in the crop, Lovell and other researchers officially recognized and categorized "new" catfish off-flavors. Over a sixty-day study, Lovell and his crew gathered and tasted fish from 220 commercial ponds in Alabama, Mississippi, and Arkansas. Twenty-four ponds produced unmarketable catfish. The researchers gathered a sensory panel compromised of six experienced evaluators. Their catfish-savvy palates were shocked by the researchers' samples. Only twenty-five percent of the fish they tested were muddy, earthy, or musty. The other seventy-five percent of the fish had rarer flavors or tasted nothing like anything they encountered in farmed catfish. The characters they detected ran the gamut from staleness, to notes of sewage, which were "the most subtle and harder

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to identify."[52] After the assessments, the panelists created descriptions for each, deliberated, and then came to a consensus. They not only devised terminology, but quantified the intensities of the new flavors. On a scale of whole numbers, between two and ten, the panelist described ten as no off-flavor and two as extreme.[53]

The farmed catfish continued to bite the multiple hands that fed, and caused more gustatory confusion for its researchers. Lovell and his research team categorized and described a smorgasbord of off-flavors in farmed catfish that they described as both etiologically anthropogenic and "natural." The panelists described one as a "fecal-type flavor" and another as "a lagoon with large amounts of organic decomposition." Sewage was the most frequent. Evaluators described the second most recurrent flavor as "stale" and "severely lacking freshness," which was a combination of many displeasing flavors. They also encountered the typical and familiar earthy and musty impression, which they described as, "Sharp, pungent, to algae-like to muddy." Other less frequent, but none-the-less problematic characteristics, demonstrated the range and variety of the undesirable: rancid, metallic, moldy, and "cobweb."[54]

The farm-raised catfish did not suddenly eat the materials that researchers described the flavors by, rather the official recognition of the new flavors revealed the uneasy process of defining flavors and seeking precision. As early as 1971, Lovell had noticed unusual off-flavors in farmed cats, and encountered fish that "tasted like they

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[52] Richard T. Lovell, "New Off-Flavors in Pond-Cultured Channel Catfish," *Aquaculture* 30 (1983): 329.

[53] Ibid, 330.

[54] Ibid, 331.

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came from a river just below where industrial affluent emptied." Yet he solely focused on the earthy-musty, or the "generally accepted terms in the literature...It is the predominate type of off-flavor compound in catfish." As he confronted a variety of catfish tastes at that juncture in his career he concluded, "So there are still a lot of mysteries…"[55] More than a decade later, Lovell conducted a full-blown study of these other flavors. "These off-flavors are not new," Lovell observed. But he justified the earlier absence of minor off-flavors studies, "because [these off-flavors] are more subtle and not as distinguishable as the earthy-musty, they have gone unrecognized or not been considered discriminatory."[56] The researchers' disregard for ancillary flavors demonstrates both the subjectivity and the constructedness of catfish flavors and that the descriptions of off-flavors continued to became more complicated. The quest for precisions created more definitions for flavors. But more catfish flavors as a way to read the pond environment coupled with the pursuit of precision too revealed the complex interactions between catfish bodies and their watery environments. The researchers' aims toward precision for flavors descriptors came under greater scrutiny as more research on off-flavored catfish continued and became more complex as well.

From the 1970s to the 1980s, as catfish farming became vertically integrated and more risky, off-flavor not only discouraged market growth, but halted the flow of production. In the 1980s, researchers studied the financial costs of off-flavor, and they found that the sensorial blight was an expensive problem. Since the 1980s, although

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[55] Ibid.

[56] Ibid, 332.

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farmers knew that off-flavor posed major production problems, researchers finally calculated its financial costs. They found that farmers millions of dollars each year to manage the problem. The off-flavors in catfish caused many uncertainties for farmers. They did not know when it would occur, or how often, and how long their fish would take to be back on-flavor. As one agricultural economist observed, "The occurrence of off-flavor disrupts orderly production cycles and cash flows on catfish farms…Even the good quality control programs at all major catfish processing plants, some off-flavor still occasionally 'slip through' the plants and end up in retail markets."[57] The taste could scare away customers, not to mention the costs of precious time and labor that farmers had to expend to wait for the fish to become on-flavor again. The agricultural economist continued, "When a farmer's [fish] turn comes up and all this marketable fish are off-flavor, he loses his chance to sell, often for several weeks or months."[58] One economist found that between 1985 and 1987, 58% of market-ready fish could not be marketed due to off-flavor.[59] Since processors wanted a the crop to be a certain size to process, when fish were off-flavor the crop has risk of becoming larger than desired. In addition, waiting for fish to become on-flavor meant that farmers had to sit around an additional couple of weeks before profiting from the crop.

The industry lacked cohesion in crop's most important element, its flavor. December 1986 marked an important turning point for the industry. For two days,

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[57] William Coats, "The Method For Assessing the Effect of Off-Flavor on Costs of Producing Farm-Raised Catfish in the Delta Area of Mississippi," Master's Thesis, Mississippi State University, 1988, 2-5.

[58] Ibid, 5.

[59] Mark E. Keenum and John Waldrop, "Economic Analysis of Farm-Raised Catfish Production in Mississippi," Mississippi Agricultural and Forestry Experiment Station, Bulletin 155, July 1988, 12.

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influential and decisive figures in the industry—scientists, extension agents, industry representatives, and taste experts—"trained" their palates and minds, and fabricated a standard lexicon for flavor descriptors of on and off-flavors. The investigations and the subsequent sensory panels reveal how researchers sought neutrality through quantification and group consensus, and it was this small group of individuals that devised industry standards for the inherently idiosyncratic. Despite the absence of an industry-wide vocabulary before 1986, USDA researcher Peter Johnsen observed, "The skill and training of individuals responsible for this task varies but, to date, they obviously have been successful." The researcher cautiously continued, "However, as individual businesses grow and the industry expands and matures, there is a need for some standardization of quality control practices to ensure both flavor quality and product consistency."[60] In 1986, Johnsen and other researchers at the Food Flavor Quality Research Division of the Southern Regional Research Center located in New Orleans, Louisiana developed a "lexicon of pond-raised catfish flavor descriptors."[61] The group learned "Descriptive Analysis," which is a "sensory method by which the attributes of a good or product are identified and quantified using human subjects who have been specifically trained for this purposed."[62] Then the group created cohesion by devising a

[60] Peter Johnsen, et al. "A Lexicon of Pond-Raised Catfish Flavor Descriptors," *Journal of Sensory Studies*. 2 (1987): 86.

[61] Ibid, 85-91.

[62] Robert C. Hootman, *Manual on Descriptive Analysis Testing for Sensory Evaluation* (Baltimore: American Society for Testing and Materials, 1992), 1.

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standard language for a variety of grape drinks and fish, but not catfish. [63] They standardized and calibrated their palates and minds.

Then and only then were the panelists deemed ready for catfish. In between each sample, the group cleansed their palates with crackers and spring water.[64] Through much deliberation, the panelists generated three overarching descriptive areas, which included aromatics, tastes, and feeling factors.[65] The subjective and sensitive human tongue and brain of each panelist created the standard for catfish flavor descriptors for the whole industry. It was finally with this study, that the industry devised ways to describe what was on-flavor too. It was nutty, chickeny, and corny. But even too much of these flavors could be off-flavor. Martine van der Ploeg, an off-flavor catfish flavor researcher observed, "Note that although these descriptors are considered positive flavor attributes, if chicken, corn, or buttery flavors dominate the mild catfish flavor, [the] fish may not be acceptable to a processor."[66] Regardless in 1986, the industry formulated a language to describe catfish characteristics based on their own sensations of taste, olfaction, and

[63] To read more about Descriptive Analysis, see: "Descriptive Sensory Analysis: Past, Present and Future," *Food Research International* 34 (2001): 461-471.

[64] Peter B. Johnsen and Gail Vance Civille, "A Lexicon of Pond-Raised Catfish Flavor Descriptors" *Journal of Sensory Studies* 2 (1987): 88.

[65] The standard aromatics were nutty, boiled chicken, grainy, MIB or an flavor associated with blue-green algae, geosmin or a taste related to decaying wet wood, putrid, rotten plants, cardboard, and painty. The tastes were sweet and salty, while the feeling factors were astringent and metallic.

[66] Martine van der Ploeg, *Testing Flavor Quality of Preharvest Channel Catfish*, *SRAC Publication no. 431* (Southern Regional Aquaculture Center: November 1991), 4.

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touch.[67] In configuring a standard lexicon, the researchers' bodies became tools and agents against off-flavors.

Creating a standard lexicon created new problems. After the 1986 caucus to standardize the vocabulary for catfish flavors, researchers realized that they had to figure out how to effectively implement and accurately utilize the industry lexicon. Regardless of the training, discourse, and consensus that flavor evaluators underwent to create the standard vocabulary, Johnsen found that despite a standard lexicon, evaluations lacked objectivity. Johnsen recognized the flaws in human quality controls. A few years after his lexicon study, the food technologist directed an investigation on the reliability of sensory evaluations for farm-raised catfish. Johnsen complained previous studies made "no attempt to determine the precision and reliability of the evaluation[s]." Johnsen interviewed and selected participants based on a variety of stipulations related to taste, lifestyle, communicate, and commitment. Johnsen and his research team needed standardized testers so they could standardize catfish flavor testing techniques. They chose sixteen non-smoking participants who devoted a year to the study. Their palates had to be sensitive to catfish off-flavors. But of equal importance, the participates had to be able to effectively communicate, possess basic knowledge of flavors, and understand as well as recount chemosensory experiences. The panelists, ranging from ages 19 to 74 years, trained for seventy-five hours over a five-month period. They became familiar with Descriptive Analysis and a variety of fish descriptors. During the testers' meetings, they discussed, debated, and then created the very terms for a sensory ballot. To ensure that all

[67] Peter B. Johnsen and Gail Vance Civille, "A Lexicon of Pond-Raised Catfish Flavor Descriptors" *Journal of Sensory Studies* 2 (1987): 86.

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panelists were on the same page, the researchers attached scores for each attribute, and calculated a mean score for each. If an individual panelist's score deviated from the rest, they "were coached to improve performance."[68] Taste testers had to be standardized.

The standardized testers needed to test standardized testing objects too. Johnsen and other researchers held significant, "Concern over the performance capabilities of individual panelists and the panel as a whole, as well as, the material being evaluated…"[69] For Johnsen and his crew, people were only half the problem the materiality of catfish bodies posed another. Using a technique that the research team called Blended Individual Fish Samples (BIFS), they pureed multiple samples of flesh in a food processor. The fish's body compromised a range of flavors, which depended on whether a sample came from anterior and posterior areas. More challenging, samples from the same pond could have inconsistent flavors too. The researchers blended various parts of multiple catfish to create samples. The BIFS was "more homogenous and thus better representative of the population," the team asserted.[70] The industry needed standardized testers and standardized materials. These studies illuminate intriguing questions of how groups reach consensus on subjective qualities such as flavor and smell. The subjectivity of human palate and nose, particularly those associated with the science and production, constituted industry wide thresholds that established off-flavors and on-

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[68] Peter Johnsen and Carol Kelly, "A Technique for the Quantitative Sensory Evaluation of Farm-Raised Catfish" *Journal of Sensory Studies* 4 (1990): 191.

[69] Ibid,. 190.

[70] Ibid., 191

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flavors. Yet scientist continued in their quest for objectivity. They cast their eyes on machines.

By the early 2000s, industry researchers were comparing sensory instruments like the electronic nose and vision machines to human taste testers. Their basic premise stood on the problematic subjective nature of taste and smell. "Current inspection of catfish quality relies upon sensory evaluation that can be subjective, prone to error and difficult to quantify," researchers argued.[71] Further, despite the fact that, "the human nose can readily detect MIB and geosmin at the sub parts per billion, only semi-quantitative data are provided and human readily succumb to sensory overload." Other food industries have used electronic sensory devices because off-flavor compounds like geosmin and MIB, "cause chronic problems in aquaculture and are ubiquitous in nature, with deleterious impacts in such diverse commodities as drinking water, cereal, sugar, whiskey, and paper tissue products."[72]

Scientists found that machines and humans contested what was desirable and unpleasant. In a 2004 study, USDA researchers Casey Grimm, Steven Lloyd, and Paul Zimba of the Thad Cochran Warm Water Aquaculture Center in Stoneville, Mississippi discovered that in relation to muddy flavors in catfish, human faculties as agents and tools against off-flavor could be tested against sensory machines. The researchers used electronic noses to "smell" their catfish samples and measured the amounts of geosmin

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[71] Figen Korel, Diego A. Luzuriaga, and Murat O. Baiban, "Quality Evaluation of Raw and Cooked Catfish (Ictalurus punctatus) Using Electronic Nose and Machine Vision," *Journal of Aquatic Food Production Technology* 10, no. 1 (2001): 3.

[72] Casey C. Grimm, Steven W. Lloyd, and Paul Zimba, "Instrumental Versus Sensory Detection of Off-Flavors in Farm-Raised Channel Catfish," *Aquaculture* 236 (2004): 310.

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and MIB. Professional taste testers chewed and rolled catfish samples on their sensitive fleshy palates, and then made their conclusions. Although machines and humans agreed on seventy-six percent of the samples, twenty-four percent of results remained in dispute. Either the machines found the samples to be off-flavor and the evaluators asserted the samples to be on-flavor or the more problematic, the instruments found samples to be on-flavor, and the testers disagreed. From the researchers' perspective, "the second disagreement is of greater concern as the instrumental method is considered to be more sensitive and to provide a greater level of objectivity as well."[73] As investigators adjusted the instrument's satisfactory thresholds for MIB and geosmin, human and machine still contested four pieces of catfish flesh. In regard to the contested snippets and the discrepancies between the two assessment methods, Grimm, Zimba, and Lloyd concluded, "The possible reasons for the disagreement on the four fish are unknown and could result from mislabeling, sample preparation error, and/or instrumental malfunction." In short, they concluded, "we have no definitive explanation for these four fish and consider them anomalies."[74] Sensory instruments, like human quality controls, could fail.

Moreover, mechanical set-ups were expensive and economically unfeasible for some processors; perhaps not surprisingly, transcending both machine and human instruments some land-grant scientists saw promise in animal technologies. Scientists considered animals with heightened and differing sensory experiences. In the early

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[73] Ibid., 316.

[74] Ibid.

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2000s, Richard Shelby at Auburn University trained dogs to detect geosmin and MIB in water samples. He found, "The dogs are as accurate" and "they're quicker," than testing waters for off-flavor causing compounds or tasting the fish itself.[75] With this success, Shelby decided to test the dogs' abilities on processed catfish fillets. The team trained Rusty, a Labrador retriever mix, Maggie, a German Shepard mix, Ralph, a Setter mix, and Ginger, a Chow mix to sniff out off-flavors associated with geosmin and MIB in catfish samples. On average the dogs were found to be eighty-one percent accurate. Ginger was even more precise and scored a whopping ninety percent accuracy rate. Scientists found pitfalls with the canine inspectors, however. While human evaluators could easily detect what researchers' had predetermined to be "unique" and nasty, dogs might find the same flavors "agreeable, or even pleasant," and they would thus "not be identified as off-flavour."[76] The researchers concluded, "We do not propose that dogs replace humans as 'taste-testers' at catfish processing facilities…"[77] Indeed dogs had acute olfactory experiences that had the potential to detect off-flavor. But the dogs' subjectivity and their preferences for what they considered pleasurable and repugnant fell in line as similar obstacle that farmers, processors, and researchers experienced in relation to each other. Some just could not agree on what was good and bad flavored farm-raised catfish.

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[75] David Elstein, "Something's Fishy: Training Dogs to Smell Off-Flavor in Catfish," *Agricultural Research*, April 2004, 11.

[76] Richard A. Shelby, Lawrence J. Myers, Kevin K. Schrader, and Philip H. Klesius, "Short Communication: Detection of Off-Flavour in Channel Catfish (*Ictalurus punctatus* Rafinesque) Fillets by Trained Dogs," *Aquaculture Research* 37 (2006): 301.

[77] Ibid, 300.

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The farm-raised catfish industry claimed that the crop embodied scientific agricultural control. Yet researchers never devised mechanisms to completely govern the interactions between the frenzied pond environs, catfish initiatives, and catfish bodies. "Absolute control over environmental conditions in commercial aquaculture systems is not possible," aquaculture researcher Craig Tucker claimed in 2000.[78] As a result, the crop had the potential to taste like wild cats. The industrial flavor of the farm-raised catfish, had as much to do with human quality controls as its agricultural production. What farmers, processors, scientists, and shoppers considered displeasing or off-flavor was contingent on the individual, their goals, and sensitivity. The farm-raised industry changed the catfish into a blander and whiter food, but the arduous process was fraught with contestations between catfish bodies and farmers, and the industry's key players and their subjective olfactory and gustatory tastes. These interactions and measures turned a "muddy tasting" fish identified with rural poverty and blackness into a mild-tasting product presumably unencumbered by racial and class associations. In turn, the manipulation of the farmed flavor contributed to the transformation and the popularity of the crop. The history of flavor and the catfish demonstrate that the search for the ideal cat was as fraught with contingency as the pond environment itself.

The catfish's material and sensorial makeover demonstrates how the constructedness and subjectivity of flavor informed constructions of race and class. Ensuring that a mild fish hit consumer plates meant to cater to what the industry thought white, middle class, and upper class palates preferred. The development of science and

[78] Craig S. Tucker, "Off-Flavor Problems in Aquaculture," *Reviews in Fisheries Science* 8 (2000): 45-46.

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technology aimed at flavor quality shows that science was far from objective. Rather processors' and researchers' own understandings of what were good and acceptable flavors were loaded with subjective notions of racial and class difference. Moreover what farmers, processors, scientists, and shoppers considered displeasing or off-flavor was contingent on the individual, their goals, and sensitivity. The industry changed the catfish into a blander and whiter food, but the arduous process was fraught with struggles between living organisms and the industry's key players and their senses.

The industry standardized the catfish body, catfish flavor, and to a certain extent, the catfish evaluators, who calibrated what was considered good-tasting fish. The search for the subjectively bland non-fishy farm-raised catfish was as burdened with contingency and chaos as the pond environment itself. The catfish as material object fought back and caused uncertainty for the industry, precipitated research, and its flavors caused the farmers', processors', and researchers' palates to clash against each other. Indeed the unruly living organism was a challenging material object to control and standardize for industrial commercial purposes.

The sensorial and material makeovers of the catfish were in vein, however, if consumers were not convinced to purchased and consume the crop. The industry needed an image makeover. An ideological makeover had to accompany the animal's transition from wild and muddy to bland and domesticated. From the 1970s and beyond, the industry engaged in extensive marketing to ensure that the catfish makeover was complete.

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CHAPTER V

"CATFISH IS KING IN DIXIE": MARKETING, NOSTALGIA, AND THE FARM-RAISED CATFISH, 1970S TO TODAY

In 1974, the National Oceanic and Atmospheric Administration's (NOAA) fisheries division the National Marine Fisheries Service (NMFS) published a colorful promotional cookbook entitled *Country Catfish.* The authors paired recipes like "Zippy Broiled Catfish" and "Dixieland Catfish" with images of delightfully prepared dishes on ornate tablescapes. The NMFS was responsible for the conservation of fisheries resources in the United States, and in the 1970s, distributed the cookbook to promote the new industrial farm-raised fish. The booklet extolled the edibility and the cultural significance of the animal. With sketches of women in hoopskirts and steamboats lining the pages, the authors reimagined the infamous wild fish's past. The NMFS bore the animal's tenure in American culture as an allegedly idolized animal and food. "Catfish are as American as baseball, the Fourth of July, or the Statue of Liberty," the booklet claimed. With "an unusual appearance, and a voracious appetite," the animal became legendary and Americans showed their respect by "the naming of streams, parks, streets, and even townships in their honor," the agency claimed. The NMFS pressed that, like this range of places and people that took the catfish name, a diversity of folks also consumed the fish. It "graced the tables of nobility, figured in the election of statesmen, and provided sustenance for explorers, pioneers, and American Indians." In "Mississippi river boats,

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palatial plantations, and Cajun cottages," the cookbook underscored, all people—the enslaved, the poor, and the richest—sat down to eat it.[1] The agency tried to spin the animal's actual poor reputation by evoking romantic nostalgic images of a unified people, southern and American, to convince the public that all Americans had forever loved and paid homage to the whiskered fish. *Country Catfish* promoted a palatable image that middle class white American consumers could swallow. The agency whitewashed the catfish's past.

This chapter describes how the farm-raised catfish industry re-branded the fish by re-writing its history and place in contemporary culture. To whitewash the fish, farmers, processors, and catfish farming advocacy groups took the fish out of the muddy cultural waters it normally swam in and introduced the animal into new cultural landscapes through fresh recipes, unfamiliar sites of dining, and extensive marketing. Armed with a new bland flavor that came from its new farm breeding grounds, the farmed catfish was a new animal designed, grown, harvested, and cooked for a new eater. As the new bland fish swam in unchartered waters, Americans created new meaning for the fish as one of the most southern on earth whose charm stemmed from being ostensibly loved by all *and* one of the most despised downtrodden underdogs in southern foodways. In the process of creating a marketable and visible commodity, the industry flattened and compressed wet and dry spaces, and consumers came to understand the American South as a region where everyone ate the catfish regardless of place, race, and class. Embedded in the ideological transformation of the fish from a wild muddy animal to a bland domesticated crop was a

[1] *Country Catfish*, National Oceanic Atmospheric Administration Publication, 1974, 1.

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shift from a segregated Jim Crow culture to a color-blind Sunbelt society. The farm-raised catfish invaded the American culinary landscape, and brought new meanings for what it meant to be southern.

The NMFS's positioning of the catfish as old *and* new relied on an explanation of science and modern agriculture. In a contradictory fashion, the "new" fish crop was not like the wild one at all, they explained, but a highly controlled product. Relying heavily on scientific language, the book claimed that "A proper environment is maintained in specially designed rearing ponds, and growing conditions are controlled. Brood stock is carefully selected, and feed rations scientifically balanced." The NMFS maintained that *precision* and *control* created the fish: "As in any type of modern farming, scientific management techniques are used throughout."[2] However, the cookbook was not all stark language about a modern sterile farm environment; the pages were lined with those nostalgic images that were wholesale products of a marketer's imagination.

The NMFS cookbook is a window into the farm-raised catfish industry in the early 1970s. Like many cookbooks after it, it demonstrated that the material and sensorial transformation of the animal into a crop that influenced cooks and consumers to create new narratives and meanings for the wild catfish's past. This chapter examines the various ways this happened in mediums like cookbooks, newspapers, and festivals. It analyzes how these discursive representations of the catfish were crucial to the catfish makeover—indeed, just as crucial as the animal's physiological transformation.

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[2] *Country Catfish*, (Chicago: National Oceanic Atmospheric Administration Publication, 1974), 19.

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American consumers, both in and out of the South, contributed to and reinforced an ideological transformation of the catfish.

Marketing efforts began with the body of the fish itself. In the early industry years, for some food technologists to make the fish as uncatfish-like as possible was a necessary component in its material, sensorial, and ideological metamorphosis. In the late 1960s, researchers found that would-be buyers of the catfish balked at seeing and dealing with the animal's skin. Catfish had an oily-looking, dark, and sometimes rubbery exterior that home cooks did not want to clean. In addition, it became clear to scientists and consumers alike that the catfish skin emboldened the fish's muddy flavor. Skinning the fish before it reached the super market was no easy prospect though necessary. Whereas with most commercial fish like salmon or cod, fishmongers remove only the scales, catfish required full skinning.

This is labor intensive, but imperative to the marketability of the fish. Food technologists at Mississippi State University (MSU) examined building a machine that would cost-effectively skin the fish without affecting flavor or texture, but these experiments proved to be more creative than efficient. In 1971, horticulturist G. R. Ammerman found an alterative to man and machine. Ammerman developed a chemical skinning process. Using lye, a sodium hydroxide solution, Ammerman's process, "resulted in 100 per cent removal of both skin and pigment with no change in pH or flavor."[3] The researchers wanted to test skinning solution beyond the lab.

Sometime in 1971 academic school year, MSU's campus cafeteria served the Ammerman's chemically skinned fish to students and faculty. Without informing the

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[3] "How to Skin a Catfish," *The Catfish Farmer*, January 1971, 11.

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diners prior to chowing down the lye-soaked catfish, the horticulturist observed, "the general reaction was that if we hadn't told them, they wouldn't have known the difference."[4] Ammerman argued an advantage of chemical skinning included "no 'off-flavor' resulted from the process."[5] Sadly Ammerman and his research team had no idea what the economic costs would be to processors, though processors could suffer the medical costs of dealing with the potentially harmful chemical solution. Ammerman maintained that "any time you use a caustic solution, there is some danger involved," but that the research team "learned to deal with it."[6] For Ammerman the danger was worth it.

Processing the catfish out of the catfish was a necessarily component in the relationship between the material and ideological makeover of the fish. The demand for courses on catfish processing in the state became so great that MSU decided to host an annual workshop called the Catfish Processors Workshop. The seminars aimed to, "provide processors and others with interest in farm-raised catfish information relative to the technology of processing, marketing, managing and promoting the product."[7] At these workshops farmers and processors learned how to efficiently make the most marketable crop. The Catfish Processors Workshop became a mainstay on the campus for decades. The demand for the workshop shows that farmers and processors understood that unlocking the profitability of the fish lay it the ways they sold it to consumers. A fillet of

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[4] "How to Skin a Catfish," 13.

[5] Boyd Gatlin, "More Than One Way to Skin a Catfish," *The Starkville Daily News*, 24 June, 1970, MSU Archives, Food Science and Technology Department Vertical File.

[6] "How to Skin a Catfish," 13, 16.

[7] "Third Annual Catfish Processors Workshop" May 30 and May 31, 1973.

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raw pearly pink white flesh under cellophane was very different than a whole body with skin or even head, eyeballs, and whiskers intact. They not only had to make the fish as convenient to eat as possible but turn the animal into an unrecognizable piece of meat. The researchers knew that the catfish was considered déclassé, but ironically early pond-produced fish was anything but cheap. The crop sold at $1.10 per pound in 1971. Beef cost consumers 7 cents less per pound and the fish cost roughly 70 cents more than a frying chicken.[8] Although production increased, from 10.8 million pounds in 1967 to roughly 58.6 million pounds in 1971, extension agents recognized that costs needed to be seriously curtailed.[9] Either farmers had to produce more farmed cats or they had to decrease production costs. To make matters worse, catfish aquaculturist Jasper Lee observed, "The retail price level of the catfish has often placed them in the luxury category. Yet, they do not have a luxury reputation."[10] Lee's observations revealed that the industry needed to reduce costs, but also presented another alternative. The industry could ensure that the farmed cat was a gourmet item.[11]

It was imperative for the industry to create a new image for the fish that hinged on improving its ties to middle class and rich consumers. They could afford to buy the fish at higher prices. A United States Department of Agriculture (USDA) study in 1972

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[8] Robert Williams, "Outlook on Catfish," Wildlife and Fisheries Cooperative Extension Service Collection, Box 1, Catfish Processors Workshop May 18-19 1971 Folder, CPRC, MSU.

[9] Memorandum from Robert Williams to All County Agents, May 24, 1971, Wildlife and Fisheries Cooperative Extension Service Collection, Box 1, Catfish Processors Workshop May 18-19 1971 Folder, CPRC, MSU.

[10] Jasper Lee, *Commercial Catfish Farming, Second Edition* (Danville, IL: The Interstate Printers and Publishers, Inc., 1983), 14.

[11] Ibid.

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reinforced what farmers already knew: catfish consumers, even the traditional consumers, did not want to or could not pay for a high priced cat. Since traditional catfish consumers were poorer, they could not afford the fish. In 1972, the USDA conducted a study of demand for farm-raised catfish in six grocery stores in Atlanta, Georgia. The study made some pretty unsurprising conclusions. The more expensive the fish, the less people would buy it. Consumers balked at the meat's high price. Overall, the industry needed to lower the cost, which meant that farmers and processors alike needed to improve the "efficiency of production, processing, and marketing." At an "optimum retail" price of $1.19 per pound, the study found that only one out of 150 people bought the product. At that price, the USDA concluded that the frequency of purchase "indicates rather low consumer acceptance even in what might be considered a 'good' catfish market."[12]

They agency was hopeful, however. If the farmers and processors could reduce their costs, thereby reduce the retail price of the farmed cat to $0.99 per pound then the agency predicted that more shoppers would buy the fish. The USDA even ventured that sales would increase by seventy percent.[13] Still, even at the lowest prices of $0.79 only one out of fifty consumers bought the farm-raised fish. "At the present time, catfish does not have wide consumer acceptance in what might be considered a 'good' catfish market area," the authors claimed. In short, even in "good" catfish markets the fish wasn't worth buying. The USDA findings demonstrated that either most people who ate catfish in the

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[12] Richard Raulerson and Warren Trotter, *Demand for Farm-Raised Channel Catfish in Supermarkets: Analysis of Selected Market*, USDA Economic Research Service Report (Washington, D.C.: Government Printing Office, 1973), ii.

[13] Ibid., vi.

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early 1970s either did not want to pay for the fish or they were too poor to frequently purchase the fish, even if they liked the product. These studies demonstrate that catfish consumption certainly tied to economic standing, which had implications for who the industry needed to target to increase their sales. They needed middle class and rich folks to buy the fish.

To that end, extension agents and other government agencies tried their hands at convincing consumers to prepare the farm-raised catfish in nontraditional, even up-scale ways. In 1973 Thomas Wellborn, a Mississippi agent, distributed a Cooperative Extension Service leaflet entitled "Fancy Catfish."[14] The circular enlightened readers on various ways to cook the fish, emphasizing its utility in any number of cuisines. Although one recipe instructed consumers to roll the fish in cornmeal and then fry it in traditional fashion, the leaflet also circulated recipes like "Continental Catfish" and "Cajun Catfish." The recipes sought to expand the fish's marketability by alerting the public that it could be enjoyed in diverse manners. The fact that the agency titled the recipe leaflet "Fancy Catfish" is telling. It revealed Extension's deliberate intention to raise the socioeconomic profile of the crop. Up to that point, no one had claimed the fish to be "fancy."

Up to the 1970s, no one ever devoted a whole festival to the fish either. But as with the efforts to make the fish upscale, the catfish farmers tried to convince consumers that the fish was worth celebrating. In 1974, drivers along U.S. Highway 49W discovered a new sign as they entered Humphreys County, Mississippi. Drivers and passengers passed a new sign that read "The Catfish Capital of the World." Belzoni, Mississippi

[14] Thomas Wellborn, *Fancy Catfish* (Mississippi State: Mississippi Agricultural and Forestry Extension Service, 1973).

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mayor S. Leroy Reed claimed the town was the heart of global catfish production, and made this "proud statement with no trepidations." By then, Mississippi led the nation in catfish production with 26,112 acres underwater, which comprise nearly half of the 54,633 acres devoted to catfish production in the nation. Mississippi was a clearly the leader, and Humphreys County had 5,802 acres in production alone. The Belzoni mayor was a catfish farmer too, a fact that most likely encouraged his push for the designation.[15] Despite the special title, the town did not have the financial means to take advantage of the distinction right away. Yet Reed was determined to inform anyone and everyone that Belzoni was the Catfish Capital of the World. "The story will be told anywhere and to anyone who is willing to listen," the *Catfish Farmer* wrote of Reed's goal. The Belzoni mayor's work finally paid off. Two years later, his town hosted its first catfish festival.

The first festival began with great fanfare. On April 8, 1976, Belzoni launched the Bicentennial Catfish Festival, where some 5,000 to 6,000 people flooded the town to eat and breathe catfish. Among the festivities and hoopla, Humphreys County catfish farmers wanted the distinction Reed made only two years earlier legitimated. Mississippi governor Cliff Finch obliged in a headlining speech that proclaimed Humphreys County the Catfish Capital of the World. Reed and his fellow catfish farmers' dream were finally realized. "But the truth is the truth!" Finch declared. "Humphreys County is the catfish capital of the world and I'm ready to do battle with anyone from any state or any county who tries to dispute that fact," the governor continued.[16] The festival signaled a concerted

[15] "Humphreys County, Mississippi 'Catfish Capital of the World,'" *The Catfish Farmer*, July/August 1974, vol. 6, no. 4, 12-13.

[16] Chris Bickers, "Catfish Capital Proclaimed," *The Delta-Democrat Times*, April 9, 1976,

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effort by boosters and Mississippi's elected officials to change attitudes towards the catfish. Moreover, their actions held important implications for southerners' ideas of race, community, and the role of food in bringing people together.

The designation as Catfish Capital of the World represented far more than just a point of pride for Belzoni. The small town lay in the heart of the Yazoo-Mississippi Delta, a region that for decades had been rocked by racial discrimination, violence, and visible and active contentious protests of the modern civil rights movement.[17] The festival along with a the infusion of new recipes like Fancy Catfish demonstrate a concerted effort by farmers, processors, and boosters to change the region's image and its connections to the downtrodden catfish image and its past. The Bicentennial Catfish Festival became an important site of cultural work where visitors of all races and all classes shared in a mythologized image of the animal and their southern past. If catfish truly brought people together over one bite of food it happened in places like Belzoni's festival.

At the festival tourists learned about and celebrated the catfish and the farmers who brought the fish up from the mud. Through various exhibitions, including a live catfish display, attendees learned how farmers grew the fish. The festival-goers could also take see the operation up close and personal and take bus tour of a local catfish farm and feed mill. Tourists could visit an arts and crafts show, watch a production of Hansel

[17] For more on more on the civil rights movement in the Mississippi Delta, see: John Dittmer, *Local People: The Struggle for Civil Rights in Mississippi* (Urbana: Univeristy of Illinois Press, 1994); J. Todd Moye, *Let the People Decide: Black Freedom and White Resistance Movements in Sunflower County, Mississippi, 1945-1986* (Chapel Hill: University of North Carolina Press, 2006); Francoise Hamlin, *Crossroads at Clarksdale: The Black Freedom Struggle in the Mississippi Delta After World War II* (Chapel Hill: University of North Carolina Press, 2012).

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and Gretel, visit Wister Gardens, and check out a “Multi-Media Show” of antiques and art at the county library. Lastly, the festival would not be complete without the crowing of the Catfish Queen. The first festival was a success, and the World’s Catfish Festival became an annual mainstay in the “Heart of the Delta” for years to come. The festival as cultural work was both edifying and entertaining for attendees. It offered a site for the industry to remake the image of the region both through the economic potential of the crop and by pulling the fish from its muddy past. Reimaging the fish as something worth celebrating reified the notion that it had always been beloved.

One way that the organizers of the World Catfish Festival celebrated the crop and helped redefine the fish’s image was to showcase the taste and culinary appeal of farm-raised catfish. During the first festival, attendees could enjoy a farm-raised catfish with a catfish and hushpuppy dinner.[18] After the first year, the festival organizers made food a more visible aspect of the farm-raised catfish industry, rather than all industry. In 1977, locals and tourists watched how home cooks actually cooked the fish. That year the festival also began an annual fried catfish eating contest or the “Catfish Eating Festival.” A skinny teenager named Tommy Lister ate three pounds of catfish in nine minutes and forty-five seconds, which led the Chamber of Commerce to send in the stats to the Guinness Book of World Records. “First time its ever been done,” the *Jackson Daily News* observed.[19] Although thousands of visitors flocked to the festival each year after its

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[18] Bicentennial Catfish Festival Pamphlet, April 8, 1976, Catfish Festival Subject File, Belzoni Public Library, Belzoni, Mississippi.

[19] “3 Pounds of Catfish and a Skinny Catfish Eater,” Jackson Daily News, April 8, 1977, 1A, World Catfish Festival Subject File, MDAH, Jackson, MS.

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birth in 1976, the industry needed more promotion and influence than just an annual festival. The festival was a hyper local event, despite bringing in outsiders to the region, but one that ultimately only helped the farmers and residents in the Delta through economic activity and a new regional image that shifted away from a legacy of violence to one that promoted good food. The catfish farmers needed to ensure that the image of the farm-raised catfish reached consumers across the nation, and even the globe. Cooking up new preparation methods continued to be the most prevalent way that catfish farming organizations like the Catfish Farmers of America used to change the fish's image. Rather than place the onus primarily on themselves, extension, or home economists, in the 1970s, the CFA looked outwardly to the public to circulate the promise of the farmed catfish. After all the farmed catfish was food, and consumers had to believe in the farmed catfish gospel. In 1977 the CFA began a recipe contest. The CFA advertised the contest in newspapers across the country as a way to publicized the fish and find ways to improved fish image. Newspaper not only publicized the contest, but the CFA saw the potential in food writers as a source of publicity. "To assist in marketing, we try to target on[sic] food editors about helping us get the word out about farm-raised catfish. These people have been most cooperative about getting anything we send them out about farm-raised catfish," Robert McClellan observed at a Catfish Processors Workshop in 1979.[20] Getting home cooks and professional food writers to contribute to the ideological transformation of the fish meant that the gospel could be spread across the nation to anywhere people sat down and read the paper, and tried out new concoctions in their

[20] Robert McClellan, "State of the Industry," *The Catfish Processors Workshop*, 1979, 45.

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kitchens. Looking to home cooks to create the recipes too could create a sense of a national catfish community. Everyone could contribute to the fish's makeover.

New cooking methods became the most prominent, and probably successful, way to market the fish. In 1982, the *Wall Street Journal* wrote, "The cooking contest is part of the trade group's tireless effort to improve the image of farm-raised catfish…" As the industry tried to convince consumers that they could prepare catfish in a variety of ways, the newspaper also reminded consumers that they "Shouldn't be confuse" the "ordinary river variety-in which there can be quality control problems," to the crop. The *WSJ* concluded, "To put it mildly, due to their rather indiscriminate eating habits," the wild fish was unlike the crop because farmers provided "the most exquisite environment we can provide" for the crop to grow in which caused it to taste better. [21] While cooking offered new ways to reconceptualize the fish through a material change that continued after growing and processing the crop, the farmed cat's flavor was also imperative to the ideological transformation of the fish. Food writers took note.

As the stakeholders tried to boost the farm-raised catfish's status, more southern food writers began to recognize the crop's flavor qualities. Some, however, were not on the early farm-raised catfish wagon. In 1975, Rima and Richard Collin published *The New Orleans Cookbook* that celebrated the Crescent City's food and restaurant culture. The Collins included a substitution chart for fishes when the home cook could not find New Orleans fish. The substitutions for catfish stuck out like a sore thumb. Unlike speckled trout, redfish, or flounder, which had many different substitutions, catfish had

[21] Eric Morgenthaler, "As Experts Know, There is More Than One Way to Cook a Catfish" *The Wall Street Journal*, December 23, 1982.

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"NO SUBSTITUTE."[22] The Collins also included a Spicy Fried Catfish recipe, which stated "We like a *very hot* corn meal crust for fresh catfish; it seems to set off the sweet taste of the catfish perfectly," the Collins observed. [23] The recipes also included "cold milk for soaking" filets, which is a traditional way to tenderize the wild caught fish and leach some of the muddy taste of its flesh. The Collins observation, and their instructions for preparation of the catfish, reveals their connection to older culinary methods that predated the rise of farmed cats. Their strategies specifically highlighted the wild fish's unique flavor. Unlike the farm-raised fish, wild catfish is not a near tasteless fish that could be easily replicated.

In contrast, food writers described the pleasant taste of the new manufactured fish. By the 1980s, newspapers waxed lyrical about the transformation of the catfish's image and flavor. "There's something fishy going on in America. It's the gentrification of the once-country catfish," Charlotte Balcomb wrote for the *Orlando Sentinel* in 1987. No more seen as a substance fish, the farm raised was something that shoppers could readily buy. Consumer choice, and the exercise of their purchasing power on an entirely new product born of aquaculture, consummated the catfish's legitimacy as food. The fact that the fish just tasted and looked different lay at the heart of this change. "Farm-raised catfish are, literally, fish of a different color from wild catfish. Their flesh is snowy white. In river cats, the flesh is sometimes beige or off-white in color," Balcomb wrote. The image conjured by the *Sentinel* article signaled an important shift in the catfish

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[22] Rima and Richard Collin, *The New Orleans Cookbook* (New York: Knopf, 1975), 20.

[23] Ibid., 22.

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market related to changes in its appearance and flavor. Just as the color of the fish's flesh became "whiter," so too did its consumer base.

Many writers compared farm-raised with wild cats to argue that the crop was indeed superior in taste, and thus more high-class. The wild fish "have a strong flavor, a muddy taste. They're poor folks food," Merle Ellis of the *St. Petersburg Times* claimed in 1987. "Today's farm-raised catfish are among the finest, freshest, most flavorful and versatile fish you'll find in any market or on any restaurant menu…" Ellis continued. She emphasized clean environments, control, and the feeding habits of the crop. The fish's "bad rap" came from the "'natural' catfish, those that populate every river, stream and pond all down the center of the continent and across the South, are 'bottom feeders,'" the food writer argued. The ways in which cleanliness, catfish behaviors, and environments interacted created the supposed muddy flavor. That simple factor accounted for their distasteful flavor.[24]

The same could not be said of the farm-raised cats that found their way to consumers' plates in the 1980s. The bland, light flavor made the fish a culinary tabula rasa. Middle class folks could make it into anything they wanted. One writer claimed, "The flavor of catfish, which is as bland and inoffensive as that of tofu, makes them suitable for highly seasoned sauces."[25] In 1987, *Newsweek* claimed, "Unlike its river-dwelling counterpart, farm-raised catfish is so bland it's almost tasteless" and concluded that "that Americans, many of whom grow up in thrall to frozen fish sticks doused with

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[24] Merle Ellis, Farm Raised Catfish Dispel Bad Reputation," *St. Petersburg Times*, 26 March, 1987.

[25] "Fish" *The Marysville-Yuba City Appeal-Democrat*, March 12, 1986.

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ketchup, plainly find to their liking."[26] Other newspapers and magazines stressed the non-fishy flavor of the crop and compared it to other well-known meat flavor, chicken.[27]

By the 1980s, as food writers like Merle Ellis recognized the differences between wild and farmed catfish, land-grant researchers continued their pursuit for an improved catfish image by introducing consumers to enticing new products. In addition to targeting consumer cooks, food technologists like G. R. Ammerman aimed to create products restaurateurs could purchase. By 1981, he set his eyes on fast food. He pushed for processors to begin making a filet "rolled in batter, breaded, and pre-cooked and then frozen, ready to heat and serve."[28] In the 1980s, Bahman Ghavimi in the Food Technologies Department at MSU created a "mouth-watering catfish loaf," a processed sausage-like food. Ghavimi's creation was just one idea to make the fish more marketable.[29] Although at the time MSU researchers predicted that catfish loaf could, "become a boon to people who like good food—and the fish farmers who produce it," the product never took off.[30] Ghavimi described the loaf as tasting like "ham."[31] The farmed catfish was so bland and non-fishy that it could be made to taste like any terrestrial meat,

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[26] Lisa Shapiro and Frank Washington, "No Mud for the New Catfish," *Newsweek*, June 29, 1987, 53.

[27] Lad Kuzela, "Fish Farmers' Get a Whiff of Profitability," *Industry Week*, 4 October, 1982, 48.

[28] Kight, "Catfish Research Expanding at Mississippi State University," 20.

[29] "State Researchers Find Tasty Use for Catfish," Mississippi State University Memo, 4 September, 1987. Mississippi, MAFES Vertical File, Mississippi State University Archives, Mitchell Memorial Library, Mississippi State, Mississippi.

[30] Ibid.

[31] Ibid.

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not just chicken.[32] The sausage signified food scientists' desires and faith in science to transform the catfish into anything they wanted, something marketable that was unlike anything found swimming.

Not everyone loved the new farm-raised catfish flavor. In 1987, travel and food writers Michael and Jane Stern observed, "Only river catfish, prowling on the bottom, grow the muscles to taste right…pond-raised ones, who lead a pampered life of luxury, are wan."[33] Some consumers liked the flavor that wild environments imbued the wild fish. Others didn't know the difference. Hank Stoddard a veterinarian and catfish farmer in Florida observed, "I didn't believe there was a difference at first. But a lot of old timers believed there was a difference, and by now I can taste it too. It's kind of like the difference between beef and deer. There is a wilder, gamier taste to river catfish." But was just not a flavor that sold. "Some people prefer a gamier fish, some people prefer a mild fish. The housewives I've talked to don't want a fish that smells or tastes too fishy," he concluded. Although Stoddard did not specify whether the "old timers" were white or black, is does at least indicate that the near tasteless flavor was a new sensation. Chef Stephan Pyles also observed, "Farm-raised catfish has a less earthy flavor. For a real catfish aficionado, it's not quite as good." But again, that wild flavor just was not marketable, and Pyles continued, "It's gotten a new audience because it's not quiet as strong." Food writer Charlotte Balcomb concluded an interview with Stoddard and Pyles by noting, "The results are reliably mild-flavored fish, free from the murky influences of

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[32] Henry Kinnucan, "Economic Effectiveness of Advertising Aquacultural Products: the Case of Catfish," *Journal of Applied Aquaculture*, vol.1 (1991): 26.

[33] Shapiro, "No Mud for the New Catfish," 53.

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bad water, pollution or bad diet. However, some people might find farm-raised catfish too bland."[34] Some consumers wanted taste, but they wouldn't find it in the new crop.

Other cookbook writers implied that the fish was a somewhat ostracized food, not one that all southerners could agree upon. In 1986, Camille Glenn's *The Heritage of Southern Cooking* including a recipe of pan-fried crappie with the note, "Of all the freshwater fish in the South, crappie and bass (small- and largemouth) are the finest—at least, the finest to fry coated in cornmeal. They are the fisherman's kind of fish—fresh, moist, and tender on the inside, and hot, crunchy, and crisp on the outside." Glenn included a variation of the recipe for catfish, but wrote, "If you insist upon eating catfish, pan-fry it this way, but you need to skin it first."[35] Glenn's tone implied a lack of discernment or an association with necessity that had long plagued the fish's image. His words suggested catfish was not a particularly delectable and that if individuals "insisted" on eating it, their palates were somehow faulty. Glenn's book demonstrates the limitations of the idealized image catfish producers hoped to construct. Despite what many Americans both in and out of the South were beginning to tell themselves, the catfish was not a universally beloved fish.

The work of food writers and land-grant researchers was not enough to change the fish's image. Catfish proponents thus found investment in a major marketing effort a necessity. In 1985 three catfish feed mill in Mississippi, Producers Feed, Delta Western,

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[34] Charlotte V. Balcomb, "Catfish Finally Swimming in Mainstream," *The Orlando Sentinel*, April 2, 1987,

[35] Camille Glenn, *The Heritage of Southern Cooking* (New York: Workman Publishers, 1986), 199.

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and MFC Service, began the American Catfish Institute (later became The Catfish Institute or TCI) to spearhead their promotional campaign. With six dollars from every ton of feed sold from the three feed mills, the agency had three objectives: to increase farmed catfish consumption, to raise awareness of the product, and to improve the image and attitudes consumers held regarding the fish.[36] To reach these objectives, the agency employed hired advertising firms improve the marketability of the crop. In 1986, TCI hired the Richards Group based out of Dallas, one of the premier advertising firms in the United States. As the advertising agency developed campaigns and conducted market research, TCI hired the public relations companies to conduct promotional drives and stay in contact with numerous media outlets. These public relations company sent out information on farm-raised catfish to cooking and talk shows, newspapers reporters, and food writers.

One of TCI's longest-standing techniques has been to introduce cooks to new ways to prepare farmed cats. Changing consumer perceptions of the fish meant to change the way it had been primarily consumed, that is outdoors in either fried or stewed form. One of the first the Catfish Institute's cookbooks, entitled *Fishing for Compliments*, called the farm-raised catfish a "Southern secret" that was now "popping up all over the country in some of today's most sophisticated cafés and eateries—including many of your kitchens!" Americans were in on the secret and "are rediscovering this old friend,"

[36] Terry Hanson, "Marketing Strategies of the Catfish Institute, 1985-2001" AEC Staff Report 2002-004, November 2002, 3, Mississippi State University Special Collections, Mitchell Memorial Library, Starkville, MS.

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the cookbook asserted.[37] If catfish was a "secret," it was due to the stigma that the catfish reeled in with it. In the United States the catfish was not a secret, it was for many a maligned fish. By the 1990s, however, TCI framed the farmed fish as both old and new. The farmed cat was not an "old friend" or a "secret," it was a new aquacultural product.

Could a name change be the best answer? In the 1980s, although the CFA seriously considered a name change, not all agreed. "I'm glad they rejected it. I think it's an honest approach to say 'this is what it is and we hope you'll try it.' If you put a fancy name on something, it shows that you don't really believe in it," Paul Williams, president of the Georgia Aquaculture Association, observed in 1986.[38] But some other observers thought a name change was a good idea. In 1988 an owner of a graphic design company in Houston, McKenzie Oerting, told *New York Times* reporter Berkeley Rice, "If Florida can change the name of mullet to 'Lisa,' why doesn't Mississippi change the name of catfish to 'Tiffany?' I like it. It sounds rich."[39] Rice went to Belzoni to attend the 1988 World Catfish Festival where he asked attendees what they thought of a possible name change too. There Rice encountered Mississippians who had attended the festival for years, and who already knew the virtues of farm-raised catfish. Rice recounted, "When a New York reporter timorously asked a local man what he thought about changing the name, he reacted with incredulity. 'Only some idiot Yankee would ask such a damn-fool question,' he said - and resumed his attack on a heaping platter of coleslaw, hush puppies

[37] *Fishing For Compliments: Cooking with Catfish*, The Catfish Institute, 1987, 1.

[38] "Producers Want to Create Decent Image for the Catfish," *The Tuscaloosa News*, 21 December, 1986, 36A.

[39] Rice, "A Lowly Fish Goes Upscale."

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and down-home, deep-fried catfish."[40] Although Oerting believed that the catfish's marketability could improve through a name change, some Mississippians like the hungry man thought it foolish.

By 1987, more southern politicians began jumping on the catfish bandwagon. To bolster the image of the fish, policymakers like Mississippi Representative and future Secretary of Agriculture Mike Espy began pushing for a "National Catfish Day."[41] Espy had the economy in mind and argued, "National Catfish Day means jobs."[42] For him the holiday was "not simply a ceremonial or commemorative bill," but an economic move aimed to help ease the farm crisis in his state. "My district, the second District of Mississippi, produces nearly 85 percent of the U.S. domestic market, this alternative crop is especially important," he told his peers. Espy reminded the House the national unemployment rate stood at 6.3 percent while the Mississippi Delta's particularly uneasy rate of 17 percent in 1987.[43] Espy grounded his argument for the holiday in its potential to vitalize the public profile of the crop. As he indicated to the House, "I believe National Catfish Day will bring due recognition to the new image of catfish and the growing industry of farm-raised catfish." Espy reminded his audience the animal was "not a bottom dweller as was its ancestors, but a superior fish, fed soybean meal, corn, fish

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[40] Ibid.

[41] "National Catfish Day," *Congressional Record*, 100th Cong., 1st sess., Congressional Record 133, (June 19, 1987): no. 101, H 3397.

[42] Ibid.

[43] Ibid.

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meal, vitamins, and minerals in clean, freshwater ponds."[44] From this perspective, the holiday would help the farm-raised cat combat poverty and improve the agricultural economy of the Mississippi Delta.

Others echoed the Mississippi representative's economic argument. "At first glance, some Members [sic] thought this was a frivolous resolution," Mervyn Dymally a Trinidadian congressman from California stated. "But…it is a very important resolution," he continued, "and it focuses on the question, not only of a very edible product, but jobs for the people of the Second District of Mississippi in particular, and the State of Mississippi in general, and indeed, across the country."[45] Moved by Espy's arguments on the crop's potential and the economic importance of its makeover, Dymally admitted, "I am prepared now, Mr. Speaker, to come out of the closet and state that I do eat catfish."[46] Dymally could now be proud of his gastronomic choices.

As the bill passed through the House, the holiday found support in the Senate. On June 19, 1987, Howell Heflin of Alabama praised the economic benefits of the industry. "In these times of economic crisis for the agricultural industry, fish is the only agricultural product in America where demand is greater than supply," Helfin stated. Like Espy, Helfin praised the animal itself: "With such an impressive economic resume and a taste that is second to none, catfish is well on the way to becoming a national favorite."[47] On June 22, 1987, Congress passed the resolution to instate June 25th as "National

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[44] Ibid.

[45] Ibid.

[46] Ibid

[47] Ibid.

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Catfish Day." While catfish producers coveted the recognition they gained from a national holiday, they were not content on only relying on the government as their sole promotional machine. Even as legislators like Espy, Dymally, and Heflin argued for a federal stake in the catfish's makeover, the industry turned to its marketing agency to do the heavy lifting in making the animal a desirable product.

The catfish's ideological transformation was not limited to the South. TCI wanted to tap the tough seafood market in the Northeast. In 1989, the agency and the feed manufacturers it represented believed Northeasterners viewed the fish in a negative light. "People up here still think catfish are the ugly old things that Huck Finn pulled off the bottom of the Mississippi…" Sam Hinote, an executive at Delta Pride Catfish, one of the major farmed catfish processing companies, observed. The idea of Mark Twain's classic character utilizing the muddy Mississippi for food, at least for Hinote, was not a good image. It conjured notions of a hungry southern child and his black companion's subsistence from and dependence on a filthy landscape. "If we had the image of, say, rainbow trout, we'd be selling billions of pounds, not millions," Hinote told a newspaper reporter in 1989. Indeed, many Americans associated trout with crystal clear waters cascading off of mountains, not slow moving warm muddy waters. Bill Allen the president of TCI, took advantage of consumer fears of other fish in other environments by observing, "The thing about catfish is, it's raised in well water and fed on pellets of soybean and cornmeal that are certified free of toxins…With all the concern about ocean pollution, the time for catfish should be perfect."[48] Armed with a new clean agricultural

[48] Alan Cooperman, "Recipes for Success: Catfish Farmers Lure New Englanders," *The Post-Standard*, March 27, 1989.

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face that helped shed the image of subsistence and blackness, the industry wanted to tap into the Northeastern seafood market.

Onlookers continued to observe the catfish's dramatic transformation. "Catfish is the Cinderella of seafood, transformed by science from a bewhiskered, muddy-tasting, bottom-feeding wild creating into a cultured and cultivated delicacy," *The New York Times* claimed in 1989.[49] The transformation from muddy and wild to bland and domesticated warranted the dramatic observations, but the old notions of the catfish still lingered. By the 1980s, however, chefs celebrated southern poverty as a badge of honor, as something that all southern regardless of race wore.

As chefs began to offer the fish in upscale restaurant a confusion of the fish's presence in the southern past began to muddy. Chefs, home cooks, and food writers refashioned the wild cat's image associated with poverty and subsistence into something noble, and something that everyone could love. In 1989, Chef Frank Stitt in Birmingham, Alabama told the *New York Times* that there was still a stigma or "lingering prejudice" of catfish, but the reporter added that the chef liked "the irony" of serving what he deemed "a peasant food with the same respect as salmon and snapper." [50] In some ways, as chefs like Stitt sat the fish down at the welcome table, it's appearance both changed pervasive attitudes of the animal while allowing it to hold on to it's old image.

By the 1980s, the crop was visible and readily available to consumers all year long, and home cooks and cookbook writers took notice. Often these southern cookbook

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[49]Gail Forman, "Catfish Have Achieved Upward Mobility," *The New York Times,* February 1, 1989

[50] Ibid.

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writers observed how aquaculture made catfish a desirable food. “As a bottom-feeder, line-caught catfish have frequently been shunned by many people, but now that most catfish are farm raised [sic], attitudes have changed,” Louis Osteen, a revered chef from Anderson, South Carolina, wrote in one of his cookbooks.[51] Moreover, aquaculture collapsed time, weather, and season. “An additional advantage of today’s aquaculture is the availability of fresh catfish throughout all the seasons.”[52] The “advantage of aquaculture” thus did more than make catfish available year-round.[53] The advantage of aquaculture, made catfish readily available, and it certainly changed the waterscapes in which catfish lived and ate. Farm pond waters certainly were not cold rushing waters crashing through and down mountains, but the enclosed waterscape ensured an image of agricultural mastery over the catfish. It made it a worthy food for the masses as well.

Cookbooks celebrated the novelty of the new fish while holding on to the notion that southerners always loved it. In the 1989, *Southern Living*’s *Annual Recipes Cookbook* devoted a section to catfish entitled “Catfish—Old Favorite, New Ways.” The section provided readers with recipes like Spicy Catfish Amandine, Microwave Catfish, and Catfish with Cream Cheese Stuffing. *Southern Living* emphasized the newness of the fish. “Aquaculture, the practice of farming live fish in a controlled environment, pushed the farm-raised catfish to culinary prominence,” *Southern Living* noted. “This growing environment (in contrast to an uncontrolled pond or lake) lends a mild flavor and

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[51] Louis Osteen, *Louis Osteen’s Charleston Cuisine: Recipes from a Lowcountry Chef* (Chapel Hill, NC : Algonquin Books of Chapel Hill, 1999), 64.

[52] Ibid.

[53] Ibid.

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improved texture to the farm-raised catfish that can be harvested year-round," the cookbook's authors continued. Because of this whole new environment and notion of control, "this mild-flavored, nutritious old favorite is popping up on restaurant menus across the country."[54] Yet citing the fish as an "old favorite" conjured the notion that it was always popular. *Southern Living* disregarded this distinction when it observed that the fish's popularity arose due to aquaculture and its new flavor.

TCI marketed the crop as and American and Southern food with worldwide appeal. In 1990 the Catfish Institute produced "Catfish: The World Tour," in which it took readers on a culinary trip around the globe. New Yorker food stylist Roscoe Bestill, who grew up eating catfish in South Carolina, developed the cookbook's internationally inspired recipes over several months in 1989.[55] Bestill made the catfish the globetrotter's culinary travel companion. "The world has taken notice. You can't keep a good thing secret very long. So today, from Mexico to Norway, and from Africa to Hawaii, Mississippi Prime farm-raised catfish is a sophisticated traveler,"[56] the booklet claimed. "Catfish: The World Tour" foregrounded the newness of the farm-raised catfish while ignoring wild catfish's longstanding place in the foodways of several of the regions it highlighted. This was a concerted effort by the organization to broaden the appeal of farm-raised catfish by emphasizing its versatility over and above that of its wild-caught cousin. "By combining the finest culinary traditions from around the world with tender,

[54] *Southern Living 1989 Annual Recipes* (Birmingham, Ala.: Oxmoor House, 1989), 52.

[55] Mike McCall, "The Catfish Institute Launches 'World Tour,'" *The Catfish Journal*, June 1990, 9.

[56] *Catfish: The World Tour* (Madison, MS: The Catfish Institute, 1990), 4.

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mild flavored farm-raised catfish, we hope to surprise and satisfy catfish lovers, old and new," TCI's president Bill Allen claimed. Refined and well-traveled consumers could eat the catfish without sacrificing their sense of taste.

Taste and production was key to the fish's rise, but TCI wanted to improve the appeal of the catfish by introducing consumers to convenience. They focused on improving the image of the fish by selling more cosmopolitan convenience products. In 1991, Delta Pride Catfish, one of the most successful catfish processing company during the period introduced consumers to their International Classics line. "Our new International Classics lines shows that catfish can be both cosmopolitan and convenient," Delta Pride's president Larry Joiner stated.[57] The added value lines varied in differing styles of breaded catfish fillets. The "Far East" line, for example, featured "Oriental herbs and spices with a light breading of crispy Japanese style bread crumbs and sesame seeds," while the "Old Mexico" line offered convenience-seeking home cooks fillets coated in a "blend of cheeses and ground corn crumbs." Each four-ounce portion was 240 calories, 16 grams of protein, and 17 grams of fat, and each portion could be quickly prepared in minutes at home.[58] Delta Pride's new line brought international flavor to consumer kitchens, and each convenient fillet was a homogenized, carefully portion-controlled take on global cuisine. While the flavors of the world could broaden the fish's appeal to cultured consumers, TCI and its constituent processors decided to ground the fish's image in a specific place: the Mississippi Delta.

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[57] "Delta Pride is Pitching 'International Classics' Line," *The Catfish Journal*, June 1991, 15.

[58] Ibid.

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TCI's marketing conjured the notion of place to the perfect farm-raised catfish. By 1991, the agency dropped the Mississippi Prime logo, of which it had used since the late 1980s, and switched to "Mississippi Farm-Raised Catfish." Confusion among consumers about the old logo abounded. "We've talked to processors and there is some consumer perception that Mississippi Prime is a brand, and it's not a brand," said Allen.[59] While Mississippi Prime was not a brand, TCI used the designation to sell a sense of a place and the explicit connections between the fish and the locales where farmers primarily grew the fish, namely Mississippi. The old Mississippi Prime logo and its successor encouraged consumers to connect the relatively new farm product with a state that held a long, troubled, but increasingly romanticized agricultural past. The catfish itself would play a key role in that reinvention.

There were also practical reasons to associate the fish with Mississippi. For one most farmed catfish came from the state, and Mississippi farmers paid for TCI's advertising campaign. Bill Allen stated, "As long as Mississippi feed mills are paying the bill then TCI will continue to use Mississippi in its promotions."[60] Although feed mills from other states did not financially support the agency, Allen insisted, "The Catfish Institute is not a closed society," a likely reference to *Mississippi: The Closed Society,* James Silver's famous study on the state's race relations.[61] TCI sold Mississippi as much

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[59] "TCI Planning Major 1 Promotion," *The Catfish Journal*, March 1991, 5.

[60] "Industrywide [sic] marketing plan proposed," *The Catfish Journal,* April 1991, 30

[61] Ibid.

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as it sold catfish. "We want to be promoted like the Florida Citrus seal or Idaho Potato," said Allen in 1991.[62]

As industry stakeholders tried to improve the catfish' image by attaching it to a classier image, they nonetheless hoped to maintain its downhome appeal. This was a critical element of their strategy in making sure the catfish was something for everyone, and to strengthen the notion that the animal had always brought people together. Catfish farmers also did not want to lose their traditional consumers. TCI started a seemingly grassroots movements for those who adored catfish. Sometime in the late 1980s, the Catfish Institute started the Loyal Order of Catfish Lovers. "Catfish lovers can unite," *the New York Times* flippantly observed in 1989.[63] Membership cost five bucks, and member perks included a yearlong subscription to their rag, the *Mississippi Prime Times*, a welcome kit, a "highly-collectable" Loyal Order button, instructions on a secret handshake, recipes, and a profile of a "celebrity catfish lover."[64] Lovers could even show off their pride by driving around town with a bumper sticker that read, "Honk If You Like Catfish!"[65]

The Loyal Order evoked another side of the Catfish Institute's multifaceted marketing agenda: the definition of catfish lovers as special, unique, and outside of mainstream culinary paths. It also played into the catfish mythos as huckster, a fish with

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[62] "TCI Planning Major 1991 Promotion," *The Catfish Journal*, March 1991, 5.

[63] Florence Fabricant, "Food Notes," *The New York Times*, July 26, 1989.

[64] "Loyal Order of Catfish Lovers Wants You!!" Catfish Subject File, Mississippi Department of History and Archives, Jackson, MS.

[65] Ibid.

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personality, and suggested that those who liked the fish as food and the catfish as a character could celebrate the animal as well as celebrated their own unique sensibilities. Liking the catfish could be a sort of club, and this exclusivity, could be seen as comic, fun-loving catfish hobbyist. Unlike before the farm-raised catfish when exclusivity of catfish consumption could signal depravity. By 1990, while the Catfish Institutes major campaigns targeted a national audience with wide appeal, the Loyal Order marketed to those who may have long cherished the fish, or wanted to be apart of a club that capitalized on the long tradition of the catfish image as an animal with a big personality. In 1990, New Yorker, Guy Durham attended the World Catfish Festival after entering a Loyal Order limerick contest. A New Yorker winning the contest demonstrates the gospel of the farm-raised catfish moved well beyond the "traditional" southern region. The crop had a southern image, but its appeal was far more wide reaching. The grand prize was an all expense paid trip to Belzoni to attend the annual celebration. "I think this is great," the New Yorker gushed at the festival.[66] Moreover, the marketing effort demonstrated the Institutes savvy to target a segmented consumer base, and to not alienate traditional catfish consumers, who may have the badge of catfish consumer with pride.

The Loyal Order solicited celebrities to promote their aquacultural product as well. In 1991, the Order honored actor Burt Reynolds as a "Celebrity Catfish Lover of the Month." The Order claimed that Reynolds was the ideal candidate for the honor, "Because of his lifelong devotion to the Southern staple." Reynolds' image in the media was already firmly situated with ideas of southernness. After all, he had played

[66] "World Catfish Festival Draw 40,00 to Belzoni," *The Catfish Journal*, May 1990, 12.

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southerners in some of his most famous films, including *Smokey and the Bandit* and *Deliverance*, films that reinforced the southern distinctiveness.[67] Reynolds association with notions of southernness was not lost on most. Reynolds too affirmed his love of the catfish and connected it to southernness. "I was born in Georgia and grew up in Florida, two places that are loaded with catfish," Reynolds stated. "Catfish is one of those foods that tastes great, not matter how you cook it."[68] Interestingly Reynolds was not born in Georgia at all, he was born in Lansing, Michigan. His family moved to Florida when he was child, but his fictitious story reaffirmed the animal's connection to a region, mythic or not.[69] It is possible that the Order stuffed some words in the actor's mouth. But Reynolds, who was born in 1936, most likely consumed wild rather than farmed cats growing up, if he did so at all. Reynolds's proclamation thus embodied two contradictory messages. As TCI both sold the farmed raised catfish as something completely different than the wild fish, and at the same the same as the wild fish, their efforts revealed their concerted efforts to make the fish resoundingly marketable. Unlike arm of the Loyal Order, TCI continued to promote the fish as fit for those with refined tastes.

TCI hired Lee Bailey, well-known southern hospitality connoisseur, to drive home this second point. "Farm-raised catfish fits right in with my style," he stated. "It

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[67] For more information about images of the South in film, see: Allison Graham, "Rednecks, White Sheets, and Blue States: The Persistence of Regionalism in the Politics of Hollywood," ed. Matthew Lassiter, in *The Myth of Southern Exceptionalism*, ed. Joseph Crespino (New York: Oxford University Press, 2010).

[68] "Burt Reynolds to Spice Up National Catfish Month," *The Catfish Journal*, August 1991, 2.

[69] James Robert Parish, *The Hollywood Book of Extravagance: The Totally Infamous, Mostly Disastrous, and Always Compelling Excesses of America's Film and TV Idols* (Hoboken, NJ: John Wiley, 2007), 47-49.

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has a fresh, almost sweet taste, and can be prepared quickly and easily. When cooking catfish, just a little effort makes an impressive meal." Bailey's credentials as a southern tastemaker were impeccable, with books like *Southern Food and Plantation Houses* and *Country Weekend* under his belt.[70] *The New York Times* described Bailey as "an expert on the stylish life," insisting that "well before Martha Stewart, Mr. Bailey produced attractive books about how to entertain that drew much of their appeal from making glamorous cooking and presentation seem accessible to the uninitiated."[71] Bailey was vogue.

TCI hoped to associate Bailey's sensibilities with the farmed catfish, and hired him as a spokesman to travel the US and promote the fish. In 1991, Bailey was set to go on a marketing tour for the crop, which included a brochure entitled, "Lee Baily's The Fish with Impeccable Taste." TCI saw Bailey's promotion as a golden opportunity. "We're delighted that Lee Bailey will lend his culinary expertise and reputation to help spread the good word about Mississippi farm-raised catfish," Bill Allen told the *Catfish Journal* in 1991. He concluded, "His style and flair, whether it comes from cooking or just enjoying life, are perfectly suited to our product and our goals for 1991."[72] It was clear that the marketing agency wanted to ensure that consumers knew the catfish could be gourmet.

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[70] Lee Bailey, *Lee Bailey's Country Weekends* (New York: Random House Value Publishing, 1997); Lee Bailey, *Lee Bailey's Southern Food and Plantation Houses: Favorite Natchez Recipes* (New York: C.N. Potter, 1990).

[71] Eric Pace, "Lee Bailey, Expert on Cooking and Entertaining, is Dead at 76," *The New York Times*, October 17, 2003.

[72] "Lee Bailey, Author and Food Authority, Will Promote Catfish," *The Catfish Journal*, June 1991, 23.

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TCI tried to create a sophisticated image of the fish while holding on to ideas of southern myth. Tagged as the "biggest fish story ever told," the Catfish Institute told consumers they had been told a big fat lie. TCI asserted that this was the fish story: the catfish and those that consumed were lowbrow and had indiscriminate sensibilities. But as they noted, the catfish was "carefully bred and tended," reared "in ponds on a gourmet diet of natural grains and proteins."[73] TCI told a fish story too. The crop they tried to market was nothing like the catfish caught in the wild. They connected the two fish as if they were the same, when they were in fact completely different. They sold the South and the past, but they also reminded consumers that myth making had done them a great misfortune. The wild and the past did not necessarily match the new farm-raised fish. TCI told consumers that they ate a controlled, clean, and a classy fish. A fish that nonetheless had always been a part of the Southern past. Or so they hoped consumers would believe.

TCI advertising was innovative and caught the attention of international advertising associations. In 1991, the Association of Magazine Media (AMM) recognized the Catfish Institute as one of twenty-five finalists nominated for a Kelly Award, a prestigious advertising prize. TCI's competition included ads from global companies like Nike and Porsche, amounting to more than 350,000 print advertisements circulated in the United States in 1990. The AMM's acknowledgement of the TCI campaign demonstrated more than just the fact that the group created eye-catching advertisements. It further showed that TCI's advertising of the formerly contemptible bottom-feeder was innovative in and of itself. "We try to convince the consumer that catfish is a delicacy

[73] The Catfish Institute advert. Catfish Festival Subject File, Belzoni Public Library.

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and that it is extremely versatile and healthy. Our other objective is to help the catfish farmer to get rid of his fish," stated Gena Garrison, the art director for the Richards Group advertising firm stated 1991.[74] TCI in fact received much attention for the fact that they marketed catfish. "Most of the other products represented there were more mainstream products. Catfish is not your average orange juice or car account. We definitely got a lot of attention," Garrison observed. For the AMM, this idea may have been too novel to ignore.

Other groups helped reinforce the notion that all southerners had always like the fish and had been maligned for their decisions. In 1991, the Jackson Mississippi's Junior League published a cookbook that highlighted the fish's transformation and its connection to the South. "For a long while, the catfish-that poor old bottom feeding scavenger-garnered little if any respect outside the Southland," the cookbook claimed. But through aquaculture farmers produced a, "cleaner, healthier" catfish "with more eye-appeal." What's more, "The catfish is finally getting the respect it deserves-the respect that we Southerners have been giving it all along," the book claimed.[75]

Other cookbooks highlighted the fish's appeal to bring folks together. Sarah Belk wrote, "Catfish is one of those foods whose basic goodness transcends all economic and social levels. Catfish suppers-complete with hush puppies, fries, coleslaw and plenty of iced tea-create a 'get down' camaraderie that is as warm and genuine as Southern

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[74] Ouida Drinkwater, "The Catfish Institute, Ad Agency Cited in Kelly Awards," *The Catfish Journal*, June 1991, 21.

[75] Junior League of Mississippi, *Come On In! Recipes from the Junior League of Jackson Mississippi* (Jackson: Junior League of Mississippi, 1991), 80

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hospitality itself."[76] Harkening to nostalgia, these contemporary southern and community cookbooks highlighted a homogenized, friendly, and egalitarian past.

By the early 1990s fast-food companies took a chance with catfish too. Wendy's and Church's Chicken introduced a catfish sandwich at that time.[77] Even global fast-food leader McDonald's began selling a "Crispy Catfish Sandwich."[78] The food chain that has most forcefully brought the effects of globalization down on local foodways and was once deemed their most powerful enemy stated wanted in on the catfish too. "We're excited about the catfish sandwich. We know catfish has strong regional appeal," stated John Charlesworth, McDonald's vice president for the Nashville region. Charlesworth further observed that the Crispy Catfish Sandwich, a pre-breaded 2.3-ounce deep-fried fillet with lettuce and sauce on a "home-style bun" with the choice of adding a "spicy Cajun sauce," represented "a good nutritional alternative." [79] The fast food giant—associated with unhealthy choices and poor diet—tried to take advantage of the healthful image that the farm-raised catfish industry sold.[80] Although the farm-raised catfish made headways into the industrial fast food market, it still held appeal that was undeniably downhome.

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[76] Rick McDaniel*, An Irresistible History of Southern Food: Four Centuries of Black-Eyed Peas, Collard Greens, and Whole Hog Barbeque* (Charleston: The History Press, 2010), 71.

[77] "Aqua Group Planning New Value Added Operations," *The Catfish Journal*, May 1990, pg.9.

[78] "Catfish Making McSplash," *Hattiesburg American*, 20 April, 1991, Catfish Farming Vertical File, University of Southern Mississippi Special Collections, Hattiesburg, Mississippi.

[79] "McDonald's Testing Catfish in 214 Restaurants," *The Catfish Journal*, March 1991, 1.

[80] Ibid.

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TCI was proud of their ability to transform the catfish's image. In 1996, Bill Allen observed that once the catfish, "Was thought of as a low-class fish, a bottom-dwelling fish, a scavenger fish. Today, it's really a whole different product and a whole different business."[81] TCI understood that the material and sensorial changes of the fish were essential components the shifting attitudes toward the fish. That's why the quality of the fish was so important to its flavor. Larry Copeland, a reporter for the *Philadelphia Inquirer* observed, "Industry leaders realize that if their standards slip, and off-tasting fish makes it to market, they would have to contend once again with catfish's bad old reputation as a muddy-tasting fish." Which never fully ceased to exist as Sean Brock and John T. Edge observed in *Mind of the Chef* episode "Louisiana." Allen agreed and remarked on the founding of TCI, stating, "We were formed to elevated the image of the product." Howard F. Clarke, senior chef-instructor at the Culinary Institute of American in New York told the *Philadelphia Enquirer* in 1996 the crop was "Gaining in popularity, there's no question about it," due to changes in its body, environment, and flavor. Despite this change, he continued, "But there's still some of that old image left, that catfish was what you ate when your daddy couldn't catch anything else."[82] Yet this notion of the catfish as a fish that daddy brought home because he "couldn't catch anything else" still had immense appeal.

Between the 1970s and the 1990s, eating catfish, because it was the farmed kind, became readily acceptable, if not downright noble. That story conjured struggle, and the

[81] Larry Copeland, "Catfish Farmer Hold the Answer," *The Philadelphia Inquirer*, November 15, 1996, A01.

[82] Ibid.

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ability to overcome adversity. "The South's most celebrated fish goes from pond to plate—swimmingly," Denise Gee wrote in *Southern Living* in 1997.[83] "If there were an official Southern fish, the catfish would be it," wrote Rick McDaniel in *An Irresistible History of Southern Food: Four Centuries of Black-Eyed Peas, Collard Greens & Whole Hog Barbeque*. Yet the fish section in McDaniel's cookbook included a picture that may have been taken sometime at the early twentieth century, featuring two white men proudly displaying a mess of fish they caught. None were catfish.[84]

Not all cooks romanticized the farm-raised catfish, however. Nathaliee Dupree's 2001 cookbook *Savoring Savannah* included a recipe for Southern Fried Catfish Fillets and a note on catfish. Much like many other authors, Dupree acknowledged that the fish was "once scorned as a lowly 'bottom-feeder." She observed that the "whiskered fish slowly began to gain acceptance as its sweet, tender meat and cooking versatility were discovered." Unlike other authors, Dupree took note of the fish's long absence from many southerners' tables. It was not a fish living outside history as a static, ahistorical object. "Georgia and South Carolina, however, virtually ignored the catfish in cookbooks until the mid-twentieth century when catfish farms were developed throughout the South and the fish's popularity grew across the country," she wrote.[85] Dupree's writing thus acknowledged the power of aquaculture.

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[83] Denise Gee, "The Lure of Catfish," *Southern Living*, April 1997, 146, Catfish Vertical File, Belzoni Public Library, Belzoni, MS.

[84] McDaniel, *An Irresistible History of Southern Food,* 72.

[85] Nathalie Dupree, *Savoring Savannah: Feasts from the Low County* (Berkeley: Ten Speed Press, 2001) 113.

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That mythos of the wild catfish is attached to contemporary notions of southern authenticity. John T. Edge observed that at Taylor Grocery in Taylor, Mississippi, "Politicos and starlets, musicians and writers, adventuresome gourmands and just plains folks; they came by the carload, by the busload even, intent on tasting something authentic, something real, something that smacked of Mississippi," Edge observed in his classic 2007 *Southern Belly* He noted that no one knew when Taylor Grocery started serving catfish, but that most people think it was in the early 1970s. This made sense. After the 1960s, catfish houses popped up across the South, as the southern catfish industry became vertically integrated and needed outlets to sell the catfish. As southern food writers like Edge wrote about the egalitarian connotations of the food, this was a product of a material, sensorial, and ideological makeover of the fish.

Other food writers echoed likewise ignoring distinctions between elite and poor eating habits, and a celebration of poverty and of humility became a part of the celebration of southern culture. "No fish is as common across the region as the catfish, and no fish has captured the imaginations or embedded itself so thoroughly in our culture as has the humble, bewhiskered catfish," Paul and Angela Knipple wrote.[86] The embeddedness of the catfish into southern culture was not accident. It was from the work of farmers, lobbyists, and marketers that helped southerners, in and out of the South, to embrace the fish that had long negative connotations.

The catfish had undeniable appeal and southern food writers. In recent years, young southern food writers have invoked memories of friends and family when

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[86] Paul and Angela Knipple, *Catfish* (Chapel Hill: University of North Carolina Press, 2015), 5.

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describing the importance of eating catfish. “Catfish is the taste of home,” the Knipples wrote in *Catfish*.[87] In 2014, Laura Houston Santhanam wrote a short piece entitled ““Fried Catfish Gatherings Tighten Miss. Family Ties,” in which she recounted the memories she shared with her family in a catfish house in Tupelo, Mississippi. She wrote, “For decades, generations of my family gathered over plates piled high with freshly fried, farm-raised fare at catfish houses scattered across northeast Mississippi to make good on a promise made to my Granny’s daddy. Before he died, he asked his children that no matter how many miles separated all of them, they would never grow apart.” Santhanam and her family made a heart-warming tradition out of eating farm-raised cats commercial spaces. Catfish tied them together just as catfish marketers had claimed the food had always done. “All salivated at the prospect of relishing that first taste of home — catfish — at one of several catfish houses in or near the county,” Santhanam wrote. [88] The flavor of farm-raised catfish conjured the deepest sentimental memories of place and space, of home.

The catfish, be it farm-bred or wild and regardless of species, has taken on the status as one of the most undeniably southern fishes in existence. Little by little, flavor, environment, technology, and southern became entwined in every sinew of the catfish. In and through agro-industrial vessel, southerners and Americans alike can meet their memories of the past—especially a reimagined southern-ness—and feel friendly, safe,

[87] Ibid.

[88] Laura Houston Santhanam, "Fried Catfish Gatherings Tighten Miss. Family Ties," *American Food Roots*, June 19, 2014, accessed February 10, 2016, http://www.americanfoodroots.com/50-states/fried-catfish-gatherings-tighten-miss-family-ties/.

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and wholesome. Some suggest that the catfish, in essence, may be apart of every southerner too. "Southerners almost take for granted the special status they've bestowed on catfish; it's tied irrevocably to our DNA," wrote Paul and Angela Knipple in their 2015 cookbook simply entitled *Catfish*.[89]

An improved flavor and an uplifted image were imperative for the industry to rise and grow. In the early 1990s, Henry Kinnucan, an agricultural economist at Auburn, found the most important perceptions that shaped the fish's popularity related to its flavor, the absence of a fishy taste, nutrition, and connections to socioeconomic variables. The economist argued that an effective way to change consumer attitudes on the catfish was to stress the flavor of the fish and pond culture.[90] Negative attitudes toward the fish stemmed from consumers' attitudes toward wild and muddy flavors.[91] Through a material, sensorial, an ideological makeover occurred and the fish swam across race and class consumption trends.

A dramatic shift occurred in the catfish consumer base with the catfish makeover. This becomes most apparent when comparing seafood consumption statistics between the 1970s and the end of the twentieth century. As the farm-raised catfish changed in flavor and smell, and became more readily available in the marketplace and in restaurants, the fish's marketability swelled. As more and more Americans consumed the catfish, and a greater number of whites, and wealthier as well as more educated folks ate it. In the

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[89] Paul and Angela Knipple, *Catfish* (Chapel Hill: University of North Carolina Press, 2015), 5.

[90] Henry W. Kinnucan and Meenakshi Venkateswaran, "Economic Effectiveness of Advertising Aquacultural Products:," *Journal of Applied Aquaculture* 1, no. 1 (1991): 26.

[91] Ibid.

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1970s, catfish consumers were more likely to be poorer, less educated, and predominately African American. There statistics indicated that in 1969, African Americans consumed about 1.08 lbs of catfish annually, compared to whites with 0.20lbs. Twenty years later, more white Americans with higher educational and income levels emerged as major catfish consumers.[92] The major shifts in the makeup of consumers, not only reveals the prevalence of the fish on the market but signals a major shift in perceptions of the fish itself.[93]

On the national marketplace, the fish's success hinged on its flavor and the elaborate processes of making and remaking the farm-raised cat with new and improved images. The catfish belonged to everyone. The fish's nine lives revealed how authors, cooks, farmers, and industry boosters approached memory, identity, place, and the senses to promote the crop. Popular portrayals of the catfish have been contradictory and multifaceted, and they demonstrate the subjectivity of perception in relation to the senses, identity, and memory. An analysis of the farm-raised catfish's image in newspapers, cookbooks, and magazines bears witness to how Americans have repeatedly constructed, deconstructed, and reconstructed their understandings of their history along with the cat. The industry deployed various methods, from the circulation of new recipes, the manufacture of new value added convenience foods, to circulation of extensive prints ads in newspapers and magazines, in a concerted effort to change the catfish's image and

[92] Lynn E. Dellenbarger, Alvin R. Schupp, Paula August, "Household Consumption of Catfish in Louisiana by Product Type," *Journal of Food Products Marketing*, vol. 3 (1996): 38, 43.

[93] Lynn E. Dellenbarger, Alvin R. Schupp, Paula August, "Household Consumption of Catfish in Louisiana by Product Type," *Journal of Food Products Marketing* 3 (1996): 38, 43.

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increase consumption. It was an image that would have made the NMFS proud. From fine dining to poverty culture, everyone from suburban mothers in their local grocery store to truckers at a rural barbeque shack met a new version of the southern past with the engineered agro-industrial fish body.

These new images did not come without a cost. The idea that people made stronger ties with friends, family, and strangers as they met over plates of farm-raised catfish took hold at the expense of the animal's history, distinct place in regional foodways, and the oppressive and violent history that made it poor man's food in the first place. This is not to say that white southerners did not consume the fish before the farm-raised industry. Rather white Americans, in and out of the South, told themselves new stories about the farm-raised catfish. This storytelling contributed to a reimaging of the past that flattened and romanticized the humble fish and in turn erased the racial and class violence tethered to a white supremacist southern society that tied blackness and poverty to the fish before the rise of the industry. Within the context of broader changes in ideas of southernness, the industry transformed the animal into a materially, sensorially, and ideologically appetizing fish. The transformation of the catfish was a critical element to broader changes in perceptions of southernness and southern identity that allowed for the modest fish to turn into haute cuisine.

Before the rise of the industrial fish, catfish represented social and economic stratifications in American society. But even as the industry grew, economic and social inequality continued to live through the catfish. While stakeholders tried to erase the catfish's ugly past, in other ways the fish continued to that represented a world for the have nots. For workers, many of whom were African American women, the farm-raised

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catfish represented tyranny while providing sustenance through low wage work. The growth and expansion of the farmed catfish industry affected the lives of workers who killed, dismembered, and froze the fish on a daily basis. By the 1990s, the catfish still embodied inequality, but it wasn't found at the dinner table, it was found on the lines of production. The suffering that workers endured on the production lines weren't muddy it was crystal clear.

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CHAPTER VI

"IT'S THE PLANTATION MENTALITY BROUGHT INTO THE BUILDING": THE CATFISH LABOR DILEMNIA

In 1983, after traveling through the Mississippi Delta to investigate the farm-raised catfish industry, Maggie Lewis, a reporter for the *Christian Science Monitor* concluded, "The coming of the catfish means something different to whites and blacks." She discovered that white farmers who could "afford to go into this high-risk business could make their fortune," but found that poor black Deltans mostly just got to gut fish on the kill line. "It may not be what you want," Joe Adams of the Emergency Land Fund, a group devoted to turning the tide of African American land loss, told Lewis. That was just the reality of the 1980s. Amid a national farm crisis and high unemployment rates nearing twenty-five percent in the region, Charles Bannerman director of the black economic development organization Delta Enterprise told the reporter, "People are saying 'we ought to own the farms' and I agree," but that they also say, "I'll take *a* job any day over *no* job." As compared to elite white farmers who praised the farmed cat as a harbinger of agricultural diversity and increased income, Lewis, Adams, and Bannerman were much less enthusiastic. "It is another phase in the demise of the black farmer," Bannerman somberly remarked.[406]

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[406] Maggie Lewis, "Sunbelt Economy Doesn't Shine on the Delta," *The Christian Science Monitor*, January 6, 1983, Author added emphasis.

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For years, catching and eating catfish assuaged poverty, but as the farm-raised industry grew and processing became vital to its success in the 1970s and 1980s, killing and handling farmed catfish provided poor rural landless people with "a chance at a regular wage."[407] The poor, who may have been the primary consumers of the wild fish before the rise of the aquacultural enterprise, became an integral part in ensuring the farmed catfish got to the consumers' plate. Workers were essential in the marketability and success of the industry. They knew it. The workers pursuit for better wages, better working conditions, and respect culminated in the 1990 Delta Pride Catfish Strike in Indianola, Mississippi, the largest labor strike in the state's history.[408]

This chapter reveals a short multilayered labor history of the catfish industry with a particular focus on the Delta Pride event. It shows the culture of Delta Pride in the late 1980s and early 1990s and reveals the multitude of stresses and pressures related to the nature of processing farm-raised catfish that made it particularly difficult work. Workers blamed the physical and temporal stresses of farm-raised catfish processing on the culture and history of the Mississippi Delta. The strikers and union claimed the "plantation mentality" persisted.[409] Although workers described their plight as a localized experience

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[407] Lewis, "Sunbelt Economy Doesn't Shine on the Delta."

[408] Candice Ellis, *"Pickets in the Land of Catfish": The African American Labor Rights Struggle in the Catfish Industry of the Mississippi Delta, 1965-1990,* Master's thesis, University of Florida, 2012, 6.

[409] Laurie B. Green describes the mentality as, "referred simultaneously to racist attitudes among whites and perceived fear and dependency among other African Americans." To read more about the mentality see, Laurie B. Green, *Battling the Plantation Mentality: Memphis and the Black Freedom Struggle* (Chapel Hill: University of North Carolina Press, 2007), 2. Cobb's assertion that the exploitative fashion of catfish processing was less the continuation of the "plantation mentality" and a reflection of what was going as in the United States needs further analysis. Although the catfish industry faced price stability and decreasing prices for a few years in the late 1980s, it was booming industry. It was not a slow growth industry by any means. Further, while the plantation mentality may not be an apt description of workers or management, but the term was a powerful rhetorical tool for the strikers.

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based on the long legacy of white and black agricultural labor relations, they revealed the realities that food production workers faced on a daily basis across the nation: they were cheap and replaceable. The Delta Pride strike exposes the harsh realities of food production in the United States in the 1980s and 1990s. The process to create the farm-raised catfish that supposedly tasted so good resulted from a lot of hard work, and the blood and sweat of workers. Consumers, who enjoyed the farm-raised catfish, ostensibly ate the suffering of hundreds of poorly treated and poorly paid workers. As the farmed catfish took on a whitewashed face, it masked the inequalities that continued to live in the fish.

Labor and processing was an essential component to the material, sensorial, and ideological catfish makeover. Farmers were not the only ones affected by flavor and the sensitivity of expert taste testers' bodies. The subjective and sensitive palates of professional flavor evaluators and the erratic and unpredictable nature of off-flavor meant that undesirable flavors slowed down or even halted production. When workers stage their walkout in 1990, within this temporal uncertainty, workers separated muscle tissue from the catfish skeleton, and turned a recognizable animal into a familiar piece of meat for the dinner table. From pond to plant to plate, the farm-raised catfish industry removed the various acts of work associated to catfishing for the average consumer who did not fish for the cat. Consumers paid for convenience.

As a result, the nature of the fish became more foreign to the average American consumer as farmers and workers converted the farmed animal into a consumer product

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devoid of eyeballs, whiskers, skin, and usually bones.[410] As a part of a gruesome yet crucial step on the bloody kill line, the last living beings catfish saw beyond themselves were the faces and the be-gloved hands of mostly African American females workers. The workers' hands stunned the fish and decapitated them with band saws. Other workers then gutted, skinned, and filleted the fish. Then others froze, some breaded, and then more packaged the finished products. Like the sting of electricity that left the animal limp, the monotonous fast pace on the factory floor left some employees' limbs numb, immobile. The processing workers were not just the last people to see the fish alive, they were the last to see the products before truckers took the fish to wholesalers, grocery stores, and restaurants. By the 1980s, eating farm-raised catfish meant consuming a lot of work: that of farmers, scientists, taste testers, and workers.

Like the poultry industry, vertical integration allowed meatpacking companies to slash costs. Although farmers and processors benefited, workers encountered increasingly unsafe working condition and lower wages. Worker experienced a higher likelihood of becoming injured on the job too.[411] By the 1980s, the major pork and beef processing companies moved to rural locations where labor was plentiful and cheap. The catfish industry mimicked the meatpacking industry, which the "Big 3" companies, ConAgra, IBP, and Cargill, dominated.[412] Due to the restructuring of the industry during the 1970s

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[410] For more on the how industrialized food systems isolate consumers from nature, see: William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton & Co.,1992).

[411] Michael Broadway, " From City to Countryside: Recent Changes in the Structure and Location of the Meat and Fish-Processing Industries," in Donald Stull and Michael Broadway, eds., *Any Way You Cut It: Meat Processing and Small-Town America* (Lawrence: University Press of Kansas, 1995), 25.

[412] Steve Bjerklie, "On the Horns of a Dilemma: The U.S. Meat and Poultry Industry," in *Any Way You Cut It*, ed. by Donald Stull, et al. (Lawrence: University of Kansas Press, 1995), 43.

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and 1980s, most workers eschewed labor organizing for various reasons, and their jobs became increasingly dangerous as well as low paying.[413]

In 1981 catfish farmers opened Delta Pride Catfish Inc., to process and market the farm-raised fish. Within the decade, the cooperative processed about 35 to 40 percent of all catfish sold in the nation and competed against multi-national agribusiness corporations like ConAgra, Hormel, and Prudential.[414] Beginning in 1988, the prices for catfish declined and marked instability in prices. From 1988 to and late 1989, prices had dropped about 15 percent.[415] "The past years have been especially difficult for the farm-raised catfish industry which is facing rising costs, excess processor capacity and softening sales demand," Larry Joiner observed during the strike in 1990.[416] Despite the price instability, the industry proved profitable for those who could manage their ponds, process the fish, and sell a marketable product.

The farm-raised catfish industry developed amid the restructuring of the pork and beef industries. In 1960, Iowa Beef Packers, which eventually became IBP, opened a beef processing plant in Denison, Iowa and as Michael Broadway notes, "revolutionized the industry."[417] Rather than send cattle to cities like Chicago with unionized workforces, IBP processed their products in rural places near farmers. The highly automated factories

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[413] Broadway, "From City to Countryside" 17.

[414] Barbara Holsomback, "Delta Pride Fishes for Higher Profile," *Adweek*, February 5, 1990.

[415] Arthur Brisbane, "Booming Catfish Farm Industry Nets Overproduction, Price Slide," *The Washington Post*, October 21, 1989.

[416] Sarah Campbell, "Strikers Told to Keep Fighting; 'You Can Win,'" *The Clarion Ledger,* September 28, 1990.

[417] Broadway, " From City to Countryside" 22.

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housed disassembly lines, which meant that workers were divided into performing a single task. Experienced butchers were no longer needed, and the middleman was cut out.[418] The labor in the factories also became increasingly filled with diverse, non-union labor. Between the 1970s and the 1980s, IBP's restructured model became the norm for meat processing in the United States.[419]

Vertical integration and the restructuring of the pork and beef industries made processing increasingly dangerous and low paying.[420] Between 1960 and 1990, meatpacking wages fell from fifteen percent above the manufacturing average to twenty percent below. In 1990, companies paid poultry processing workers sixty three percent of what manufacturing jobs paid on average, at roughly $6.84 an hour.[421] Catfish processors made much less, by roughly $2.80. These jobs were also hazardous. By 1990, Bureau of Labor Statistics revealed that 42.4 out 100 full-time meatpacking workers suffered from illnesses and occupational injuries. For poultry processing it was 26.9 out of 100 and for fish processing it was 22.5. For manufacturing in general it was 13.2 out of 100.[422] Despite the technological advancements in each industry, Michael Broadway noted that,

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[418] Ibid., 18.

[419] To read more about IBP, see: Deborah Fink, *Cutting Through the Meatpacking Line: Workers and Change in the Rural Midwest* (Chapel Hill: University of North Carolina Press, 1998)

[420] To read more about the human costs of the beef, pork, and poultry industries, see: Broadway, "From City to Countryside: Recent Changes in the Structure and Location of the Meat and Fish-Processing Industries,"; Deborah Fink, *Cutting into the Meatpacking Line: Workers and Change in the Rural Midwest* (Chapel Hill: University of North Carolina Press, 1998); Steve Striffler, *Chicken: The Dangerous Transformation of America's Favorite Food* (New Haven: Yale University Press, 2005); *Blood, Sweat, and Fear: Workers' Rights in U.S. Meat and Poultry Plants* (Human Rights Watch, 2005).

[421] Broadway, " From City to Countryside," 25.

[422] Ibid., 21.

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"all four industries are subject to some of the most unsafe conditions in the American workplace."[423] In fact technological innovation contributed to the increased efficiency as well as danger of these workplaces.

As wages fell and dangers increased, meat workers sought ways to protect themselves. In the catfish plants of the Deep South, this was particularly challenging. Mississippi was notoriously anti-union, and the nation began to mimic the state's trends. In 1960, Mississippi governor Ross Barnett, well-known racist demagogue, brought two rival regions of the state, the Hills and the Delta, together on issues related to political and economic power, especially in regard to issues at all related to protecting white supremacy. That year, the Barnett administration pushed through a right-to-work amendment. Despite claims that the law would attract industry to the state, it was also a form of labor control.[424] The law and white supremacist civic groups with the assistance of governmental spy agencies like the Mississippi State Sovereignty Commission used economic intimidation to curb African American empowerment and civil rights activity. In Mississippi, labor, political, and economic empowerment were tightly entwined, as work had been a significant way in which whites tried to control black political activity. The right-to-work law was another hurdle that took power away from both black and white workers in the state.

The diagnosis of the state of labor in 1990, simply put, was anemic. Numerous factors braided together: globalization, deindustrialization, rural industrialization coupled

[423] Ibid., 22.

[424] Cobb, *The Most Southern Place on Earth*, 228.

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with the ascent of conservatism, neoliberal policymaking, and deregulation, weakened labor and the strike as a potent tool.[425] Along side these trends during the 1970s, unionization dramatically decreased and the use of the strike quickly waned.[426] President Ronald Reagan's handling of the PATCO strike in 1981 didn't help. Historian Joseph McCartin observed that President Reagan's method of breaking up the PATCO walk out, "Proved devastating for labor."[427] In 1990, the year of the Delta Pride walkout, workers staged forty-three stoppages throughout the nation. In 1980 workers staged 187 strikes, and ten years earlier, 381 stoppages. By 2000, workers across the nation only staged thirty-nine walkouts.[428] These winds, the decline of labor power, rural industrialization, and the legacies of white oppression over black labor in the region created a climate for an explosion of labor activism in the Mississippi Delta in the 1980s and early 1990s.

The first efforts to unionize catfish processing workers occurred in the Prudential's Wellfed Catfish plant in Isola, Mississippi. The workers made minimum wage, regardless of experience or tenure at a plant. Along with low wages, in the 1980s, the work became significantly more dangerous. Sarah White, who worked at Delta Pride Catfish (DPC), one of the most prominent processing companies during the 1980s and the 1990s, observed, "That meant an out-stretch of more workers…the more money they made, the worser the treatment became for the workers…. And they process and process

[425] Joseph McCartin, "Solvents of Solidarity: Political Economy, Collective Action, and the Crisis of Organized Labor, 1968-2005," in *Rethinking U.S. Labor History*, ed. Donna T. Haverty-Stacke and Daniel Walkowitz (New York: Continuum International Publishing Group, 2010), 224

[426] Ibid., 225.

[427] Ibid., 230.

[428] Ibid., 224.

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and process and the plant grew bigger and bigger and bigger, the more problems we encountered."[429] With the hurry-ups came increased injury. Workers confronted developed carpal tunnel syndrome, a common, but debilitating repetitive motion injury that leaves hands, wrists, and arms numb and crippled. The unpleasant and distressing conditions and culture of the workplace exacerbated the frustrations workers encountered as poor single mothers who barely survived on the minimum wage they earned. Many women had to turn to the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and additional sources of money and food. Taken together the low wages and management's lack of respect and consideration for workers belied the importance of their labor.

During the hot summer months of 1981, Wellfed's workers walked the picket line. Most Wellfed workers wanted union representation. The National Labor Relation Board (NLRB) needed only forty-four of the 144 workers to sign union cards to hold an election. But within two days of circulating the cards, 108 people signed.[430] The recalcitrant management did not recognized Local 1224, despite workers winning UFCW representation through NLRB elections. The workers decided to go on strike. One striker, Virginia Pitts, said, "I've never felt so good. One day we'll get what we deserve. If not for me, then for those that will come later."[431] In 1985, Wellfed closed its doors. Many blamed poor labor relations for the closing. The organizing drive and strike, in spite of

[429] Sarah White interview by author, Moorhead, Mississippi, February 15, 2012.

[430] Jim Estrin, "Pickets in the Land of Catfish" *The Clarion Ledger*, August 16, 1981.

[431] Ibid.

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the closing, demonstrated that workers could in fact unionize. Other catfish processing plants in the Delta immediately followed suit, but for most, it took time.

In 1985, the Delta Pride plant in Indianola began to feel the rumblings of worker solidarity. Sarah White and Mary Young decided to organize the plant. This decision did not come easy. Young's husband, a union member in another industry, encouraged her. One day, Young approached her friend and co-worker White about her idea. "You know, we knew a little about unions," White remembered, "but you didn't talk about unionizing, not down in the South with this old type plant."[432] But Young begged White to help, and her arguments seemed rational. White remembered Young declaring, "Sarah, it don't make no sense. I don't care what we do, how we do it. They harass us. They fire us. They don't want us to go to the restroom… We need to try to organize."[433] Through grassroots undertakings like door-to-door solicitation and regular conversations with coworkers, White, Young, and two other women finally collected enough cards to stage elections in the plant.

The four women spent nearly a year, 1985 to 1986, convincing co-workers to sign union cards and hold NLRB elections to establish a UFCW local in the plant. Delta Pride's management did not capitulate to labor activity without vigorous resistance, however. By the fall of 1986, the company hosted a jovial company barbeque that featured music, prizes, and guest speaker, mayor and civil rights activist, Charles

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[432] Sarah White interview.

[433] Ibid.

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Evers.[434] As "Vote No" antiunion posters flooded the barbeque, Evers urged Delta Pride's workforce to shun unionization. Organizing was not the answer to workplace problems he argued. If Evers's appearance did not convince the predominately African American and female workforce, management tried shock value. They brought in an armored truck, dumped over $100,000 on to a table, and told workers that was all the money they could loose to union dues. Prior to that day's festivities, employees found it impossible to get away from antiunion rhetoric. Whether on their car radio, home stereo, or on the walls of the factory, "Vote No" posters and the antiunion campaign assaulted their senses. Likewise management told workers that the union could lead to "strikes, layoffs, and possibly a plant-closing."[435] The National Labor Relations Board (NLRB) eventually discovered that management fired union supporters and asked their employees to gather intelligence about efforts to organize.[436]

Despite Delta Pride's aggressive efforts to discourage unionization, the workers voted to implement UFCW Local 1529 in the plant. In the winter of 1986, workers voted in the UFCW in close race with 489 votes for the union and 349 against. "This is a tremendous victory not only for the UFCW, but all workers in the Deep South,"[437] UFCW president William H. Wynn proclaimed. Mary Young was enthusiastic too. "The union will make bring about a big change for Delta Pride…the working conditions are

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[434] Peter Perl, "Unionization Wins a Round in South: Unusual Coalition at Catfish Plant Overcomes Opposition," *The Washington Post*, 12 October 1986.

[435] Ibid.

[436] Ibid.

[437] "Catfish Workers Show Pride, Vote Union" *UFCW Action*, November-December 1986, 16-17.

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poor, and the wages are poor. It'll be much better, and we'll have job security," she stated.[438] The union undoubtedly empowered the workers. But trouble brewed just three years later.

In the fall of 1990, new contract negotiations between Local 1529 and Delta Pride came to a standstill. Delta Pride did not negotiate with the union as expected. Pride's Assistant Director of Marketing Carol Anne Sledge stated that the union demanded a contract in which workers received between $5.50 and $10.85 per hour over the new three-year term. For management this was an over-the-top offer, but UFCW spokesperson David Day noted, "There is no question it was a ridiculous proposal. But we never had a chance to amend it."[439] Management instead came to the table with a final offer. Delta Pride offered the workers a contract that included a 6-cent an hour wage increase. The company claimed that, "4.8 percent average wage increase in the first year and pay increases average 35 to 90 cents per hour over the life of the three year contract," which may have looked better on paper.[440] But pay increases paralleled the federal minimum wage increase over the three-year contract period. The union could not accept the offer. "The wages are always bargained down considerably and company officials knew that," Day argued. Despite management's claims that "Delta Pride has bargained in

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[438] Ibid., 17.

[439] Ray Mikell, "Union Says it Made 'Outrageous' Wage Offer Before Strike," *The Delta Democrat Times*, 5 December, 1990.

[440] Larry Joiner, "A Strike Perspective, October 22, 1990," Mike Espy Collection, Catfish Folder, Box 4, Congressional and Political Research Center, Mississippi State University Libraries. Hereafter this collection will be referred to as Espy Papers.

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good faith," they did not give room for further negotiations.[441] It seemed that management wanted the workers to walk out. Sarah White flabbergasted and affronted by Delta Pride's offer, returned to the workers with bad news. "Look, us, at one time we were worse than we were, and are now, and the union made a tremendous difference, and the only way that we are going to show this company that we're not going to go back to no contract, nothing, is to go out on strike," she said.[442] White and the workers felt that they were pushed against a wall. They had no other choice. On September 11, workers voted 410 to 5 against the contract.[443]

On the night of September 12, 1990, White and Young stood outside the Delta Pride catfish processing plant in Indianola. They were nervous; they had no idea what to expect. At midnight, the first official day of the walkout, White worried that no one would show. She confided in Young, "Mary, I don't think these people are going to strike. I just don't know if they're going to strike, Mary."[444] Yet workers showed up ready to walk the picket line and "lines of cars on both sides [of the entrance filled] with people deciding that they were going to go on strike."[445] The strike ended three months later. While workers walked the picket line, they faced the threat of permanently loosing their jobs, violence, pressure from city officials, as well as the threat of poverty and the

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[441] Carol Anne Sledge to Wardell Townsend, October 10, 1990, Catfish Folder, Box 4, Espy Papers.

[442] Ibid.

[443] Carol McPhall, "10 Arrested at Picketed Catfish Plant," *The Clarion Ledger*, September 20, 1990.

[444] Carol Anne Sledge to Wardell Townsend, October 10, 1990, Catfish Folder, Box 4, Espy Papers.

[445] Ibid.

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inability to feed their families. That year, workers walked the picket line. For many it was the very first time.

On the picket line, strikers, police, and local residents clashed into violent outbursts. Rose Turner, a UCFW labor organizer remembered that within a week of the strike, "People would just come up in there and start shooting."[446] Locals shot their guns near the picket line to intimidate the strikers. The workers not only faced hostile locals, but they also encountered the arm of government that was supposed to protect them, the police. During one eruption of violence on the picket line, a police officer assaulted Mary Green and called her a "nigger bitch."[447] Green recounts, "I was picketing. I bent over to pick up my son, and as I was raising back up, a policeman came toward me and starting pulling on me and telling me I was under arrest." She continued, "I pulled my arm away from him. Then he hit me several times on my arm with his billy club and also on my left thigh. I'm having problems with both my arm and my leg. It swells up, then goes down."[448] Green's suffering did not go unnoticed. The violence worked on the side of the workers, and it invigorated their walkout with the racial tenor needed to garner national attention.

The UFCW and strikers saw the police incident as an opportunity to expand their plight to include civil rights and racial discrimination. "Even though it was a bad thing that happened, we used Mary Green, the incident, to show the people in other areas how

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[446] Rose Turner, interview by author, Indianola, Mississippi, February 2, 2012.

[447] "Statement of Mary Green, October 11, 1990," Catfish Folder, Box 4, Espy Papers.

[448] Ibid.

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corrupt the Police Dept. [sic] was, as far as they're in the power structure together. And we was the people outside of it," Sarah White keenly observed.[449] White went on to note that the police were in the pockets of the company. The police did not function as a mechanism to protect citizens, he charged, but as one to protect moneyed interests. "They supposed to represent protection, law, for everybody, but when it came to Delta Pride and those rich stockholders, it didn't mean anything, as far as us as people," White stated.[450] The NAACP took notice and offered help to the strikers.

The reactions of the police, the banks, and even locals, demonstrated that the strikers faced a hostile community. After the incident Indianola's mayor and Delta Pride attorney, Tommy McWilliams quickly cut his losses and resigned from his position in the company. [451] The UFCW president, Phillip L. Immesote observed, "These women and their coworkers are not just fighting one employer. They are fighting an entire community..."[452] The day after the strike, many workers received phone calls from the local bank asking how they were going to pay their loans off or even had their loans called in. "When you have an entire community infrastructure from the mayor to the police to the finance company that holds notes on cars bringing pressure on individuals you really don't have the freedom that we think we have as Americans," said Al Zack

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[449] Mike Flug interview with Sarah White and Margaret, Tape 7, side 2, pg. 6, Sarah White Papers, Carter G. Woodson Library, Chicago, Illinois. Hereafter this collection will be referred to as the White Papers.

[450] Ibid.

[451] "Statement of Phillip L. Immesote," Catfish Folder, Box 4, Espy Papers.

[452] Ibid.

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member of the UFCW in Washington.[453] Like previous civil rights battles in the South, African Americans faced economic intimidation. One reader from Greenville, who objected to a *Clarion Ledger* cartoon that depicted Delta Pride in a negative light, wrote to the paper in support of the catfish firm. Although he claimed that he did not know any stockholders of the plant nor did he own any land, he wrote "Those farmers who contribute to the source of the employment are paying exorbitant prices for the all-inclusive demands of continuing the farming interests, as well as huge interests rates." He concluded, "They are entitled to some reasonable return for their investment of heart, soul, sweat, and tears."[454]

The workers at the plant organized and thus were able empower themselves enough to dispel some aspects of the plantation mentality. Sarah White stated, "Before the union, I thought the company could do anything it wanted to and there was nothing any of us could do about it. The union taught me how to stand up and be proud…They showed us how to stand up and fight for what we believe in."[455] Mary Green noted also vocalized inspiring attitudes, "I'm going to keep fighting for better working conditions and a better way of life…"[456] The union gave the workers some empowerment, strength, and a chance to work as a united front against the company. Some workers may have

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[453] Philip Dine, "Dispute in the Delta: Struggle At Catfish Plant Pits Poor Blacks Against Prosperous Whites," *St. Louis Post Dispatch,* October 8, 1990.

[454] "Delta Strikers Cartoon Was Caustic, Unobjective," *The Clarion Ledger*, October 16, 1990.

[455] "Statement of Sarah C. White, United Food and Commercial Workers Local 1529 employed at Delta Pride Processing, Inc. Before the Labor Braintrust of the Congressional Black Caucus, October 11, 1990," Catfish Folder, Box 4, Espy Papers.

[456] "Statement of Mary Green, United Food and Commercial Workers Local 1529 employed at Delta Pride Processing, Inc. Before the Labor Braintrust of the Congressional Black Caucus, October 11, 1990," Catfish Folder, Box 4, Espy Papers.

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been able to overcome their fears of joining a union and walking the picket line, and the idea of the plantation mentality became an effective tool in the walkout.

The plantation language allowed strikers to sell a particular image of the South. Managers had replaced planters. Factory workers had replaced slaves. The UFCW and the workers brandished the idea of the "plantation mentality," reality of poverty in the Mississippi Delta, and the historical memory of slavery and sharecropping to expose the problems of food processing. Ester May Woods stated, "It's the plantation mentality brought into the building."[457] Sarah White echoed her claims stating, "The plantation mentality, it still exists."[458] Media coverage of the Delta Pride strike highlighted the imagery and rhetoric of the plantation mentality as well. One Clarion Ledger political cartoon depicted company owners looking out at striking workers with the caption, "You know, things were so much simpler back in the days when everything was either 'Yes, Massuh' or 'No, Massuh…'"[459] The workers, the UFCW, and the media illustrated Delta Pride's workplace culture as one cultivated out of the history of agricultural, racial discrimination, violence, and white supremacy in the region.

The historical memory of the South colored union representatives and newspaper reporter's descriptions of the region. Cotton still had a lot of symbolic power. "We're not cotton workers," Douglas Couttee the UFCW Vice President observed, and continued,

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[457] Dine, "Dispute in the Delta: Struggle At Catfish Plant Pits Poor Blacks Against Prosperous Whites."

[458] Philip Dine, "Striker Hopes Daughter Reaps Benefit," *St. Louis Dispatch*, October 8, 1990.

[459] *The Clarion-Ledger* political cartoon, October 8, 1990, *UFCW Action* cover, November-December 1986.

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"That's what they think—we're filleters."[460] For them the South, especially the Mississippi Delta, remained unreconstructed. *Chicago Tribune* reporter Merrill Goozner described the region as, "An area of the country where race and class issues have been virtually indistinguishable since the end of the Civil War."[461] Goozner's interview of Frank Dininger, the regional director of the UFCW observed, "The relationship between here is from the 1800s. They think these people are still working in the cotton fields."[462] Others like Phillip L. Immesote testified to the Black Congressional Caucus about a region stuck in the past. "It is impossible to separate the hopes and dreams of the Delta Pride workers from the conditions that have existed in the Delta for more than 100 years."[463] Joe Price, another UFCW representative stated, "They've switched them from the cotton fields to the catfish plant, and they still regard them as fields hands. It's been the plight of the blacks here for 300 years."[464] The union portrayed a South that functioned in a vacuum. It seemed like Delta Pride function in a static region devoid of economic, social, or political outside influences.

Strikers described their work in terms of place and space, from the cold air-conditioned factory floors to the hot tilled soils of the plantation field. These descriptions were bound to the historical memory of the South as well. Ester May Woods observed, "I

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[460] Sarah Campbell, "Strikers Told to Keep Fighting; 'You Can Win,'" *The Clarion Ledger*, September 28, 1990.

[461] Merrill Goozner, "Mississippi Strike Takes On Civil Rights Characters," *Chicago Tribune*, October 1, 1990.

[462] Goozner, "Mississippi Strike Takes On Civil Rights Characters."

[463] "Statement of Phillip L. Immesote," Catfish Folder, Box 4, Espy Papers.

[464] Ibid.

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try not to see it in that light- but my mind focuses back to the old plantation. This takes the place of the cotton patch. That's the way it seems to me—the wages and the way they work you. They never let up."[465] The connections to place, which conjured the physical and mental abuse within of a specific agricultural system to a new agroindustrial system, tethered the memory to the reality of working in food production in the United States. Workers also juxtaposed the plantation and factory, as to highlight how places like a sterile modern factory can in fact embody the same culture of breaking soil. While Verdell German picketed in front of the Indianola plant she stated, "Now is the time to fight. If we don't fight now, we'll go back into slavery. We'll be working for nothing all our lives."[466] Rose Turner also declared, "These catfish farmers think they can run these farms the way they ran their plantations."[467] In the early 1990s, harkening to the plantation mentality, the workers and union representatives evoked history, place, and region as rhetorical devices to describe the working conditions of the modern meatpacking plant.

The union and the strikers used terms like "slave" to describe the inhumane ways that the company treated them. The term slave also gave insight into the strikers' feelings towards the American social, economic, and political landscape, which revealed hopelessness and the inability for upward mobility due to low wages, dangerous working conditions, and the lack of opportunity in the region. The low wages kept workers

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[465] Dine, "Dispute in the Delta: Struggle At Catfish Plant Pits Poor Blacks Against Prosperous Whites."

[466] Ibid.

[467] Lee May, "Southern Catfish Workers Charge They're Being Crippled by Their Jobs," *Los Angeles Times*, March 25, 1990.

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trapped in what felt like perpetual servitude. One worker noted that the company treated them like they were less than human, like dogs.[468] "We're treated like slaves, not like humans," another catfish worker declared, which reminded onlookers that the workers' conditions and pay were such that they had limited choices.[469] Another worker noted, "We do our best…we expect to be paid a decent wage, and we don't want to be treated like slaves."[470] To the nation that the South remained unchanged.

During the walkout, some Delta Pride's stockholders reaffirmed the image that they were refashioned plantation masters. Turner Arant appeared on the National Broadcasting Corporation's (NBC) *Today Show* and showed off his estate in Indianola. Arant described the wealth and happiness that catfish had brought to him. "The catfish industry has been good to me," said Arant. Arant's proud affluence conflicted with his words. "When you're prosperous, work hard and are blessed by the Lord, it's better to be low key. You want to be liked by people, not have them envious of you."[471] As author Richard Schweid *has* pointed out, *Today Show* viewers could easily connect Arant to a southern past plantation past. Schweid wrote that Arant walked "around his ponds, discoursing in a baronial fashion, showing the camera crew through his huge home, and

[468] Richard Schweid, "Delta Strike: Civil Rights or Just Plain Economics? : Labor: Moving from cotton to catfish has saved many a farmer from foreclosure, but there may still be a touch of the old plantation involved," *Los Angeles Times*, November 18, 1990.

[469] May, "Southern Catfish Workers Charge They're Being Crippled by Their Jobs."

[470] Donna St. George, "More Than Money at Root of Catfish Worker Strike," *The Seattle Times*, December 10, 1990.

[471] Ibid.

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avowing that the catfish had been good to him."[472] Arant's affable nature and enthusiastic support of the industry backfired. The *Today Show* producers juxtaposed his life to a Delta Pride worker who could barely pay her rent in a part of Indianola where the shacks were "virtually on top of one another, many nearly falling down."[473] Delta Pride stockholders, incensed by Arant's display of wealth to a national audience, quickly dispatched him and replaced him with Harold Potter.[474] After the incident, the company had to conduct damage control. Larry Joiner, Delta Pride's president stated, "Contrary to recent media coverage, Delta Pride's average stockholders farm 300 acres of catfish ponds. Many incurred heavy debt to get into business and most live simple lives…theirs is often an untold story."[475] The ways in which the company handled Arant's faux pas was similar to the way it handled the strike. Throughout the walkout, the company issued various statements, but never combated the workers head on. For the most part, they kept an outwardly cool disposition, and handled the strike in a business-like manner.

On September 22, 1990, the NAACP staged a national boycott of Delta Pride catfish products. With national publicity that bolstered the strikers' cause, more than thirty grocery stores in St. Louis and Atlanta, including National Super Markets, Big Star, and Dierberg's Markets, boycotted Delta Pride products. Although Larry Joiner, Delta Pride's president stated, "We have seen no significant decrease in our statewide sales,"

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[472] Schweid, *Catfish in the Delta*, 128.

[473] Dine, "Dispute in the Delta: Struggle At Catfish Plant Pits Poor Blacks Against Prosperous Whites."

[474] Schweid, *Catfish in the Delta*, 128.

[475] Joiner, Strike Perspective, 22 October, 1990, Catfish Folder, Box 4, Espy Papers.

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the company saw a 5 percent decrease in sales throughout the nation.[476] Through publicity and pressure from the UFCW, roughly one month before the strike ended, 1,222 grocery stores joined the boycott. This included Delta Pride's largest buyer.[477] The UFCW's boycott demonstrated that consumer political choices could hinder profits.

To promote the boycott the UFCW distributed a leaflet that again employed plantation imagery and tied Delta Pride to antiquated labor practices and racism. The circular entitled, "Do Not Buy Delta Pride Catfish," depicted a cardboard façade of a plantation house in front of a plain factory building.[478] Through this circular, the UFCW and the strikers reinforced the notion the factory was a plantation, and that the farm-raised catfish was, in essence, produced by slaves. The leaflet accused, "Rather than act like the leader in the catfish industry, Delta Pride's management and directors treat the workers, most of whom are black, as of they work on a plantation."[479] Consumers could boycott the products out of moral obligation and outrage against racial discrimination. Frank Dininger observed, "I really think consumers of catfish are people that would be sympathetic with workers' and civil rights issues."[480] Mississippi state Representative George Flagg stated, "I'm not eating another damn catfish from Delta Pride until this thing is over…I wouldn't give a damn if the plant closed down and they sold another

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[476] Ibid.

[477] Nic Paget-Clarke, "Victory at Delta Pride: African-American Catfish Workers Strike Against Plantation Conditions," publication unknown, January 28, 1991, White Papers.

[478] "Do Not Buy Delta Pride Catfish," Catfish Folder, Box 4, Espy Papers.

[479] Ibid.

[480] Sarah Campbell, "NAACP Chief Joins Call for Delta Pride Boycott," *The Clarion Ledger*, September 22, 1990,

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catfish."[481] The boycotts not only reflected consumer choices, but also revealed the strong connection between civil rights movement activism and tactics in the Delta Pride strike.

Political leaders and other unions chastised Delta Pride. In a letter to Local 1529, civil rights leader Jesse Jackson predicted that Americans would be outraged once they knew how Delta Pride treated their workers. He claimed, "Your cause is generating more than sympathy; it is rousing anger against those who have turned a plant into a plantation. That anger will be heard resoundingly at checkout counters across America ringing us [sic] 'No Sale' on Delta Pride products."[482] Jackson was not the only one bringing national attention to Indianola. St. Louis alderman Ken Jones drove to the Delta to talk with members of an auto union who supported the catfish processing workers. He brought emotional support as well as offerings of food, clothing, and money.[483] Various church groups and the Coalition of Black Trade Unionists also held fundraisers for the Delta strikers. Together, this attention shows that the Delta Pride strike was not just a local event, and touched the hearts of others who felt that they needed to fight the injustices in the Mississippi Delta.

Line workers were not the only catfish workers enmeshed in the union fight. Taste testers whose work was completely different from workers on the kill line, created uncertainty for organizing workers. In 1990, Stanley Marshall "the supervisor of flavor"

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[481] Carole Lawes, "Espy Backs Striking Catfish Plant Workers," *The Clarion Ledger*, November 4, 1990.

[482] Doreen Craig, "Catfish Strike Fallout Spreads," Catfish Industry Subject File, Congressional and Political Research Center, Mississippi State University Libraries.

[483] Philip Dine, "St. Louisians Become Involved In Strike," *St. Louis Dispatch*, December 24, 1990.

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at Delta Pride's was the "ultimate arbitrator of what is fit and what is funky." He was the main human quality control measure who gave the green light on the flavor of the farm-raised catfish. Before a farmer could harvest a pond for processing, they took fish samples to the plant. Stanley microwaved the fish, smelled the cook flesh, put it in his mouth, chewed, and then spit it out. Many times he concluded, "It's off."[484]

Off-flavor and the flavor evaluator's work to ensure that the blandest non-fishy fish landed on consumer dinner plates created a mercurial work schedule for workers. Depending on the time of year, farmers could produce fish that reeked of off-flavor. Sometimes evaluators like Stanley concluded that near ninety percent of farmed fish that came across their lips tasted unacceptably off. "We can't let any bad catfish out…Not with the way so many people already feel about the catfish," Stanley told the *Chicago Tribune* in 1989.[485] Stanley's labor tied to the work of his sensitive palate, which was an important part of the sensorial catfish makeover, made few farmers happy, especially if they contested Stanley's opinion. Farmers could not sell off-flavored fish to plants, and had to wait for their fish to be on-flavor. "Sometimes the difference between on and off can be so subtle that only Marshall can tell," the *Washington Post* observed. Farmers criticized the "final arbitrator," though Marshall understood his job as an imperative part of the success of the catfish industry.[486] While upset farmers gripped about flavor testers gustatory and olfactory skills, off-flavored fish obstructed the flow of fish too.

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[484] William Booth, "Flavor Arbiter's Test of Filet is in the Bouquet," *The Washington Post*, August 22, 1992.

[485] Mary Schmich, "In Mississippi, Catfish Offer a Way Out of Muddy Waters," *The Chicago Tribune*, January 29, 1989.

[486] Ibid.

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The notion of slavery connected to a larger issue, one that was not just bound to the laborious process of dismembering catfish, but to time. The nature of standards in the farm-raised industry to ensure that the blandest fish entered consumer mouths caused inconsistent work in the factory. The process of creating a subjectively tasteless fish based on what professional taste testers deemed marketable had many costs for farmers, but for workers it created a temporal constant and their time was not their own. Some parts of the year, workers could process fish for over eight hours a day, other times they had to clock out and wait for fish. The nature of off-flavor cost workers' certainty and predictability in a factory setting.

If there were no marketable catfish at the factory, supervisors required workers to clock out and wait. Sarah White, a former catfish processing worker in the 1980s and 1990s as well as union leader, remembered, "We would have to wait for the farmers to get out there and get their hand out of the water. So they would make us not get on the clock. So there were hours and hours and hours where they weren't paying us. They would say, 'Hey, if you leave and go home, then you will be fired.'"[487] Some workers waited up to three hours off the clock for farmers to bring marketable fish to the plant. The time and wages that workers lost to erratic production was staggering. The UFCW distributed forms to members so they could calculate these "potential losses." In 1990, the union threatened to represent the employees and go to court, citing violation of the Fair Labor Standards Act. Joe Crump, a UFCW organizer discovered that some 1,800 workers signed these forms. Crump calculated, "1,800 times 12 hours, times $6 an hour

[487] Sarah White interview..

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(at time-and-a-half), times 150 weeks. Wow that's a lot of catfish!"[488] Clocking in and out of the plant because the lack of fish was only one problem with the temporality of off-flavor.

Despite the outpouring of support for the strikers, it could not stop management from hiring replacements. Illinois Rep. Charles Hayes, a member of the Black Congressional Caucus, vigilantly supported the workers. On October 11, 1990, at the Black Caucus Labor Braintrust Hearing, Hayes expressed his exasperation toward the anti-labor policies and the support it garnered from the government. "I personally am sick and tired of union busting efforts, fully supported by the current Bush Administration as well as in the past by the Reagan Administration," said Hayes. He continued, "It is now clearly fashionable for employers to hire scabs instead of fairly negotiating with its workers…and it is a disgrace."[489] Within the first three weeks of the strike, Delta Pride announced that they had hired 653 permanent replacement workers.[490] The UFCW and the strikers accused the company of playing mind-games. UFCW spokesperson Neil Lattimore declared, "They are just making these statements to try to discourage

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[488] Joe Crump, "The Pressure is On: Organizing Without the NLRB," *Labor Research Review*, vol. 1, no. 18 (1991): 39.

[489] "Opening Statement of Congressman Charles A. Hayes Before the Congressional Black Caucus Labor Braintrust Hearing on the Striking Delta Catfish Workers, October 11, 1990," Catfish Folder, Box 4, Espy Papers.

[490] The Associated Press, "Catfish Plant Hires 653 New Workers," *The Sun Herald*, 9 October 1990, Catfish Industry Subject File, Congressional and Political Research Center, Mississippi State University Libraries.

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workers."[491] A month and a half into the strike, Delta Pride hired almost 800 replacements.[492]

Delta Pride not only discouraged the strikers, but the company used its actions to assert that the factory was in fact a decent place to work. Delta Pride's Carolyn Ann Sledge, asked reporters, "How could we have filled those jobs in such short order if this was such a bad place to work?"[493] Sledge did not divulge or refer to the high unemployment rates that plagued the region. Unlike Sledge, Joe Price an Atlanta UFCW representative, observed, "A lot of the replacement workers are people from places 25 or 30 miles away where they have 20 percent unemployment, so these folks are willing to cross the picket line and take a job for $3.50 an hour."[494] The company also had to hire more replacement workers because processing fish required skilled. Despite bringing in scabs, management found that production decreased by forty percent.[495] Delta Pride justified low wages because they claimed that processing fish required little skill. The new workers could just not process as many fish, however. Lower production despite the high rates of replacements, buttressed workers' claims that they deserved better wages. Their experience and skill were indispensable traits in their ability to be fast and efficient workers.

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[491] "Catfish Plant Hires 653 New Workers," *The Sun Herald*, 9 October 1990.

[492] Roland Klose, "Processing Falls; Firms Deny Drop Due to Strike," *The Commercial Appeal*, October 23, 1990.

[493] Donna St. George, "More Than Money at Root of Catfish Worker Strike," *The Seattle Times*, December 10, 1990.

[494] Schweid, "Delta Strike: Civil Rights or Just Plain Economics?"

[495] Philip Dine, "Catfish Strike Could Boost Labor in 90s," *St. Louis Dispatch*, December 24, 1990.

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But even the most experienced and skilled workers could not avoid the pitfalls of working quickly. The increased risk of developing repetitive motion injuries, coupled with higher production rates, wore out workers. Margaret Hollins claimed, "If they can't work fast enough because of problems with their hands. If you don't meet your quota, they will fire you."[496] Management expected workers to filleted over 800 pounds a day. Many people accidentally cut themselves. Some lost fingers.[497] Delta Pride was well aware of the market and the need to exploit workers for the fullest economic potential for their products.

In 1990, before Delta Pride workers staged the walk out, the Occupational Safety and Health Administration (OSHA) found that the plant did not have ergonomic equipment that protected workers from cumulative trauma disorders.[498] In addition, OSHA found that the Delta Pride did not have preventative measures in place to reduce risk of ailments like carpel tunnel syndrome, proper management of medical issues, and failed to handle injuries promptly. The company also failed to properly record on site injuries, and illnesses of the workers.[499] When employee Margaret Hollins complained that her arms and hands ached, the company waited three weeks before sending her to see a doctor who diagnosed her with tendonitis. Hollins visited the company nurse who simply gave her Advil and sent her back to her station. When she could no longer work

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[496] Statement of Margaret Hollins, Member, Local 1529, United Food & Commercial Workers Union, On Strike at Delta Pride Catfish, Inc., Indianola, Miss. to the Labor Braintrust of the Congressional Black Caucus, October 11, 1990," Catfish Folder, Box 4, Espy Papers.

[497] Mike Alexander, "Fishy Business," *Southern Exposure* 19 (Fall 1991): 13.

[498] Schweid, Catf*ish and the Delta,* 125.

[499] Ibid.

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the disassembly line, Hollins washed pans and picked up trash outside the factory. She observed that in the hot summers, management used light duty as a backdoor way to jettisoning the injured. “The reason they send you outside is that they want you to quit…they think that you’ll quit if you’re out there working in the 100-degree sun,” Hollins concluded.[500] OSHA initially fined Delta Pride $32,800, but later reduced it to $12,500.[501] Although OSHA eventually reduced the fines, the citations demonstrate that the company lacked safety precautions that caused so many workers to become crippled or injured.

Workers earned wages that hit minimum wage or barely above the standard and although their labor was considered cheap, their bodies paid the price. Mary Walker, who suffered from carpel tunnel syndrome, worked at the plant for eight years but only made $4.40 per hour in 1990, only ninety cents above the minimum wage.[502] Many DPC processing workers were single mothers. Despite working full time, many found it difficult to support their children. The average full-time worker made roughly $4.05 an hour and about $8,424 a year. The poverty line set by the government for a single parent with three children was $12,675 a year.[503]

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[500] “Statement of Margaret Hollins, Member, Local 1529, United Food & Commercial Workers Union, On Strike at Delta Pride Catfish, Inc., Indianola, Miss. to the Labor Braintrust of the Congressional Black Caucus, October 11, 1990,” Catfish Folder, Box 4, Espy Papers.

[501] Ibid.

[502] Schweid, “Delta Strike: Civil Rights or Just Plain Economics?”

[503] Peter Kilborn, “Charges of Exploitation Roil a Catfish Plant,” *The New York Times*, December 10, 1990.

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Management claimed that the low wages Delta Pride paid their employees were based on skill level, not race or gender. "Delta Pride's wage scale is based on job classification," Joiner claimed. Joiner told the press, "We are an equal opportunity employer and pay all employees according to where they fit on the wage scale and the number of years they have been with the company." His remarks reaffirmed the notion that much like other meatpacking industries, catfish processing workers' labor was undervalued and that their bodies paid the price. He concluded, "All employees, regardless of their race, sex or religion, are paid according to our wage schedule which is the highest in the farm-raised catfish industry."[504] Regardless of these claims, Delta Pride had to be on the defensive about their wages because the workers, the union, and civil rights organizations claimed that pay was based effected by racial discrimination. The company used color-blind language based on meritocracy, but observers charged this was to continue a legacy of practices based on racial discrimination. If management suffered from the plantation mentality, it was a mentality that was pervasive not just in the South, but was the reality of low-wage work in America: cheap and disposable.

The history of race in the catfish industry can too often cover up another basic, if ironic, reality: while the farm-raised catfish industry created jobs, it wrought poverty. Phillip Immesote observed that poverty was in fact a civil rights issue. "Poverty is the greatest single barrier to these workers being able to exercise the civil and human rights the rest of us enjoy as Americans- and for which countless thousands marched and prayed and struggled," he stated. Immesote's observations were important in understanding the

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[504] "Statement By Delta Pride Catfish, Inc., September 26, 1990," Catfish Folder, Box 4, Espy Papers.

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ways in which economic issues were in fact civil rights issues. But he couched the plight of Delta Pride workers in terms of racial discrimination and a legacy rather than its connections to realities of low wage work in the rest of the United States. The UFCW vice president stated poverty "perpetuated by the plantation mentality that refuses to pay workers their true worth," stated Immesote.[505] Aaron Henry, the president of the Mississippi State Conference of the NAACP, echoed Immesote. Henry declared "plantation mentality of not paying what they are worth, which is why Mississippi is always at the bottom of economic statistics."[506]

The farm-raised catfish industry brought jobs to the Delta, but poverty remained endemic. Many workers had to supplemented their income with welfare. The personnel department in the processing plant had a "welfare forms" area and the department's employees helped workers complete the forms.[507] Georgia Williams, a Women, Infants and Children's program (WIC) Social Worker in Indianola noted, "They're working like everyone else but they can't do it without a supplement."[508] She estimated that roughly 80 percent of WIC recipients were Delta Pride employees. She added somberly, "After working 40 hours a week and you still can't do it, that does something to a person, wouldn't you think?"[509] Despite the psychological ills that poverty caused, the workers

[505] "Statement of Phillip L. Immesote, Vice President United Food & Commercial Workers International Union Before the Labor Braintrust of the Congressional Black Caucus October 11, 1990," Catfish Folder, Box 4, Espy Papers.

[506] "Civil Rights Leaders to Address Rally for Striking Catfish Workers in Mississippi, Indianola," *UFCW News*, September 25, 1990.

[507] Ibid.

[508] Ibid.

[509] *We Do the Work - This Far By Faith*, VHS , Directed by Patrice O'Neil (Berkeley: The Working Group, 1991)

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tried to gain some semblance of empowerment through the union and the ability to bargain for higher wages.

Along with low wages and dangerous working conditions, the basic right to use the bathroom was hotly contested between workers and management. Until 1990, to maintain efficiency and speed, management allotted workers five bathroom breaks a week at five minutes apiece. "The strike was really about the bathrooms," Sarah White even divulged.[510] The bladder and the basic function of the human body was a political issue. "Some women still had to wear Pampers to keep from soiling themselves because they were refused to go to the bathroom. We had six times a week," White remembered.[511] Like other meat-processing industries the bathroom breaks were a hot topic. In the 1970s, OSHA required companies to provide bathroom facilities, but did not explicitly state how employers were to handle bathroom breaks. It was not until 1998 with the publication of Marc Linder's *Void Where Prohibited: Rest Breaks and the Right to Urinate on Company Time,* and the actions of the UFCW that forced OSHA to issue a memorandum that required companies to permit their workers to use the restroom in a timely fashion.[512] Workers in other food processing sectors faced similar situations as the Delta Pride employees. In 1995, managers at a Nabisco plant in California did not allow their workers, many of whom were women, to use the bathroom without a penalty. The workers soiled themselves and some had no other choice but to wear diapers. Some found

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[510] Kristal Brent Zook, "Catfish & Courage," *Essence*, April 2003, 159.

[511] Sarah White interview..

[512] Wilson Warren, *Tied to the Meatpacking Machine: The Midwest and Meatpacking* (Iowa City: University of Iowa Press, 2006), 96.

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that diapers where too expensive, and turned to wadded up toilet paper and Kotex.[513] Many became sick.

The lack of respect the company had for its workers was embodied in the bathroom environment itself. The bathroom stalls did not have doors. White remembered, "Supervisors would come up in there and say, 'Sarah, get up! You need to come back to the line.'"[514] Women had to use coats and other articles of clothing to cover themselves. Charlene Walker told reporter, "Even if you have to go to change your Kotex, you have to tell them that…It's embarrassing, especially to tell a man."[515] In addition, bathroom breaks were only five minutes long, which violated the union contract.[516] After taking off all the equipment one had to wear on the kill line, one hardly had any time left to go to the restroom, put the equipment back on, and come back in five minutes or less. Supervisors kept a watchful eye on their workers to ensure the highest production rates. Although, the regimented bathroom breaks demonstrate an aspect of an efficient and productive industry, for the workers it represented tyranny. One even noted, "At least in the cotton fields, you can go to the bathroom whenever you want."[517] The modern factory represented a more controlled atmosphere that allowed management to readily exploit workers.

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[513] Corey Robin, "Lavatory and Liberty: the Secret History of the Bathroom Break," *Boston Globe*, September 29, 2001.

[514] Ibid.

[515] St. George, "More Than Money at Root of Catfish Worker Strike."

[516] "Statement of Margaret Hollins, Member, Local 1529, United Food & Commercial Workers Union, On Strike at Delta Pride Catfish, Inc., Indianola, Miss. To the Labor Braintrust of the Congressional Black Caucus, October 11, 1990," Catfish Folder, Box 4, Espy Papers.

[517] Dine, "Dispute in the Delta: Struggle At Catfish Plant Pits Poor Blacks Against Prosperous Whites."

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Many of the strikers unified on their plight as poor, black women, demanded respect. Willie Baker, the international vice president of UFCW declared, "It has been one continuous struggle for the workers to gain what we take for granted which is the right to be treated fairly and with dignity."[518] For example, Rose Turner remembered an incident when a worker named Charlene went to speak to her supervisor, Ms. Edna. Charlene told Edna, "You're going to respect me, and I'm going to respect you too."[519] Edna was notorious for chastising workers and disrespecting them. Management used stereotypes of black women's bodies and sexuality. Edna told workers under her, "I'm sick and tired of you'll sitting around and having babies like rabbits," Sarah White remembered. "So she had no respect for us. The management team had no respect for us," she concluded.[520]

The predominately black and female workforce spoke out against the company and made sure that the nation saw the exploitation that they felt everyday. At the special hearing of the Labor Braintrust Committee of the Black Congressional Caucus, White testified. She declared, "We're women and we're trying to stand up for our rights…we're black, we're proud, and we're crying out so somebody will hear us."[521] Just standing before the caucus, the strikers, many of whom were often invisible to American audiences, empowered themselves. But more they drove a powerful message into the

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[518] "Introduction By Willie Baker, Jr., Before the Labor Braintrust of the Congressional Black Caucus, October 11, 1990," Catfish Folder, Box 4, Espy Papers.

[519] Rose Turner interview..

[520] Sarah White interview. .

[521] Caucus Hearing, Catfish Folder, Box 4, Espy Papers.

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minds of Americans. The workers demonstrated that despite American exceptionalist mythos that espoused that hard work paid off, the reality for many American workers was perpetual poverty, the lack of opportunity, and powerlessness.

For most observers became clear that Delta Pride workers were expendable, cheap labor. Rose Walker, an employee at Delta Pride, developed carpel tunnel syndrome on the job. Although the company covered her surgery, she remained disabled. Delta Pride did not let Walker come back to work and she described her treatment in a simple progressive fashion, "They hire you, cripple you, fire you."[522] Management's lack of concern for the workers' well-being was exemplified in the lack of concern for workers' families. White told *St. Louis Post-Dispatch* reporter Philip Dine, "They were always firing us like flies, cursing at us. If you said, 'My baby's sick,' they'd say, 'I don't care who's sick, you come to work or you're fired.'"[523]

The union, civil rights organizations, and the workers understood the motives behind the strike in diverse ways, whether it was for economic justice, civil rights, or both. Phillip Immesote testified to the Black Caucus, "Those who claim it is not a civil rights struggle miss the entire history that has enslaved these workers… just as surely as if they were back on a plantation chopping cotton or sharecroppers enslaved to the land, rather than a master."[524] Others like Southern Christian Leadership Conference's Reverend Joseph Lowery described, "This is an economic justice issue more than it is

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[522] Schweid "Delta Strike: Civil Rights or Just Plain Economics? : Labor: Moving from cotton to catfish has saved many a farmer from foreclosure, but there may still be a touch of the old plantation involved."

[523] Philip Dine, "Striker Hopes Daughter Reaps Benefit," *St. Louis Dispatch*, October 8, 1990.

[524] "Statement of Phillip L. Immesote," Mike Espy Papers, Catfish Folder, Box 4, Congressional and Political Research Center, Mississippi State University Libraries.

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about color…. and the color is green."[525] Some workers also saw their battle through a national lens. "This struggle may be a flagship for the rest of the nation in the struggle for economic justice," Mary Hollins declared.[526] Hollins likewise brought her focus back to her home region and stated, "I truly believe we are fighting for a better living for everyone, not just for our race, but for all working people in the Delta, whatever color they are."[527] The various groups who support the strike may have viewed it in varying illuminations. The diverse understandings of the strike not only represented varying rhetorical tactics, but also demonstrated how workers in the rural Delta embodied labor problems across the United States.

Despite workers and reporters claims, Delta Pride operated like a modern company in the era of globalization. Despite the union's claims of the plantation mentality, the company did not exhibit many signs of paternalism. Larry Joiner emphasized that although the company was a cooperative of farmers, "We have all professional managers, not farmers, and they were never farmers."[528] The managers ruled by time, efficiency, and speed. They regimented breaks. Workers punch in and out of a clock, and they regulated productivity. Managers assigned workers quotes. Delta Pride functioned like many other meat processing companies. Workers exposed a ruthless

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[525] Ray Mikell, "Rally Speakers See Fish Strike Issues in Terms of Race, Economy and Women," *Delta Democrat Times*, September 28, 1990.

[526] Andrea Stone, "Catfish and Picket Lines; Race Issue is Raised in Miss. Strike," *USA Today*, October 31, 1990.

[527] "Statement of Margaret Hollins, Member, Local 1529, United Food & Commercial Workers Union, On Strike at Delta Pride Catfish, Inc., Indianola, Miss." To the Labor Braintrust of the Congressional Black Caucus, October 11, 1990," Catfish Folder, Box 4, Espy Papers.

[528] Kilborn, "Charges of Exploitation Roil at Catfish Plant."

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mentality that symbolized the reality of labor in the 1990s. In many ways, the product was valued more than the worker.

The company upheld an image of professionalism rather than paternalism by refusing to negotiate with other entities beyond the union and the proper governmental agencies like the NLRB. Aaron Henry of the NAACP for example, wrote to Larry Joiner requesting a meeting. In response Joiner wrote, "The NAACP requested a meeting with Delta Pride today which the company declined on the grounds that it continues to have faith that formal contract negotiations with representative from Delta Pride, the UFCW, and a federal mediator are the best means to insure that a solution is achieved that will be acceptable to all parties involved."[529] This is one example of how the company did not necessarily work on a plantation mentality mind set, but rather one that was based on modern management practices.

Throughout the strike, Delta Pride consistently declared, "We continue to offer the highest wages and best benefits package in the farm-raised catfish industry." Workers received five paid holidays, five paid vacation days, health insurance, 100 percent of life insurance, and a Christmas bonus.[530] However, what benefits workers received were not enough for them to pull themselves out of perpetual poverty. Although Pride provided insurance for workers, it did not cover their children and the workers wages enough for many workers to visit doctors regularly. Sarah White remembers that she had to go to a free clinic in Mound Bayou, a town more than an hour away from her home in Moorhead.

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[529] Letter from Larry Joiner to Aaron Henry, September 21, 1990, Catfish Folder, Box 4, Espy Papers.

[530] Moye, *Let the People Decide*, 201.

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She remembered her supervisor telling her and her co-workers, "[She would] tell us she didn't want no one to go to that Mound Bayou clinic. I pay you all enough money. Go to the doctor here in the community." But the problem was that White could not afford the doctor and her children never received the minimal insurance coverage that the plant provided.

The management at Delta Pride eschewed the term, plantation mentality, and accused the union for using confusing and imprecise language to describe the workers' plights. Joiner claimed that he never understood what the plantation mentality signified except that maybe it had something to do with the fact that farmers owned Delta Pride. He stated, "I was never sure of what that meant, other than that we're in an agricultural area and because we're an agricultural coop," said Joiner.[531] He assumed that the UFCW and the strikers used the term as a way to get the public's attention. "The plantation mentality charge, which was made by the union and became the focus of many national stories, was a nice, catchy slogan and nothing more," asserted Joiner.[532] As Joiner points out, the idea of the "plantation mentality" had significant weight and was captivating, but it was more than just a "slogan." The company also realized that the issue of race was a powerful tool use to garner support for the workers and resentment towards Delta Pride. "This is not a racial issue. It is an economic issue," Joiner stated.[533] The workers wielded

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[531] "Joiner: Delta Pride Seeks to Mend Fences With Workers," *Delta Democrat Times,* December 16, 1990, 1.

[532] Ibid.

[533] "Statement by Delta Pride Catfish Inc." September 26, 1990, Catfish Folder, Box 4, Espy Papers.

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the ideas of the southern past to criticize the plight of the workers in a society where production of food was increasingly invisible, but proved exploitative and dangerous.

Nine days before Christmas, on December 14, 1990, citizens of Indianola, Mississippi burst in to a celebration. Shedding tears and sharing laughter, over 900 catfish processing workers celebrated their victory over a three-month long strike against Delta Pride. The UFCW and management finally agreed on a new contract, which included higher pay, longer breaks, and more benefits. The union and workers' ability to win their strike marveled American labor unions. While the strike is exceptional, the context in which the strike bubbled and blew up, was much like the rest of the nation. Everyday, rural meat processing workers enter factories where injury was commonplace. They earned paychecks that barely covered their basic living expenses. Workers in the Delta did face embedded legacies of the denigration of black bodies, and they sought to gain some dignity and respect. For their efforts as Sarah White observed, "it stayed fresh in history for a long time."[534]

Union representatives and observers noted the power of salient yet simple rhetorical devices. An economist observed, "This boycott may have worked because many catfish consumers in urban areas and the South identified with the strikers—rarely the case in such efforts," he said.[535] UFCW representative Al Zack also noted the need for unions to simplify their message to garner national support. "I think one of the lessons of Delta Pride is that unions need to reduce messages to simple, understandable,

[534] White interview.

[535] Dine "Catfish Strike Could Boost Labor in 90s."

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emotional components," Zack said. "Abstract economic arguments or a focus on a company vs. union battle put people to sleep," he observed.[536] Phillip Dine for instance explained, "The moral issues in Mississippi were dramatic enough to draw nationwide attention."[537] One significant reason the union and strikers attracted attention to their cause stemmed from the their usage of historical memory and racialized rhetoric. Despite a national environment where labor power decreased, evocations of slavery to the public, who believed for the most part that it only existed in the past, demonstrates how far removed the public was from the lives of rural meat-processors.

Labor leaders looked at the Delta Pride walkout as a shot in the arm for the movement. "The successful strike by catfish workers here will reverberate far beyond the fish ponds and cotton fields of the Delta…those in the U.S. labor movement contended that the catfish workers' strike may help set a different tone in the 1990s," Dine reported.[538] Although, the workers abilities to unionize and strike, their story was not the typical labor story of the 1990s. Unlike other meatpacking industries that became less organized after the restructuring of the 1970s and the 1980s, workers at Delta Pride bucked the trend. Despite fears that they would lose their jobs workers empowered themselves despite the great odds against them. Regardless of the gains made in the 1990 strike, better pay, longer and more frequent breaks, the nature of the farmed catfish industry continued distress workers.

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[536] Ibid.

[537] Phillip Dine, "Union's Contrasting Battles, Catfish Workers Beat the Odds; Grocery Workers Fell Short," *St. Louis Post-Dispatch*, July 7, 1991.

[538] Dine "Catfish Strike Could Boost Labor in 90s."

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In 1993, when the UFCW Local 1529 and Delta Pride management negotiated for a new contract, the union backed off on increasing wages because management cited financial troubles. The union and management, however, continued to argue over regular work schedules, and Sarah White observed, "The most important issues are about time." Workers schedules were not set for a given week and they did not know when work would begin or end. "You can't plan your life; they are taking all of your time. We asked for weekly schedules. They said no. They aren't the ones who have to arrange child care," White complained.[539]

In 1993, Sarah White aptly observed, "How can this can be called a living?" as catfish processing employees earned paychecks that barely covered their basic living expenses.[540] It was not just a legacy and the contemporary state of labor, but also the reality of farmers', processors', and consumers' cravings for bland flesh. Disembodying nature from the fish was more than just about harnessing its flavor. For farmers, processors, and workers to produce the subjectively bland processed farm-raised catfish as cheaply and quickly as possible meant that especially workers, paid with their bodies and emotional health.

Americans could not ignore the suffering of the women who made their food. What made the Delta Pride strike remarkable was that in an era and region hostile to labor, workers' garner national attention and won the strike. They looked within, empowered themselves, and found the courage to become a visible and audible front. The

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[539] Sarah White, "Delta Pride Issues: Time and Money" *News and Letters*, November 1993, 3.

[540] Ibid.

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workers' voices painted a picture of grim working conditions, both physical and social. The workers' shared their sensory experiences, the dull numb pain of carpel tunnel syndrome, the pains associated with the inability to relieve oneself due to kill line constraints and management's watchful eyes and stopwatches, the gruesome nature of extracting muscle tissue from the catfish's body itself, which quickly numbed workers' hands and arms and enclosed their bodies in foul smells, jarring sounds, and cool damp air of the factory. They described the physical processes that their bodies endured to get catfish on consumers' plates.

As workers sold the historical memory of the South for the nation to consume, the farm-raised catfish industry and others southerners sold a different kind of South to themselves and the rest of the nation. Workers rhetoric relied on the image of a white supremacist southern economy and history that seeped into and entrenched every aspect of Delta Pride culture. Stakeholders of the farm-raised catfish industry, however, tried to jettison any image that their business was backwards, antiquated, or rooted in a long, violent history of work and black exploitation in the Delta. Yet, when the idea of southernness was attached to food, something that filled the spirit with warm energy and memories, workers were ready to take those images by the horn and sell a different kind of South.

The workers drew attention to their story by using local and regional imagery to describe issues that were national in nature. The workers blamed the plantation mentality and southern racism for their low pay and harsh workplace culture, but they articulated problems like poverty, exploitation, and lack of opportunity that low wage, low skill workers faced in many places across the country. The struggles of Delta Pride's

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employees' as framed by the workers themselves, the union, and various media outlets was only a local issue of racial discrimination. The South was what the South had always been: racist and backward. The union and worker's stories may have described their conditions as unique, but their stories are no less important in understanding how a group of women, who were often unseen and unheard by the national media became very visible. Although the Delta Pride strike may seem like a "flash in the pan" event in labor history, it demonstrated the power of workers tactics, reflected national sentiments, and revealed a labor front to the nation that became increasingly diverse terms of race, class, and gender. The production of food was a civil rights and labor issue.

Producing a tasteless, cheap, and southern food had costs, especially for workers. As workers revealed a different side of the farm-raised catfish industry, one that was exploitative rather than an economic boon for an economically depressed region, other issues began to crop up for the industry. In the 1990s, environmentalists began to challenge the sustainability of aquaculture. As more environmentalists critically eyed the farm-raised salmon and shrimp industries, they focused on farmed catfish practices too. Casting a wider net to include the environmental narratives of catch, growing, and eating farm-raised catfish, revealed inequalities and struggles for power that defined an industry based on privilege, and economic and political influence. As the 1990 Delta Pride strike demonstrated, there were costs to cheap labor and workers paid the price. Like the labor story, environmental narratives of catfish since the 1970s reveals that, at times, the health of the consumer and the health of the environment paid a price too.

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CHAPTER VII

NATURAL, POLLUTED, POISONED, THEN PURE: TALS OF CATCHING, PRODUCING, AND EATING CATFISH, 1970-2004

In 1978, the Center for Disease Control (CDC) gave the residents of the small town of Triana, Alabama, some alarming news. The Indian and Tennessee Rivers, which ran next to their homes and from which many poor African American residents pulled out catfish and other animals for food, gushed with dichlorodiphenyltrichloroethane (DDT). "The fish we take out of Indian Creek and the Tennessee River are for food on the table, not trophies on the wall," Triana's mayor, Clyde Foster told the *Washington Post*.[541] It wasn't sport; it was survival. Since long before the Civil War poor whites and African Americans looked to the waterscapes around them for food, as a way to assuage the ill effects of poverty and institutional disenfranchisement. The Tennessee Valley Authority walked through town and knocked on doors, seeking to test the levels of DDT in the catfish that Triana residents had snared in the rivers and brought home. The TVA discovered fish that "contained 50 times the level of DDT the Food and Drug Administration considers carcinogenic." For residents and scientists alike the TVA's reports only confirmed what they could already see and smell. Dr. Ralph Brooks, chief of TVA's Water Quality and Ecology Branch observed, "The levels of DDT are so high that

[541] "Black Mayor Sees Neglect of Blacks in DDT Pollution," *The Washington Post*, February 2, 1979, A17.

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you can actually smell it and you can see clumps of it like rocks on the shore."[542] By the 1970s, for the poor who depended on catfish for survival became a source of sickness.

At precisely the time when middle-class consumers were increasingly buying shrink-wrapped skinned catfish filets in supermarkets across the U.S., the Triana story demonstrated the stark differences between those who caught and ate wild catfish and those who bought and ate farmed fish. By the 1970s, the rise of the farmed cat had taken the class and racial associations assigned to the fish and turned them into questions of what form one ate: wild or farmed. Although the Triana case may have been one glaring instance of highly polluted catfish, it served as a reminder that pollution was indeed a major threat to humans consuming aquatic creatures that dwelled in rivers, streams, and lakes. Those who could afford to buy supposedly pure foods, however, had access. Everyone else who depended on the fish by way of semi-subsistence were left in the mud.

By the 1970s, the difference between catching-and-eating and buying-and-eating became seemingly clear. Farmed fish was clean and consistent. Wild fish was muddy and possibly full of poison. But for close observers of the catfish farming industry, the difference was not so clear and never static. Between 1970s and 2004, the years that catfish farming grew most rapidly in the United States, the perceived benefits of catfish aquaculture vacillated dramatically. The farmed cat moved from being an efficient alternative for polluted and depleted seafood stocks, to being considered a polluter itself, to being on a "green list" of the most sustainable seafood choices on the market. The revolving attitudes toward the industry largely depended on environmental anxieties tied

[542] Ibid.

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to broader discourses on cleanliness, pollution, and sustainability of both food and food systems.

This chapter thematically and chronologically traces the environmental narratives of catching, eating, and growing the catfish. These acts tied into larger controversies over the health of the human body. First, the chapter examines the Triana case. This story shows that buying farmed catfish over catching wild catfish revealed class and racial inequalities. These inequalities, for Triana residents, meant eating poisoned foods. Concurrently, fears over polluted seafood on the American market frightened Americans and their stomachs. The industry pushed the farmed catfish as a clean pure alternative while trying to pull the fish from its filthy image. But by the 1990s, growing catfish took a dirty turn. The image of farm-raised catfish pivoted from being an alterative to polluted foods to becoming a potential polluter itself, and the catfish got caught in the net of controversy over aquaculture in general. The narrative that the industry had shaped for itself as a clean alternative to polluted depleted seafood sources, almost slipped away. By the 1990s, the farmed fish became a perceived potential environmental problem rather than an escape from it. Then, despite real local environmental concerns about ponds and their produce, in the early 2000s, its image again switched. Environmentalists began to cite the farmed catfish as one of the most sustainable seafood on the market.

The environmental narratives of catching, eating, and growing the fish are full of twists. The wavering perceptions of the social and environmental benefits and costs of catfish aquaculture was contingent those who consumed, made policy, researched, and created the products that consumers put into their bodies. The rise of the farm-raised catfish hinged on a material, sensorial, and ideological makeover of the fish that was

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ultimately tied to concerns over notions of cleanliness and pollution in animals and their environments. As this chapter demonstrates, ideas of environmental pollution and purity were never far from the wild or farmed catfish.

Back in Triana, catching wild catfish had not always had deadly implications. Before the rise of the industry, African Americans and poor whites often looked to various waterscapes for food. From the 1940s to the 1970s, residents of the town in northern Alabama regularly fished the Indian and Tennessee Rivers, and consumed fish, like catfish, that they caught. But by 1947, the fish and wildlife that lived in those waters drowned in DDT. That year, about six miles from the small town of 1,000, on land leased from the U.S. Army on the Redstone Arsenal complex, Calabama Chemical Company built a facility to manufacture the insecticide. Almost a decade later, the Olin Corporation bought the plant, and manufactured DDT until 1970.[543] By the time the company closed, some 417 tons of DDT had freely flowed into the Huntsville Spring Branch and from there the Indian and Tennessee Rivers.[544]

As early as the 1950s, Olin and various governmental agencies knew the dangers of DDT. The company put warnings on their products, and the affects on wildlife living in the surrounding areas of Olin were clear. Birds and fish disappeared, dropped dead, or turned belly-up. By the end of the 1950s, the U.S. Fish and Wildlife Service noticed the dangers too. The agency found that in the area the population of double-crested cormorants plummeted ninety-seven percent, and by 1963, the number of red-shouldered

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[543] Dorceta E. Taylor, *Toxic Communities: Environmental Racism, Industrial Pollution, and Residential Mobility* (New York: New York University Press, 2014), 7.

[544] Ibid.

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hawks plunged ninety percent.[545] Every single day for decades, the facility dumped wastewater laced with the poison into drainage ditches that discharged into local waterways.[546] Until the late 1970s, many lived semi-subsistence lifestyles and depended on the waterways for protein-rich fish, particularly catfish.[547] By 1978, Triana's residents discovered that the fish they consumed had contained high levels of DDT. Only a year earlier the EPA discovered that some channel catfish caught near the Redstone Arsenal contained up to 400 parts per million (ppm) of DDT. To put that into perspective, the Food and Drug Administration outlawed the sale of any fish exceeding DDT levels of 5 ppm.

Unlike DDT's evident patina on the banks of rivers and streams, its poisonous affects on Triana's residents were visually inconspicuous. Their bodies had to be tested. In 1978, initially the Center for Disease Control (CDC) took blood samples from only a small group of people. The results were nothing less than shocking. One person tested for levels of DDT and dichlorodiphenyldichloroethylene (DDE) that were twice as high as any person ever tested and recorded in medical history.[548] A year later, the CDC returned to study more Triana residents. The agency tested 518 people, and African Americans comprised 86.9% of testing subjects. Like the 1978 study, the levels of insecticide running through the veins of Triana residents were jawdropping. Nationwide, on average

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[545] Ibid., 8.

[546] Until 1967, Triana residents' drinking waters came from those contaminated rivers. See: Taylor, *Toxic Communities*, 8.

[547] Ibid., 8.

[548] Ibid., 11.

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Americans between the ages of 12 and 74 had 15 ng/ml of DDT in their systems. For Triana residents, that average was 159.4 ng/ml, and some folks had up to 1,000 to 2,820.5 ng/ml of the chemical flowing through their veins. Triana residents could have been exposed to the chemical through working at the plant, drinking water from the rivers, or exposed through agricultural work. Most, however, were exposed through food. Some Triana residents consumed fish from the rivers daily and others ate fish at least once a week.

White southern officials did not try to stop locals from fishing the rivers, which revealed broader environmental and political malaise. In 1979, despite these findings officials refused to shut down the rivers from fishing. One Alabama official even declared, "I'd be glad to eat the fish from there anytime…When someone shows those levels of DDT are harmful to humans we will reconsider. This doesn't mean that someone in Triana has to die or even get sick."[549]Although the USFWS, TVA, EPA, and local government officials knew that the waters had toxic levels of DDT, no one alerted Triana residents. Until 1978, the residents continued to fish and drink from the poisonous waters from which they extracts much nourishment.[550] Mayor Foster observed, "They [governmental agencies] knew it was there…they should have come down and told us about it in 1964, when we were incorporated."[551] The blatant disregard for Triana's

[549] O'Neill, Larry, "A DDT Legacy," *EPA Journal* 5, no. 8 (1979): 11.

[550] Taylor, *Toxic Communities*, 7-13; Art Harris, "Checks Came in the Mail, but the Poison is Still in the Catfish," *The Washington Post*, June 4, 1983.

[551] Taylor, *Toxic Communities,* 10.

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predominately black residents prompted Mayor Foster to observe, "Things would be different if the people were white."[552] .

Along with the United States Department of Justice, those exposed to DDT soaked catfish sued the companies who polluted the rivers and the animals in them. Beginning in 1979, commercial fisherman, Triana residents, and the Department of Justice filed fifteen different suits again Olin. The residents argued that because they ate the catfish, a staple in their diets they had been poisoned by DDT.[553]

During these suits, Triana residents continued to think about food. They needed a new source, and they looked towards the soils. They began truck farming. With the assistance of the TVA, Alabama A&M, and Auburn University, the residents were able to start growing fruits and vegetables for local sale and consumption. "The garden has been a tremendous help to relieve some of the anxiety and frustration we have over contaminants. It is an opportunity to go out and till the soil and forget about our troubles," Mayor Foster told the *New York Times*.[554] Marvalene Freeman also observed, "We're feeding our senior citizens first…people who need it, don't pay one penny for vegetables. We're taking care of them first, then planning ahead for next year."[555] With the extras, residents were able to feed themselves.

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[552] *The Washington Post*, Friday February 2, 1979.

[553] Francis E. McGovern, "The Alabama DDT Settlement Fund," *Law and Contemporary Problems* 53, no. 4(Autumn 1990): 62.

[554] "Fishing in Alabama Contaminated, So a Town Turns to Gardening," *The New York Times*, August 30, 1980, 19.

[555] Ibid.

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By 1982, Olin reached an out-of-court settled with some 1,100 Triana residents.[556] They settled for $24 million with $5 million allocated to medical costs. After lawyer fees, each resident took home $10,000 which were distributed over a couple of years. On the first day of the first installment of $2,300, residents celebrated. But the nagging reminder that they could still be sick dampened the festivities. “This is the happiest day there has ever been in Triana,” Beechel Gray declared, and soberly added, “but I’d give the money back if they could take all the poison out of my body.”[557] It was a bittersweet victory. “Money can’t ever buy back our health. It couldn’t bring Howard Hughes back to life,” Marvalene Freeman told the *Washington Post*. “We’re walking dynamite,” Virginia Harris observed that the worrying and anxiety left her and her neighbors sick. She continued, “Since the DDT came, a lot of people have died and some of it came from worrying. I felt like a teen-ager [sic] until I got those blood tests.”[558] Harris suggested that DDT had poisoned both Triana residents’ bodies and minds.

The Triana story reveals growing divisions between those who ate farm-raised catfish and those who could afford to only eat wild-caught. In the industry’s early years, farmed catfish stakeholders wanted to ensure that the division between the wild and farmed was clear to consumers. For some stakeholders the distinction between cleanliness and filth was enough to make the farmed fish a completely different animal

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[556] "Environmental Justice Case Study: DDT Contamination," Triana Justice Page, accessed February 09, 2016, http://www.umich.edu/~snre492/triana.html.

[557] Ibid.

[558] Harris, “Checks Came in the Mail, but the Poison is Still in the Catfish.”

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and food. Cases like Triana reminded consumers that fish from the wild could be tainted. The industrial food system offered an alternative.

Long before Triana residents discovered the catfish they ate was contaminated with DDT, farmers and industry promoters tried used ideas of cleanliness and pollution to create distinctions between the wild and farmed product. The industry's ideological makeover of the catfish connected to a reimaged history and new ways of preparation, but notions of environmental cleanliness were significant characteristics of the transformation. As early as the late 1960s, the industry used ideas of pollution and filth as a way to distinguish the crop from the wild animal. To get away from the dirty, muddy, scavenging catfish image and flavor, farmers, processors, and lobby groups like the Catfish Farmers of America promoted the farm-raised catfish as clean, mild fish. They marketed the new flavor as a way to market clean waters, technological mastery over the animal, and its agricultural landscapes. The wild was nothing like the farmed. You could taste it.

The images of science and mastery over nature contributed to a new imagined clean cat. Farmers and marketers had to push the fish away from its dirty image. A Tennessee Valley Authority (TVA) booklet from 1969 on catfish farming addressed the fish's dirty image. "The industry must strive to overcome the image of the catfish as a scavenger from polluted rivers and lakes built in the minds of consumers from wild catfish," the agency observed. If the farmers wanted to sell more fish they had to remove the filth and the mud from consumers minds and palates. The TVA further observed, "Since images are important, farm-raised catfish should be promoted as a new product. This can be done by making consumers aware of the scientific conditions under which

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the product is produced and marketed."[559] Much like other promoters, the marketers wanted consumers to be aware the crop was entirely different partly due to its cultivation through pond culture.

Some catfish farmers and marketers promoted the fish as a gourmet item by selling cleanliness. In 1969, an article in the *Catfish Farmer* declared, "Rest assured that the protein-fed, farm-raised catfish has some of the finest eating qualities of any seafood! The flavor is totally unrelated to the flavor of 'wild' or 'ocean' catfish; in fact, gourmands and connoisseurs of seafood classify protein-fed, farm-raised catfish as a supreme delicacy." Moreover cleanliness distinguished the dirty wild fish for poor folks and the clean farmed fish for the upper class. The article stated, "Under no condition, can farm-raised catfish be longer considered in the same category as the wild catfish which have been characterized as 'poor man's' food. True, river cats or mud cats- those that grow wild-often have such undesirable flavor and quality that there is very little commercial market for them, but catfish culture has produced an entirely different product."[560] In the early 1970s, one reporter echoed similar ideas and asked their readers, "Why raise your own catfish, when you can catch them in the rivers and lakes?" And responded, "Pond-raised catfish are pollution-free and are considered as choice meat as filet mignon."[561] By insinuating farm-raised catfish were in fact comparable to a

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[559] Carl Madewell and Billy Carroll, *Intensive Catfish Production and Marketing*, Tennessee Valley Authority Bulletin (Muscle Shoals, Alabama: Tennessee Valley Authority 1969), 13.

[560] "Catfish Farming," *The Catfish Farmer*, Fall 1969, 22.

[561] Madora Hall Sharp, "Puny Kittens Become Fat Cats," *Mississippi News & Views*, October 1971, 10-11.

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famously expensive beef cut, and thus worthy of demand, the reporter upheld such notions that farmed catfish were in fact of a different class than the wild animal.

The industry's marketing efforts did not go unnoticed. In 1971, a Mississippi magazine observed the industry's plan of action. "Marketing approaches are directed toward erasing the old image of the catfish as a 'scavenger of polluted streams' by advertising farm-raised catfish as an entirely new product," the reporter wrote. They continued, "Today's clean pond-reared fish is indeed related only by heredity to his murky ancestor." In the case of the farmed catfish, farmers wanted consumers to believe that nurture was more important than nature. The magazine even reported that cleanliness of the farm pond environments made the fish look different. "Even the mud-brown skin has been exchanged for a grayish white," the magazine claimed.[562] This claim nearly the embodied the industry's desires to transform the wild dirty fish into a clean domesticated crop, and to shift the image of the catfish as a food fit for African Americans and the poor to one enjoyed by middle class and elite whites. As the fish's skin color changed, so too were these changes reflected in its consuming communities.

In the 1970s, even those who sold wild caught catfish highlighted the environments in which the fish lived, which highlighted the importance of the purity of water to flavor. In Des Allemands, Louisiana wild catfishermen boasted that they caught the best in the world, and water had much to do what made it so. In 1978, one reporter described these conditions as "The unpolluted waters of its bayous and lakes, untouched

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[562] "The 'Big Cat'" *Mississippi State University Alumnus*, vol. 45, no. 1, Spring 1970, Catfish Industry Vertical File, Mitchell Memorial Library, Mississippi State University, Mississippi State, Mississippi. Hereafter will be referred to as Catfish Industry Vertical File.

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by the oil wells that appear in other parts of the state, and the abundance of 'little red worms' on the bottom of the bayous and lakes…nourish the catfish." A Des Allemands' fisherman, Tarzan Matherne claimed that, "This lake we've got don't have any pollution to give the fish an oily taste. You have people here today because the fish is good. If they'd have a catfish capital of the world somewhere else, I wouldn't care to go."[563] The Louisianan wild catfisherman too attributed delicious taste to clean waters and environments. Despite instances of catfish fisheries that produced supposedly clean tasty fish, a pervasive attitude was that catfish were dirty and for poor folks. In 1981, a *Greenwood Commonwealth* reporter claimed that wild catfish tasted bad because of pollution and filth. "Mention of this unsavoriness is not without justification. The 'wild' catfish are hardy scavengers that thrive in polluted waters, and as result their flesh can have a dank, musty flavor," the reporter wrote.[564] Although wild catfisherman in Des Allemands promoted their fish as clean and tasty, by the 1970s, wild catfish consumption increasingly came with a price, as the Triana residents demonstrated.

In the early 1970s, catfish industry farmers and their political allies argued that the farmed cat was good for consumers. They reminded consumers that pollution and the catfish's environment and behavior in the wild caused it to taste bad, and that farmers could provide a clean, mild gourmet alternative. Moreover, farm-raised catfish could be the alternative to polluted fish caught from the world's lakes, rivers, and oceans. They consistently reminded consumers that almost all bodies of water, besides the man-made

[563] Frances Frank Marcus, "In the South, Catfish Business is Purring," *New York Times*, July 26, 1978.

[564] Kathy Holub, "Catfish Becomes Popular in the U.S." *The Greenwood Commonwealth*, 2 June 1981, Catfish Industry Vertical File.

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catfish ponds were, in fact, adulterated by pollution. Rep. William Hungate claimed, "Carefully controlled and supervised conditions of the growth of farm-raised fish should provide an important source of pollution free food. The need for fresh and safe supplies of fish should continue to increase—which should undoubtedly bring about the steady expansion of fish farming."[565] As an alternative to adulterated fish, catfish farmers and marketers distinguished the crop from wild catfish by marketing cleanliness, aquacultural technology, grain-based feeds, which for the industry, accounted for what made the farm-raised fish a delicacy. Incidentally as more Americans ate seafood, the fears of pollution circulated and supporters claimed that fish farming could provide a solution to contaminated seafood.

Other farm-raised catfish stakeholders fervently claimed the marked differences between the wild fish and the crop. In 1985, one processor claimed, "Please don't confuse…pampered pond fish with something that comes out of a river…If I would catch a bullhead or a mudcat, I would do the same thing a Northerner does: Beat it with a boat paddle and throw it overboard." He continued, "Pond-raised fish are so clean they don't even smell like fish." The farmed catfish's flavor and scent belied that it was ever dirty fish, but more the processor suggested that the farm pond environment was not a lot like wild. It was a clean domesticated space. To push his point further, the processor proved the crop's lack of smell, which ostensibly embodied clean waters and environments,

[565] "Catfish Clan in Congress," *The Catfish Farmer*, July 1971, 23.

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when the processor smeared his hands with a "rubbery strip of raw fish" and shoved his fingers a "visitor's nose to prove his point."[566]

Others cited how cleanliness and the farmed catfish's behavior created a mild flavor. The pelleted foods farmers fed their crops floated at the top of the water, by which one reporter observed in 1988 that, "By being forced to feed at the top of the water, the farm-raised catfish, unlike its river-bred cousin, does not ingest any organic matter that can possibly affect its flavor—hence, its almost neutral taste."[567] This near tasteless flavor lent one food writer to claim, "Gastronomically speaking, farm-raised catfish doesn't have the integrity of wild catfish. It's soft, mealy and bland in flavor. That's why it turns up in white-tablecloth restaurants, because it's a vehicle for sauces."[568] Clean, tasteless flavor made the farmed catfish versatile, and it was a seafood alternative that was readily available all year long.

Industry supporters noted the farmed fish's availability, which warranted it as an alternative to depleted seafood sources. In 1988, noted Louisiana chef and culinary history John Folse observed, "Everybody is turning to seafood these days, but the old standbys are not so easy to find anymore…" As more people ate fish and other seafood, the farmed cat was an alternative. He moreover challenged the notion that the fish was not worth the room on consumer plates. "People may approach catfish with skepticism - they think it's trash fish, something that you catch in little ponds and then throw back,"

[566] Doug Struck, "Delta Afloat in New Cash Crop: Catfish" *The Sun*, March 14, 1985.

[567] Barbara Aarsteinse and Vivian Gates, "With a Change in Sea Harvest, Farmed Catfish May Catch On," *The Globe and Mail*, January 20, 1988,

[568] Berkeley Rice, "A Lowly Fish Goes Upscale," *The New York Times*, December 4, 1988.

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Folse told *The Globe and Mail*, and continued, "But it is actually quite tasty and very versatile."[569] When humans had depleted the seafood stocks of the world, they had an alternative, the farmed cat. Farm-raised catfish stakeholders were not just interested in providing clean foods for consumers looking for alternatives to polluted or depleted fish stocks. They also wanted to remove the notions that the catfish was a scavenging animal living in filthy and dirty environments that imbued its wild flesh with mud.

The industry may have provided consumers with ostensibly clean alternative seafood choices, but as it grew so did its environmental externalities. The intensification of production caused farmers to use more chemicals and created more nutrient-dense effluents that threatened local environs and watersheds. The eutrophication of water from feed, catfish carcasses, algae, and other detritus produced high levels of nitrogen and phosphorous that could harm local water sources. In 1974, the EPA cited catfish aquaculture as a potential polluter, but the agency decided, "not to issue final national effluent limitations guidelines and standards." The agency regarded the industry too small to regulate, and exempted farmers from the guidelines of the Clean Water Act of 1972 (CWA).[570] Its environmental impacts hinged on local ecologies, individual practices, and an operation's size, yet the EPA's lack of regulation depended on the erroneous view that the farm-raised catfish industry was slow growth without much room for expansion.

Between 1970s and 1990s, in Mississippi catfish farming boomed. Due to the EPA's choice to dumped the task of monitoring effluents and discharged onto state

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[569] Aarsteinse and Gates, "With a Change in Sea Harvest, Farmed Catfish May Catch On."

[570] To read more on the Clean Water Act, see: Robert Adler, Jessica C. Landman, and Diane Cameron, The Clean Water Act 20 Years Later (Washington, D.C.: Island Press, 1993).

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water-pollution agencies in 1977, a lack of water quality regulation in the leading catfish producing state developed. The National Pollution Discharge Elimination System (NPDES) of the CWA, which allowed states to file for permits for effluent discharges, but did not require permits for aquaculture since there were no federal rules for effluents from fish farms.[571] The NPDES was a permit system that regulated effluents by industries through a permit system. The agency proved impotent when confronted with the pollution of fish farming industries. In 1983, Claude Boyd an aquaculture researcher at Auburn observed, "Considerable uncertainty exists over actual implementation of effluent limitations for fish ponds."[572] For states like Mississippi the quality of water may have not looked so good.

The lack of environmental concern in the states that led the nation in catfish aquaculture had, as one legal scholar observed, "subsidized growth in the industry by reducing the expenses of growing catfish by taking environmental costs out of the equation."[573] The farmed cat industry exploded in the 1980s. For instance, in 1980, processors processed some 46.5 million pounds of catfish as compared to nine years later when processors, killed, beheaded, and eviscerated some 342 million pounds.[574]

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[571] Claude Boyd, "Guidelines for Aquaculture Effluent Management at the Farm-Level," *Aquaculture* 226 (2003): 103.

[572] *Water Quality in Channel Catfish Ponds*, series 290 (Mississippi State: Southern Cooperative Series Bulletin, December 1983), 50.

[573] Mary Liz Brenninkmeyer, "The Ones that Got Away: Regulating Escaped Fish and Other Pollutants from Salmon Fish Farms," *Boston College Environmental Affairs Law Review* 27, issue 1 (1999): 103.

[574] *Catfish Processing* (Washington, D.C.: National Agricultural Statistics Service, 1989); *Catfish Processing* (Washington, D.C.: National Agricultural Statistics Service, 1990) .

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Seventeen years later, the numbers jumped to processing 524 million pounds. During these years, with the lack of government oversight on catfish farm effluents, farmer expanded their farms without much concern for the environment.

The glaring lack of control did not last long. It was not the EPA, however, who initiated calls to create new standards. Rather, environmental advocacy groups demanded that the government regulate aquaculture industries that rapidly grow in the 1970s and 1980s, including the farmed catfish industry. On October 30, 1989, the Natural Resources Defense Council (NRDC) and Public Citizen filed a suit against the EPA. The advocacy groups charged that the agency had failed to implement various sections of the Clean Water Act of 1972. The Ninth Circuit Court courts found that "the EPA erred in promulgating a regulation that does not require the states to identity 'point source' toxic polluters for all of the polluted waters listed under the Clean Water Act."[575] This included fish farming enterprises. In 1990, *Natural Resources Defense Council v. United States Environmental Protection Agency* ended in a Consent Decree. The court ordered the EPA to create national effluent guidelines for new industries, like the catfish industry.[576]

Despite the Consent Decree, the agency did not create new regulations or guidelines right away. The catfish industry slipped away from federal regulatory oversight for another decade, and in places like Mississippi and Alabama it meant a glaring of regulation. In 1993, a legal scholar observed, "Because the EPA has delegated

[575] United States Court of Appeals for the Ninth Circuit, Natural Resources Defense Council v. United States Environmental Protection Agency, No. 89-70135, Argued and Submitted April 16, 1990, Opinion Judge Betty B. Fletcher.

[576] 576 Karen Kreeger, "Down on the Fish Farm: Developing Effluent Standards for Aquaculture," *BioScience* 50, no.11 (November 2000): 950.

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its authority to the state, this exemption has had the effect of removing the Mississippi catfish industry from all NPDES permitting requirements at the harvesting stage." This was problematic because catfish farming was big business in Mississippi. In fact, Mississippi had led the nation in catfish production since the 1970s and it continued to rein king. In 1993, the industry made $353 million dollars, and of the total 152,140 acres of land under water for catfish production, 91,000 acres were in Mississippi.[577] Nearly sixty percent of catfish aquaculture production was concentrated in Mississippi, and those areas under water were far more productive than other farmers because they were larger than other farms. Of the total 1,451 catfish operations in the United States, 276 were in the Magnolia State. "Clearly, this exemption to such a large industry will impact the state's ability to control discharge pollution and protect state water quality," the legal scholar observed.[578] At the same time that catfish farmers continued to intensify and expand their catfish farms, other aquacultural enterprises grew.

Beginning in the 1970s, the global farmed salmon and shrimp industries flourished. Norway, Chile, and British Columbia had the largest salmon farming operations. [579] Between 1980 and 1997, the industry grew from producing 26,400 pounds

[577] *Catfish Production* (Washington, D.C.: National Agricultural Statistics Service, February 1994), 2.

[578] Ronald Rychlak and Ellen Peel, "Swimming Past the Hook: Navigating Legal Obstacles in the Aquaculture Industry," *Environmental Law* 23(1993): 857,

[579] To read more about the salmon farming industry, see: John Soluri, "Something Fishy: Chile's Blue Revolution, Commodity Diseases, and the Problem of Sustainability," *Latin American Research Review* 46, no. S (2011): 55-81.

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of farmed salmon to producing an estimated 1.84 million pounds.[580] The shrimp farming industry during this period boomed too.

In the 1990s, some vocal environmentalists set their sights on the global wild and farm-raised shrimp industries. From wild caught industries of Ecuador to the farmed industry of Thailand, these shrimpers and farmers fed Americans hunger for shrimp. In the mid-1990s, the United States, imported some $3 billion worth of shrimp annually, the small crustacean found itself on more American dinner plates than any other seafood in the United States.[581] Looking to aquaculture seemed like a better alternative, especially when it seemed like insatiable Americans wanted more. This was especially true when environmentalists pointed out that shrimpers' nets killed the lovable sea turtle. In the 1980s, the National Marine Fisheries Service conducted studies on shrimping industry in the Gulf Coast of Mexico and found that the annually shrimpers caught an estimated 48,000 sea turtles, of which some 11,000 died yearly. Throughout 1987, the Sea Turtle Stranding and Salvage Network discovered some 8,300 dead sea turtles on the Gulf Coast and blamed shrimp nets as the cause of the animals' deaths.[582] By 1996, the United States embargoed shrimp from countries that lacked regulations or requirements for shrimpers' nets to have turtle excluder devices (TEDs) that allowed sea turtles to escape the death traps. Comparing the dolphin safe tuna movement of the 1980s, the *Christian Science*

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[580] Frank Asche, Atle Guttormsen, Ragnar Tveteras, "Environmental Problems, Productivity and Innovation in Norwegian Salmon Aquaculture," *Aquaculture Economics & Management* 3, no.1 (1999): 21.

[581] Howard LaFranchi, "Shrimp Lovers, Take Note," *Christian Science Monitor*, April 29, 1996.

[582] Daniel Keith Conner, "Turtles, Trawlers, and Teds: What Happens When the Endangered Species Act Conflicts with Fisherman's Interests," *Water Log* 7, no. 4 (October-December 1987), 4.

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Monitor wrote that trapped sea turtles in shrimpers nets, "is likely to make eating shrimp in the 1990s what eating tuna became in the '80s before 'dolphin-safe' tuna-fishing methods were enforced—an environmentally irresponsible act."[583] Americans wanted to eat the seas bounty, but became more readily aware of the detriment of their choices.

Environmentalists recognized the problems of wild caught shrimping, but found shrimp aquaculture to be even more destructive. They found that shrimp farming practices destroyed mangrove ecosystems in places like Southeast Asia, which undercut biodiversity. Shrimp farms polluted areas that farmers grew their crustacean crops. "Consumers don't generally know that the shrimp industry is one of the least sustainable and most polluting in the world," Kate Cissna of the Seattle's Earth Island Institute's Mangrove Action Project told the *Christian Science Monitor* in the spring of 1996. In New York in April 1996, the United Nations Commission for Sustainable Development convened what environmentalists called a "Shrimp Tribunal." "The boom in shrimp aquaculture had led to the ruin of millions of acres of biologically-rich mangrove forests and to severe contamination and pollution at shrimp farms," the NDRC stated, as one of other environmentalists groups at the meeting.[584] In 1996, Alfredo Quatro director of the Mangrove Action Project told *Mother Jones*, "No system has been put forward that I would support as safe, secure, and sustainable."[585] For environmentalists shrimp farming was not worth its consequences.

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[583] LaFranchi, "Shrimp Lovers, Take Note."

[584] Joan Martinez-Alier, *The Environmentalism of the Poor: A Study of Ecological Conflicts and Valuation* (Cheltenham, UK: Edward Elgar Publishing, 2002), 94.

[585] "Should You Eat Shrimp?" *Mother Jones* 21, issue 2(March/April 1996): 34.

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During the 1990s, environmentalists too targeted salmon. Most salmon farms functioned in open waters as farmers fed their fish pelleted food and antibiotics. Some non-native species escaped into native waters, like the Atlantic salmon had in the Pacific Ocean as a result of salmon farming. Environmentalists criticized the salmon industry for polluting the environment with feed, spreading diseases like sea lice, and dumping antibiotics that could lead to bacterial resistance in native salmon populations. And like the shrimp farms, environmentalists claimed salmon farming contributed to environmental degradation. For salmon farmers it was worth it.

Salmon had prestige, unlike the catfish, and the global demand outstripped the supply. “The world wants salmon,” John Peterson owner of Seattle’s Pike Place Fish Company told the *New York Times* in the spring of 1997. “The demand is worldwide. The supply isn't. Very few people could afford to eat salmon if it wasn't farm raised. Since Christmas, we've had seven troll-caught salmon here, and we've sold 3,000 pounds a week of farmed salmon,” he concluded. Unlike the farm-raised salmon, the farmed catfish industry had to create and sell prestige. But as more environmentalists and concerned consumers became aware of the problems of industrial fish farming, some questioned its efficacy. Although catfish farming did not function in open waters, and therefore continually rush biological, nutrient, or chemical pollutants into the environment, environmentalists too lumped catfish farming into the same category as the likes of salmon and shrimp farming. If the unadulterated catfish supposedly polluted the environment, there were other major controversies that may have caused consumers to believe that the farm-raised fish polluted their bodies too. As the eye on the problems of growing catfish intensified, the industry encountered another problem.

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Adulterants could tarnish the supposedly clean fish. On July 3, 1997, the Food and Drug Administration (FDA) dropped a bomb on industries that used soymeal produced by Arkansas's Riceland Foods Inc. and Quincy Soybean Co. that had been contaminated with dioxin, particularly 2,3,7,8-tetrachlorodibenzodioxin, between April 1, 1997 and June 25, 1997. During the spring and early summer of that year, the two Arkansas based companies used ball clay as anti-caking agent contaminated with dioxin from a mine located in Sledge, Mississippi.[586] Those who used the adulterated meal included catfish and poultry industries.

Dioxin is a cancer-causing carcinogen and a product of industrial processes. Dioxin is everywhere, but people who live in particularly industrial settings have higher exposure to the compound. Residence is important in determining exposure, but most frequently people are exposed to the compound through food, particularly dairy, meat, and fish products.[587] Ostensibly small levels of dioxin are fine, but chemical builds up in the fatty tissues of both human and non-human animals and can take years to oxidize and leave one's system. Thus even small levels of exposure, if on a constant and repeated basis, can be very problematic.

On July 7, 1997, although the FDA assured consumers that they "should not hesitate" to consume catfish on the market, and that there was no "immediate health hazard, it is taking action as a precautionary measure" in regulating the catfish

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[586] Fax Fred R. Shank and the Division of Federal-State Relations to 601-960-7931, "Health Advisory," July 16, 1997, Mississippi Department of Agriculture and Commerce Collection, Folder Catfish, Series 2751, Box 31651, Mississippi Department of Archives and History, Jackson, MS. Hereafter will be referred to as Mississippi Department of Agriculture and Commerce Collection.

[587] Ferriby, LL, et al., "Comparing PCDDs, PCDFs, and Dioxin-Like PCBs in Farm-Raised and Wild Caught Catfish from Southern Mississippi," *Organohalogen Compounds* 68 (2006): 612.

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industry.[588] The FDA needed to act fast. The agency had to figure out what was the best course of action to deal with the dioxin scare. By July 8, the FDA purposed that for a processor to sell its fish, they had to prove that the fish did not have a dioxin level of 1 per part trillion in its samples or that the fish did not consume feeds with the contaminated soymeal. [589] The industry would have to comply with these stipulations by midnight Sunday, July 13, no matter what.

The FDA's ad hoc prescriptions caused a falling out. Although Mary Pendergast, FDA's Deputy Commissioner told the *Clarion Ledger,* "These farmers didn't have any thing to do with the causation…that's why we wanted to make this as painless as possible," industry officials thought it would be a grueling process.[590] Catfish industry officials did not remain silent. "It's too much too fast," Bill Allen complained, and continued, "We're going to be basically shut down Monday [July 14, 1997] if we don't get some relief."[591] On July 11, the Delta Council arranged an emergency meeting in the Senate Majority Leader's Conference Room in Washington D.C., where FDA, USDA, and EPA officials met powerful southern politicians, like Trent Lott and Thad Cochran, along with high level public health, chemical, and environmental quality officials. "Our industry has a lot of people to thank for this quick action to avoid the virtual industry shutdown…" Bill Allen wrote of the meeting to catfish processing factory and feed mill

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[588] Bruce Reid, "Dioxin Stops Catfish, Poultry, Egg Shipments," *The Clarion Ledger*, July 10, 1997.

[589] Ibid.

[590] Bruce Reid, "State Catfish Meet Federal Dioxin Limit," *The Clarion Ledger*, July 23, 1997.

[591] Bruce Reid, "State Seeks Delay in FDA Dioxin Order," *The Clarion Ledger*, July 11, 1997.

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owners days after the fact. And with these officials and "Senator Lott personally [opening] the meeting and [setting] the tone," Allen wrote, the FDA may have changed their tune. At these meetings southern politicians and catfish industry supporters told that FDA fish farmers didn't use the feed as much "as once thought." In fact, industry officials told the governmental agency that one state "now believes that no contaminate feed" was given to the catfish, and "another state (which is a major producer) determined that 25% of its catfish have not been fed the contaminated feed."[592] Which revealed that in Mississippi, farmers fed 75% of their catfish with dioxin laced feeds.

These pond-owners restated their claim to the FDA that the economic impact of regulations would be "devastating." The political supporters of the catfish industry reminded the FDA that the catfish industry was a $4 billion enterprise and employed some 28,000 people.[593] Spell and other scientists argued the FDA's call for regulations, "in view of the fact that the residues do not represent any immediate public health hazard, and in the mind of many, not even a long term hazard, the precipitous nature of the FDA directive, with attendant massive economic downfalls cannot be justified."[594] By July 11, the FDA plans drafted only a few days earlier were suddenly "inadequate for catfish."[595]

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[592] Fax Fred R. Shank and the Division of Federal-State Relations to 601-960-7931, "Health Advisory," July 16, 1997, Mississippi Department of Agriculture and Commerce Collection.

[593] From Lester Spell, J. I. Palmer, Jr., Earl Alley, F. E. Thompson to Michael Friedman, July 10, 1997, Mississippi Department of Agriculture and Commerce Collection.

[594] Ibid.

[595] From Fred R. Shank to ORA Field Managers, Director, Office of Public Affairs, Director of Office of Legislative Affairs, Director of Center for Veterinary Medicine, July 11, 1997 Mississippi Department of Agriculture and Commerce Collection.

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After the meeting, FDA changed its ad hoc measures. The agency conclude that its "original sampling and testing program for catfish would be unsuccessful." On July 16, the FDA settled on what to do. Beginning July 20, processors could sell farm-raised catfish that were not using feeds with ingredients from the contaminated mills, or produce lab analyses that had proved the fish contained no more than 1 ppt of dioxin.[596] Industry officials like Bill Allen still complained of the dioxin threshold levels that the FDA found acceptable. Allen wrote to processors, mill owners, and farmers that he thought that "1 ppt threshold level for adulterated product in this incident is arbitrarily low…"[597] Yet the FDA defended its threshold level. That threshold level was not "intended to be permanent" and the "ppt level was carefully chosen as a threshold that would identify food from animals which had consumed dioxin-contaminated feed while allowing products with background levels of dioxin to move into commerce."[598] Despite the dioxin scare, the FDA consistently stated that there were no was "immediate public health hazard" from the catfish.[599]

The dioxin scare frightened most, if not all, catfish farmers and industry boosters. Allen wrote to Congressmen Jay Dickey, "No catfish processor lost one hour of

[596] From Bill Allen to Catfish Feed Mills, Catfish Processors, Catfish Farmers, July 16, 1997, Mississippi Department of Agriculture and Commerce Collection.

[597] Ibid.

[598] "Revised Sampling and Testing Program for Catfish," FDA Talk Paper, July 16, 1997, 4, Mississippi Department of Agriculture and Commerce Collection.

[599] Ibid.

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production time" and "no farmer lost any live fish."[600] Due to the political pressures and the support of scientists in Mississippi and Arkansas, the catfish industry got out of the dioxin scare fairly unscathed. Though it did still cause distress. "During the past two weeks, I have experienced a wide range of emotions," Bill Allen of The Catfish Institute wrote to catfish farming supporters like Senators Trent Lott and Thad Cochran on July 19, 1997.[601] "I have experienced extreme frustration with a federal bureaucracy that in my opinion grossly overreacted to a situation that clearly never posed any conceivable health risk to any consumer…"[602] Allen was clearly upset at the FDA's acceptable limits for Dioxin, and did not agree with the limitations they set.

During the 1997 Dioxin scare, the catfish industry had political allies that could stop regulatory oversight from impeding on business. Allen praised catfish farmers, politicians, and supporters in the scientific communities, and observed, "I have never experienced such a team effort by professional people with no regard for who got credit for anything…" He did add a note that the concerted effort by the industry's friends could have looked unseemly. "I fully realized that if this had been a situation in which our catfish products had in fact posed a serious health risk to consumers that no amount of political effort could have fixed the problem, and rightly so," the TCI president wrote, and concluded, "This was clearly not the case, and you have given us every assistance in

[600] From Bill Allen to Jay Dickey, "Re: Request for TCI Participation in Hearings on Dioxin Matter," July 25, 1997, 1, Mississippi Department of Agriculture and Commerce Collection.

[601] Bill Allen to [multiple recipients] "Re: Thanks from The Catfish Institute," July 19, 1997, 1, Mississippi Department of Agriculture and Commerce Collection.

[602] Ibid.

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proving it."[603] By the 1990s, it seemed no one was safe from adulterants in their food industrially produced or otherwise.

The farm-raised catfish industry escaped the dioxin scared, but another problem reared its head months later in the fall of 1997. Environmentalists lumped catfish along with shrimp and salmon farming although catfish farmers grew their crops differently than the other industries. As a result, the critical eye on catfish farming was much less intense than shrimp or salmon farming, but environmentalists were still aware of the problems associated with the farmed cat industry.

Although environmentalists questioned and criticized numerous aquacultural practices, a study produced by environmentalists added more bite to their attacks. In October 1997, the Environmental Defense Fund (EDF) an environmentalist group released a study entitled written by scientists Rebecca Goldburg and Tracy Triplett, *Murky Waters: Environmental Effects of Aquaculture in the United States*. As suggested by its title the report had two meanings. It revealed the environmental pitfalls of cultivating fish and seafood, and made "environmentally and economically sound" recommendations for aquacultural practices for the unknowable future.[604]

Goldburg and Triplett's study was critical of the environmental and social costs of fish farming industries. They observed that although international development organizations had advanced aquaculture for people in developing nations in need of protein rich foods, that in most cases aquaculture was not for the poor. "Many

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[603] Ibid.

[604] Rebecca Goldburg and Tracy Triplette, *Murky Waters: Environmental Effects of Aquaculture in the United States* (Washington, D.C.: Environmental Defense Fund, 1997), 4.

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aquaculture products are now relatively expensive and are unlikely to be purchased by poor people in developing countries or in the United States," Goldburg and Triplet wrote. Although a significant portion of *Murky Waters* focused on the environmental impacts, the authors sought to make recommendations for industries so to ensure that both the environment and peoples living in the surrounding areas were not damaged by aquaculture industries.

Goldburg and Triplet argued that although fish farming seemed like an efficient enterprise there were many environmental costs. First they pointed to what they called the "fishmeal dilemma," which asserted that fish farming was not efficient. Many farmed fish, they argued, were carnivorous, like salmon, and needed protein to grow. *Murky Waters* argued that, unlike food for land-based animals, fish farming used up a lot of fishmeal. They estimated that twenty to seventy percent of fish feeds were made out of fishmeal, whereas land based animals used negligible amounts. This did not bode well for efficiency. But more, the scientists argued that the fishmeal dilemma created a significant strain on marine food webs. The removal of small pelagic fish "means less food may be available for commercially valuable predatory fish and for other marine predators, such as seabirds and seals," Goldburg and Triplet argued.[605] They observed that fish feeds drained the oceans of valuable food for other animals.

The study targeted the biological, chemical, and nutrient pollutions of fish farming industries. "Aquaculture is commonly presented as a clean industry," Goldburg and Triplet claimed, but observed, "Nevertheless, intensive (densely stocked) aquaculture

[605] Ibid., 4.

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systems" produced wastes much like other food animal industries.[606] As compared to these industries, fish farms tended to dump their wastes right into natural waterscapes because they were apart of these systems, like shrimp and salmon farms. When receiving waters filled with organic matter and other phosphorous and nitrogen compounds these elements quickly caused algae blooms that can cause fish kills, or mass fish die-offs. Fish feces too harbored diseases and could harm humans.

Fish farming introduced biological pollution or invasive species into new areas. Goldburg and Triplet argued that non-native species and genetically engineered fish could endanger the stocks of wild aquatic creatures. In 1996, for example, 100,000 Atlantic salmon escaped from a farm into waters along the state of Washington. Goldburg and Triplet argued that the genetics of these species that were bred to grow quickly and to be less aggressive could potentially harm native Pacific salmon populations. They feared that the non-natives species like Atlantic salmon would breed with native salmon and setback the evolutionary adaptation that native species developed overtime. Moreover, non-natives species could introduce new parasites and disease. Lastly as fish farmers introduced non-native species, they killed and harassed other animals that ate their fish crops. For the EDF fish farming enterprises harmed the biota around them.[607]

Murky Waters also provided solutions. The scientists observed that farmers should grow natives species, feed fish with low fishmeal content, and possibly develop enclosed systems that recirculate water while getting rid of netpens in open waters. They

[606] Ibid., 6.

[607] Ibid., 10.

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also recommended the use of labels like "eco-certification" on farmed foods so consumers could choose fish and seafood that were grow in an "environmentally sound manner." They argued too that it gave, "Aquaculturists incentives to produce products which can bring higher prices."[608] Among other suggestions for more environmentally friendly fish farming practices, EDF's most imperative recommendation was the call for government regulation. The EDF study recommended that the to CWA be applied to aquacultural industries through the development of effluent limitations.[609]

Aquaculture stakeholders were on edge. In 1998, Donald L. Garling and Marty Riche of Michigan State University's Department of Fisheries and Wildlife wrote a rebuttal to Goldburg and Triplett's work. Published in *Northern Aquaculture*, "Critical Review of the Environmental Defense Fund's Murky Waters Report on Aquaculture" began, "On the surface, the Environmental Defense Fund (EDF) Murky Waters report appears informative and well written. However, it should be cause for concern by the aquaculture industry since the issues presented are often oversimplified, exaggerated, and many of the recommendations are unrealistic."[610] The scientists addressed the fishmeal problem, and nutrient, chemical, and biological pollution. The defenders of aquaculture generally pointed out the unsustainable practices of the beef, pork, and poultry industries, and promoted fish farming as an environmentally friendlier alternative. The scientists first addressed fish feed and its fishmeal content. Although the scientists acknowledged

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[608] Ibid., 17.

[609] Ibid., 18.

[610] Donald Garling and Marty Riche, "Critical Review of the Environmental Defense Funds Murky Waters Report on Aquaculture," *North Aquaculture Supplement* 4, no. 10 (1998): 17-26.

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EDF's claims that the fishmeal came from fish sources that seals and other sea life ate, the researchers did not rebut the claims on depleting other animals' sources of food, but rather focused solely on the human dimensions. "If these wild caught fish were as desirable to consumers as farm raised products, their value would preclude their use in fish feeds," Garling and Riche responded.[611] Very few people liked those fishmeal fish they claimed, as they ignored the plight of sea animal's belly.

The scientists examined and addressed the EDF's accusations that aquaculture contaminated the environment and endangered humans health. Garling and Riche argued that the problems of pollution from effluents were overblown because even if some aquaculture industries continuously discharged water into surrounding areas the nutrient density was weak. "In reality, the largest contributors of nutrients to watersheds are non-point sources," the researchers added. They cast their accusatory fingers to "land-based animal operations." Other issues that the EDF illuminated like disease carrying fish fecal matter and antibiotics usage, these were non-existent or exaggerated the scientists claimed. The issue of biological pollution that the EDF claimed was "the most important cause for introductions of non-native species from on[e] country to another," was "misleading." Rather researchers claimed that humans had introduce many different animals into the American landscape that were "non-aquaculture related" and cited the zebra muscles, gold fish, and brown trout. Moreover, the "aquaculture escapees" that the EDF feared could cause species extinction, the researchers observed, "In reality, wild stocks face much less of a threat from farm raised fish than they do from humans." Riche

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[611] Ibid, 17.

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and Garling observed that “hydroelectric dams, harbor dredging, mining, logging, agriculture, and urbanization, continue to do more harm to native fishes than do farm raised fish.”[612] But if the invasive escapees did interbreed with native fish populations the researcher observed that “an infusion of new genes could be beneficial” because the environment was constantly changing. “The environment to which these stock become adapted, even as recently as 100 years ago, is different from the one they face today. Evolution takes longer than the time it has taken humans to change the environment.”[613] the scientists argued. They concluded that the industry faced many hurdles, and “Reports such as the one by the Environmental Defense Fund will continue to make it difficult for the aquaculture industry to market itself as a responsible environmental steward.”[614] The industry, they recommended, needed to market the benefits of aquaculture and educate the public against claims from environmental groups like the EDF.

Many other aquaculture stakeholders defended their industries. Addressing biological pollution, Brad Hicks a board member of the B.C. Salmon Farm Association and veterinarian argued, “What's the problem? Intermarriage dilutes races. Is that a problem?” Comparing wild and domesticated land animals, Hicks observed, “If North America treated all farm animals the way Fulton wants us to treat Atlantic salmon, we would be sending our cattle and chickens back to Europe and breeding buffalo to produce milk.” Other aquaculture stakeholders challenged the problem of biological pollution.

[612] Ibid., 24.

[613] Ibid., 25.

[614] Ibid., 26.

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“You just can’t point a finger at aquaculture on this one,” Jay Parsons the head of the Aquaculture Association of Canada and a scientist work for Newfoundland's Marine Institute, continued, “Governments around the world have been raising and breeding fish for thousands of years and introducing them into waters, and that has changed the genetic composition of populations.”[615] For critics of fish farming pollution also came in the medicinal form. Critics of aquaculture cite antibiotic resistance produced by fish farms that could spread to wild stocks especially in open water farming operations. But defenders even had a response to antibiotic resistance. “You have periodic epidemics in any farmed population and even in man,” Hicks stated, and concluded, “Just think of influenza.” For some aquaculturists and stakeholders, Canada’s *Globe and Mail* aptly observed, “The domestication of salmon, mussels or cod just seems an inevitable part of human evolution.”[616] Indeed, for aquaculturists and their supporters, evolution was not limited to domestication, but extended to questions of disease and resistance in wild stocks.

While farmers could engage in environmentally “sound” catfish farming practices, other issues beyond pollution caught the EDF’s criticisms. Farmers fought birds that preyed on their crops. Catfish farmers combated Blue Heron, Great Egrets, and especially the federally protected species, the double-breasted cormorant.[617] The catfish

[615] Andrew Nikiforuk, “Salmon Farming Ignites A 'Surf War': The Growing Industry Of Fish Farming Has Produced A Few Scaly Side Effects, Many Scientific Unknowns And A Canadian Debate That Can Only Be Called Sharkish,” *The Globe and Mail*, May 30, 1998.

[616] Ibid.

[617] To read more about the cormorant, see: Linda R. Wires and Barry Kent MacKay, *The Double-crested Cormorant: Plight of a Feathered Pariah* (New Haven: Yale University Press, 2013).

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ponds attracted the birds because of the bountiful food supply and because the agricultural habitats provided an additional place for cormorants to relocate as their own natural habitats disappeared. The catfish pond became a man-made watery habitat full of food ready to be snatched away by hungry birds.

Catfish farmers fought the birds for decades. In the 1980s, the double-breasted cormorant became increasingly problematic to catfish farmers. In 1984, researchers published one of the first studies on cormorant depredation on catfish farms. Running a few experiments in Florida's late summers and autumns between 1979 to 1981, the researchers found that thirteen cormorants consumed roughly 246 fish a day in total.[618] The 1989, study published by A.R. Stickley estimated that in the winter of 1988, cormorants in the Delta consumed about 0.67 lb of catfish a day. At the cost of $.78 per pound and with $2.1 millions spent on scaring away cormorants, Stickley's study estimated that in 1988, farmers lost $5.4 million to their cormorant problem. Farmers saw cormorants eat their profits.

The bird supposedly cost catfish farmers millions of dollars a year in what became cormorant feed. Until 1998, farmers could obtain permits to kill fifty cormorants a year that were considered a constant nuisance. That year, the Fish and Wildlife Service no longer required catfish farmers to obtain permits. They could also kill as many as they wanted. "With this depredation order, the Service is letting aquaculturists to take action to protect their livelihood when nonlethal methods are ineffective. This action will have

[618] John L. Trapp and Shauna L. Hanisch, "Cormorant Food Habit and Potential Impacts on Sport and Commercial Fisheries: An Annotated Bibliography," February 2000, 21.; H.L. Schramm, Jr., B. French, and M. Ednoff, "Depredation of Channel Catfish by Florida Double-Crested Cormorants," *The Progressive Fish-Culturist* 46: 41-43.

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no significant effect on the cormorant population but will provide needed relief on a site-specific basis," said Service Director Jamie Rappaport Clark.[619] The losses catfish farmers incurred from the cormorants were enough cause to kill them. For the EDF, the murder of a protected species was a particularly egregious form of environmental degradation.

The protests and actions of concerned environmental groups turned into policy. By 2000, the EPA claimed that, "Given the current growth of the aquaculture industry, and the inconsistent state regulatory oversight" that they would set national regulatory standards. Between 2000 and 2004, the agency conducted studies, mailed out 6,000 surveys to fish farmers, and visited various farm sites to create new guidelines. The Joint Subcommittee on Aquaculture established the Aquaculture Effluent Task Force (AETF) that included scientists, various federal and state agencies, environmental group representatives, and folks from aquaculture industries.[620] Some of the AETF members were some of the most well-known farm-raised catfish researchers around like Craig Tucker, a catfish aquaculture researcher at the Delta Experiment Station in Stoneville, Mississippi.

Although EPA would not figure catfish industry regulations until 2004, farmers and scientists chafed at the notion of regulation and the accusation that catfish farming was bad for the environment. "A couple of years ago, two events came together that

[619] "Migratory Bird Permits; Establishment of a Depredation Order for the Double Crested Cormorant," *Federal Register* 63, no. 42 (March 4, 1998): 10550.

[620] "Effluent Limitations Guidelines and New Sources Performance Standards for the Concentrated Aquatic Animal Production Point Source Category," *Federal Register* 69, no. 162 (August 23, 2004): 51896

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made this a federal issue, so to speak," Craig Tucker told science writer Karen Kreeger in 2000. He attributed the court case and the study, but found that catfish farming did not fit into these larger models of fish farming in the United States that the groups criticized. Although catfish farming was one of the major aquacultural industries in the United States, researchers claimed that catfish aquaculture had little impact on the environment. "The work that we've done in Mississippi and Boyd's work in Alabama indicate that, given the quality of the streams around here, which is not bad, there is not impact," Tucker told Kreeger.[621] In Mississippi for example, Tucker conducted one study on effluent discharge and reported that there was "relatively little watch discharged from most catfish ponds," and "effluent receiving streams are already heavily impacted by runoff from other agricultural activities, and pond effluents are highly diluted after discharged because stream flow is high."[622] Researchers associated with the industry did not find catfish farming as a concerning point of pollution.

As environmental groups raised their heads at the hopes of living in a cleaner world, farmers—whose livelihoods depended on the catfish—were far from happy. Despite farmers' claims that the catfish could provide clean, unadulterated food, these same farmers chafed at government intervention that would challenge farmers' assertions and agricultural practices. They would have to put their money where their mouth was. Catfish farmers protested the EPA measures to create effluent regulations on their

[621] Karen Kreeger, "Down on the Fish Farm: Developing Effluent Standards for Aquaculture," *BioScience* 50, no. 11 (2000): 950.

[622] Craig Tucker and John Hargreaves, "Management of Effluents from Channel Catfish (*Ictalurus punctatus*) embankment ponds in the Southeastern United States," *Aquaculture* 226 (2003): 6.

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industry. Others blamed the environmentalists. “[The] EDF isn't exactly a place to go for unbiased material! Anybody who looks at what they stand for knows [the] EDF is full of left-wing environmentalists. But despite having these things pointed out to it over and over, [the EPA] keeps on using this “Murky Waters” report as their starting point. Hell, they don't even deny it - hey aren't ashamed of it at all!” one catfish farmer declared in 2001.[623] Other catfish farmers predicted that they would go out of business due regulations.[624] Agricultural economist Carol Engel, who spent most of her career studying the farm-raised catfish industry and who also happened to be on the Aquaculture Effluent Task Force, estimated that some twenty percent of catfish farmers could go out of business if environmental laws took effect.[625]

By 2004, the EPA finalized federal aquaculture regulations. The agency set the Effluent Limitations Guidelines (ELG) and New Source Performance Standards for the Concentrated Aquatic Animal Production Point Source Category. Although the EPA considered catfish farms Concentrated Aquatic Animal Production (CAAP), because they are “hatchery, fish farm, or other facility,” catfish farmers did not have to participate in the NPDES permit program.[626] That is because not all CAAPs operated in the same fashion. If a CAAP fell under the NPDES permit program it had to “use flow-through, recirculating, or net pen systems, directly discharge wastewater, and produce at least

[623] David Bennett, “Catfish Farmers Buck EPA Survey,” *The Delta Farm Press*, January 19, 2001.

[624] “Ross Asked to Help With Catfish Farms,” *Associated Press*, December 27, 2000.

[625] David Bennett, “Catfish Farmers Buck EPA Survey,” *The Delta Farm Press*, January 19, 2001.

[626] Federal Agency Aquaculture Profiles Series, Environmental Protection Agency, September 2013, 1.

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100,000 pounds of fish a year," and had to discharge effluents "at least 30 days per year."[627] Catfish farmer may have produced over 100,000 pounds of fish a year, but they only completely drained their ponds only every ten years or so, and catfish farming was "not covered by this regulation."[628] Overall, most closed pond systems and other facilities that grew molluscan shellfish, shrimp, and crawfish were excluded from the NPDES permit system as well. Alligator farms too did not fall under the NPDES system.

The various studies, surveys, and the task force discovered that catfish farming was just not that polluting. As the farmers celebrated because they did not have to adhere to EPA regulations for CAAPs, their win was offset by the fact that more farmers turned their catfish ponds back into traditional row crops. By 2005, the industry was steadily declining. It was not the agricultural powerhouse it once was. Regardless even 2005, one year after the EPA made its final rulings on CAAPs, of the 1,847 American farms devoted to food fish—excluding ornamental fish, sport fish, mollusks, and crustaceans like crawfish—1,160 were cat farms.[629] Meaning a majority of food fish farms in the United States did not have to adhere to EPA regulations.

Due to the lack of EPA regulations, the industry has been able to highlight a sustainable and eco-friendly image. Today, the catfish industry explicitly uses environmentalist narratives to promote the supposed superiority of their crop. In a

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[627] Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category (Washington, D.C.: United States Environmental Protection Agency Office of Water, March 2006), 3-2.

[628] "Effluent Limitations Guidelines and New Source Performance Standards for the Concentrated Aquatic Animal Production Point Source Category," *Federal Register*, vol. 69, no. 162, August 23, 2004, 51919.

[629] Census of Aquaculture 2005 Census of Agriculture, USDA (Washington, D.C.: Government Printing Office, October 2006), 5.

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brochure published in 2013, the Catfish Institute (TCI), a catfish marketing group, claimed, "You're not only looking out for your family's well-being with U.S. Farm-Raised Catfish, but the earth's as well." The also market, "Good for the planet. Good for you," and crop as the "Sustainable U.S. Farm-Raised Catfish" that is "Endorsed by those who know." Today farm-raised catfish is listed as a "Best Choice" by the Monterey Bay Aquarium's Seafood Watch program, and endorsed by the National Audubon Society, World Wildlife Fund, and the EDF.[630] The EDF readily changed their attitudes on the industry almost a decade after they published *Murky Waters*.

The cormorant, which is still a pest to farmers, is now also used as a marketing device. TCI promotes catfish farmers as environmental stewards and builders of new aquatic homes for wildlife. The agency argued that farmers helped sustain "healthy bird populations" when their natural habitats disappeared, and farmers' ponds "provided safe wetland habitats."[631] TCI claimed that farmers chose the sites of the artificial habitats by "avoiding protected wetlands," and avoiding places history of contamination and pollution especially nearly impossible in the agricultural landscape of the Mississippi Delta. Moreover farmers constructed their ponds to curtail erosion and seepage.[632] Due to farmers supposed environmentally-minded selection of ponds and because they incidentally provided wetland habitats, the agency boasted, "These practices U.S. Farm-Raised Catfish represents one of the most eco-friendly protein sources available

[630] "Where Does Your Catfish Come From?" (Madison, MS: The Catfish Institute, nd), 5.

[631] Ibid.

[632] Ibid.

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today."[633] For the industry the meanings of place and space, provided the catfish farmers' currency as an environmentally and socially conscious folks wanting what was best for nature and consumers. The catfish industry wields and markets environmental causes, an irony that is hard to deny.

The industry promoted notions of control like governmental oversight and food safety regulations and industry stakeholders' control over quality, cleanliness in farm-raised catfish production to demonstrate the safety of the product to consumers' bodies. The "stringent quality controls" ensured "optimum flavor" and a fish that consumers did not have to worry would poison their bodies. Further catfish farmers embrace ideas of regulation to promote the quality of the farmed fish. They now stated that the fish is, "One of the most carefully inspected, regulated and controlled proteins you can buy."[634] Between the 1970s and 2004, the farm-raised catfish industry came full circle.

Four years before the EPA set effluent guidelines for the catfish industry, in 2000, Craig Tucker a found himself on a commercial airliner headed towards Washington, D.C. The pensive scientist pondered about his years of research in aquaculture, and meditated on the task ahead of him in the nation's capital. As part of the AETF, Tucker was en route to a meeting with the EPA's Office of Water. The scientist, a colleague at the Delta Experiment Station, and others would have to decipher effluent limitations for an industry that Tucker spent most of his professional career building up, and for which he conducted research. Nearly a decade earlier some environmental groups cited aquaculture

[633] Ibid.

[634] "Sustainable U.S. Farm-Raised Catfish," (Madison, MS: The Catfish Institute, nd), 4.

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industries, including catfish farming, ecological hazards. Tucker was surprised. "To many of us…the fact that our way of growing food had, by inference, been identified as one of the nine most notorious polluters in the country was nothing less than shocking," Tucker wrote. Four years later in 2004, due to the AETF and the oversight by the EPA, the agency decided that catfish farming was just not that polluting, it did not have to adhere to effluent regulations. Moreover, because of such designations, the crop became one of the most sustainable seafood choices on the market.

Another twist swam around Tucker's head. Some thirty years earlier, when Tucker entered graduate school at Auburn University, many of his colleagues had returned from their services in the Peace Corps. Yet Tucker and his colleagues had bigger dreams for aquaculture. Filled with idealism of the 1960s, they envisioned a world without hunger. "My acquaintances believed that aquaculture's role in world agriculture was to produce low-cost, protein-rich food for peoples in underdeveloped countries…" Tucker wrote. He and his colleagues "looked upon 'growing food for money' as a bourgeois corruption of a noble cause." Many overlooked the environmental impacts and "viewed aquaculture as, at worst, a benign endeavor and, at its best, the soundest imaginable way to grow food." In a plane thousands of feet above the Earth's surface, Tucker whose initial goals were embedded in improving society asked himself, "After all, we had spent a lifetime working to increase aquaculture production in the United States. What had happened?"[635] In the United States, their noble cause became a purely

[635] Craig Tucker, "Forward" in Claude Boyd, *Aquaculture, Resource Use, and the Environment* to be published.

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capitalistic endeavor. Tucker's contemplative airplane ride revealed the ironies and tensions in the environmental narratives of farmed cat's rise.

The designation as a sustainable fish became an important marketing point for the industry that was drowning on a competitive international seafood market by the 2000s. The farm-raised catfish as a materially and sensorially non-descript, non-fishy, tasteless fish, along with a new palatable image of the catfish, made other fish farmers want the same success. Vietnamese catfish that looked, smelled, and tasted much like American farmed cats, flooded the American seafood market by the 2000s. Soon Vietnamese and American catfish farmers duked it out on the international seafood market and in the halls of the Congress. Between the 2000s to the 2010s, as the catfish trade conflicts escalated, American catfish farmers and other stakeholders aggressively pushed their fish as sustainable, pollution-free, and better tasting. They sold cleanliness in fish farming practices, aquacultural waterscapes, and flavor. By the 2000s and 2010s, American catfish farmers had a global catfish fight ahead of them.

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CHAPTER VIII

THE TASTE OF GLOBALIZATION: CATFISH WARS IN THE TWENTY-FIRST CENTURY

In the early 2000s, fish farmers in the United States sharpened their claws for an international catfight. A few years earlier, catfish competitors swam onto the American seafood market. For buyers these catfish products tasted much like the farm-raised catfish that farmers in the Yazoo-Mississippi Delta had grown for decades. But these competitors weren't southern. They weren't even from the United States. They were Vietnamese catfish. Known as *basa* and the closely related cousin *tra*, both are part of the *Pangasius* catfish family. These fish are catfish, but a different species than channel catfish, which are part of the *Ictaluridae* family and the variety that most American fish farmers grow. Because of this taxonomic similarity, importers sold the Vietnamese fish as "catfish." American catfish farmers hissed at any competition and were particularly troubled when consumers could tell no difference. "Tra looks like catfish; tra tastes like catfish," the *New York Times* observed in 2002.[636] This sensorial similitude scared American catfish farmers into defense mode.

By 2001, a trade war broke out between American and Vietnamese catfish farmers. American farmers called on their political allies for backup. What the media

[636] Elizabeth Becker, "Delta Farmers Want Copyright on Catfish," *The New York Times*, January 16, 2002.

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aptly had called the Catfish Wars seemed like a bizarre joke, but the struggle had enormous implications for repairing the diplomatic ties between the United States and the country it had invaded and ravaged only a few decades earlier. After the Vietnam War, the United States had placed an embargo on the small Asian country. By 1995, as relations between the countries began to thaw the United States removed its trade embargo, but trade relations did not fully normalized. In 2001, George W. Bush worked to establish a more liberal trade policy agreement between the two countries. Bush pushed forward the U.S.-Vietnam Bilateral Trade Agreement, which significantly lowered tariffs on imports from Vietnam. "This agreement will increase opportunities for U.S. firms by requiring Vietnam to dismantle a wide range of trade barriers, open its services markets, and provide comprehensive protection of intellectual property rights…" Bush wrote to Congress. He concluded, "Expanding ties between the United States and Vietnam will continue the historic process of normalizing our relations—a process that begun during the first Bush administration and advanced in the Clinton administration with the negotiations of this agreement."[637] Years in development, it was imperative for the United States to repair its economic relationship with a country that it left nearly blown to pieces. American catfish farmers got in the way.

This chapter outlines the major disputes of the Catfish Wars' battles over labeling, anti-dumping laws, and inspection regulations in the early 2000s.[638] The Catfish Wars

[637] Mark McDonald, "Viet Trade Deal Goes to Congress Ratification Expected on Pact Reducing Tariffs for Exports to U.S." *San Jose Mercury News*, June 9, 2001.

[638] To read more on the Catfish Wars, see: Scott Laderman and Edwin A. Martini, *Four Decades On: Vietnam, the United States, and the Legacies of the Second Indochina War* (Durham: Duke University Press, 2013); Becky Mansfield, "From catfish to organic fish: making distinctions about nature as cultural economic practice." *Geoforum* 34, no. 3 (2003): 329-342; Dominique Duval-Diop and John R. Grimes.

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reveal the costs of the material, sensorial, and ideological makeover of the catfish from a wild muddy fish to a near tasteless piece of meat. When Vietnamese catfish was cheaper than the American farm-raised fish, and looked, smelled, and tasted remarkably similar, consumers chose the imported varieties. The American catfish industry fought back with ideas of cleanliness tied to environment and technology in order to create distinction and promote the American crop while slinging mud on the fish from Vietnam. To combat the imports catfish farmers and their political allies use two strategies. They fought for laws that protected American catfish market turf from imports, and they also fought for an *idea* of what the farm-raised catfish was supposed to be: a tasteless, clean, southern food. The Catfish Wars demonstrate one of the great ironies of the fish's history. After decades of effort by farmers, scientists, processors, and groups like the Catfish Institute to pull the catfish from it muddy environments, remake its flavor, and erase and reimagine its place in American culture, fish farmers from around the globe swooped in to take advantage. The decades of work that farmers, processors, and the Catfish Institute put into materially, sensorially, and ideologically transforming the American farmed catfish could wriggle out of their hands in an instant.

Beginning in 2000, although the basa was by no means a new fish it was a fairly new product on the American seafood market. The product was so new that seafood organizations didn't know the appropriate market names for the pangasius species, particularly *pangasius bocourti.* By the summer, the FDA's Office of Seafood concluded that the common market names for the Vietnamese fish was "basa," "swai," "sutchi

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"Tales from two deltas: catfish fillets, high-value foods, and globalization." *Economic Geography* 81, no. 2 (2005): 177-200.

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catfish," and "striped catfish." The agency also stated it would "not object to the use of the name catfish, when used appropriately, to describe these species."[639] After all, the fish is a member of the *Schilbidae* family, which are freshwater catfishes from southern Asia and Africa. Scott Rippey of the FDA concluded, "The FDA approved that *pangasius bocourti*, commonly known as basa, was in fact, catfish. And could be called such on the marketplace."[640] The governmental agency gave the thumbs up: basa was catfish. The product could be sold as such.

On the marketplace, farm-raised cat was farm-raised cat, and American farmers were losing ground from the competition. The Catfish Farmers of America (CFA), a lobby group for fish growers calculated the assessed loss of income for Mississippi farmers. From 1998 to 2000 Vietnamese fillets surged from being 7.6 percent of the fillet market to an astonishing 23 percent.[641] American farmers, CFA claimed, had to drop their prices to compete, which the association pegged at ten cents per pound. Between 2000 to June 2001, catfish farmers processed some 600 million pounds, but lost $60 million dollars due to the price drop.[642] The reason, CFA argued, was basa. Mississippi farmers were hit particularly hard, losing an estimated $40 million of that $60 million. The CFA

[639] Scott Rippey to "Whom it may concern," August 30, 2000, Mississippi Department of Agriculture and Commerce Collection, Series 2751, Box 31651, Folder Catfish, Mississippi Department of Archives and History, Jackson, MS. This draft of a letter was mostly meant to be sent to the various committee on either commerce or agriculture. Hereafter this collection will be known as Mississippi Department of Agriculture and Commerce Collection.

[640] Ibid.

[641] Draft of letter to Mr. Chairman from Lester Spell, Dick Stevens, Louie Thompson, and Ben Pentecost, nd, Folder Catfish, Series 2751, Box 31651, Mississippi Department of Agriculture and Commerce Collection.

[642] "CFA Assessment of Lost Income for Mississippi Catfish Farmers," nd, Folder Catfish, Series 2751, Box 31651, Mississippi Department of Agriculture and Commerce Collection.

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claimed that from June 2000 to June 2001, retailers sold $35 million dollars worth of Vietnamese imports. That was money that did not go into the American farmers' pockets. In the summer of 2001 one catfish farmer declared, "The issue of Vietnamese fish imports is not just a major issue facing catfish growers, right now, it's the only issue."[643] Catfish farmers were incensed by the competition that took advantage of years of cultural work they had conducted. Southern farmers wanted to keep the catfish a southern agroindustry. How could they fight the Vietnamese catfish?

American farm-raised catfish farmers and their political allies began to claim that the basa was, in fact, not catfish. American fish growers called upon their political allies for support. Senate Majority Leader Trent Lott and others quickly rose to defend the fourth most valuable crop in his home state of Mississippi.[644] One day before the September 11, 2001 terrorist attacks, Mississippi senator Roger Wicker told the House of Representatives, "Importing interests of the Vietnam fish, searching for new markets, were allowed by the FDA to use the term 'catfish' in combination with previously approved names. This has resulted in imports entering the U.S. in skyrocketing quantities and being fraudulently passed off to American consumers as 'catfish.'"[645]

Like Wicker the American catfish farming advocacy groups insisted that these foreign animals were totally different fish than the channel cat. "They're coming in and

[643] Doreen Muzzi, "Farmers Feel Pressure of Fish Imports," *Delta Farm Press*, August 10, 2001.

[644] Lisa Breazeale, "Agricultural News," Total Ag Figures Hold Steady despite Troubles (12-17-2001), December 17, 2001, accessed February 11, 2016, http://msucares.com/news/print/agnews/an01/011217_overview.html.

[645] Roger Wicker, "Approving extension of non-discriminatory treatment with respect to products of the socialist republic of Vietnam," *Congressional Record*, 147th Congr., Congressional Record, E 1610, vol. 147, no. 116, E1610..

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saying these are farm-raised catfish, when they're actually a different species all together," Henry Gantz, a spokesman for the Catfish Institute (TCI) declared.[646] Catfish farmers and their allies continued to insist that the Vietnamese and American catfish products were wholly unlike. By the 2000s, southern farmers did not want to give up any of the material, sensorial, and ideological changes and gains they made to the animal since the 1960s.

In 2001, Arkansas Rep. Mike Ross knew this to be the case. "This is a very young industry that has used $40 million from U.S. farmers…to create a catfish market here and abroad where none has existed before," Ross wrote to U.S. Trade Representative Robert Zoellick, Secretary of Agriculture Ann Veneman, and Secretary of Commerce Donald Evans.[647] One catfish farmer echoed the congressman's stance, telling the *Delta Farm Press* that the CFA had worked diligently for "20 to 30 years," to stimulate and foster markets for farm-raised catfish. In truth, the organization had only been in existence for fifteen years, but catfish farmers and industry boosters had spent decades trying to improve the fish's image. "Foreign competition is going to come in and take it from us," the farmer charged.[648] As the American catfish moved up the ladder of acceptability, the American industry wanted to protect their invest of millions of dollars. Bill Allen president of TCI told a reporter that consumers now had expectations for what catfish was supposed to be like, and "then all of sudden here comes a catfish copycat from

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[646] "Legislator Vows to Battle Vietnamese Catfish Imports," *The Biloxi Sun Herald*, June 14. 2001.

[647] "Arkansas Congressman Goes to Bat for Catfish Farmers," *Delta Democrat Times*, June 20, 2001.

[648] Doreen Muzzi, "Farmers Feel Pressure of Fish Imports," *Delta Farm Press*, August 10, 2001.

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Vietnam."[649] The indistinct material and sensorial qualities of the American catfish caused farmers and their allies to protect an image of the crop that could easily transfer to any bland fish.

The farmers and their boosters put much work into making the farm-raised catfish a southern icon. "Catfish is a cultural product; it comes from the American South like barbecue or blues music," said Warwick Sabin, spokesman for Rep. Marion Berry of Arkansas in 2001. He continued, "It is a very specific reference when you talk about catfish."[650] But more, they implied that the catfish image directly correlated to its material being. Nothing else could be "catfish," even if it was taxonomically considered catfish like the basa. "Catfish" more than anything was an idea tied to southern places and identity. National Aquaculture Association Pearl Hebbard-Mulherin observed too, "There isn't a Cajun thing about Vietnam."[651] Catfish farmers and TCI had spent so much money and time convincing Americans, both in and out of the South, that the catfish was worth eating, and that it embodied southern fried goodness among many other images. "We want to make sure that's protected, because that's as good as a brand," Sabin told the press.[652] By the 2000s, the catfish image was as an idea worth protecting.

Industry outsiders too noticed the industry's role in transforming the catfish image into something worthy of praise. One Mississippi disc jockey observed, "We finally have

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[649] Elizabeth Lee, "Asian Import is Fishing for a New Name," *The Atlanta Journal Constitution*, December 6, 2002.

[650] Ronette King, "A Fine Kettle of Catfish," *The Times Picayune*, September 9, 2001.

[651] Dan Chapman, "Catfish Tangle; U.S., Vietnam Fight Trade War Over Down-Home Delicacy," *The Atlantic Journal-Constitution*, December 11, 2002.

[652] King, "A Fine Kettle of Catfish."

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something we can be proud of, something other people want, and look what's happening."[653] An imposture could come in and make profit off of the catfish makeover. The American farm-raised catfish brought up the status of the South, but the actions of the industry's political supporters revealed that they would fight down and dirty. The American farmers first round of attacks on the Vietnamese catfish targeted it name, and American catfish farmers fought for the right to call only their products catfish.

American catfish farmers claimed the Vietnamese catfish was not a catfish at all, but they needed evidence to back up their claims. The CFA asked scientists for help. In the fall of 2001, Stephen Ross, a professor of Biological Science and Curator of Fishes at the University of Southern Mississippi, wrote to his colleague Jim Williams at the Florida Caribbean Science Center, which was a part of the United States Geological Survey. Ross needed some advice. The CFA called upon Ross for help to figure out how to deal with the taxonomic divisions of the catfish families. The CFA wanted scientists to claim that the basa, which are fish from the *Pangasius* family and the channel catfish, which are of the *Ictaluridae* family, were distinct. If they were lucky, scientists would not consider the basa a catfish at all. While Ross did not need to figure out if the basa was a catfish, he was nevertheless confused about taxonomy. "Mississippi is trying to write legislation to force labeling of *pangasiid* catfishes as something other than 'farm raised catfish'" Ross wrote to Williams, and he needed to double-check, was Pangasius, "now placed within the *Pangasiidae* or in the *Schilbidae*" family? Williams had to do homework too. He responded, "I might quick check with you just in case something has happened with

[653] Dan Chapman, "Catfish Tangle: U.S., Vietnam Fight Trade War Over Down-Home Delicacy," *The Atlanta Journal-Constitution,* December 11, 2002.

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catfish systematics that I missed."[654] Williams eventually got back to Ross, and found that, "As far as I know [pangasius] are still *Pangasiidae*." If the catfish industry was concerned with the distinction between catfishes, he suggested the possibly of establishing a genetics laboratory that could test for "what they have."[655]

Ross and Williams's banal exchange revealed to some extent the triviality of taxonomy. When Ross asked Williams if the Panganius was "now placed" in either one of the catfish families, his inquiry suggested that such categories were fluid. Taxonomy was not set in stone. Moreover, Williams's suggestion that catfish industry could set up "genetics laboratory" indicates that the differences between the cat products on the market were so indistinct that the industry had to look to the very fabric of their materiality. As Ross and Williams exchanged their emails, Bennie Keith and Hugh Warren of the CFA received word that HyPure a company that screened agricultural and food products had received their samples of U.S. farm-raised and Vietnamese raised catfish. The CFA was already on the genetics case.

Science could offer a solution, and the catfish lobby group turned to testing catfish genetics to find distinction. In a letter to Warren and Keith, Linda Durig, Hypure's Product Director confirmed, "The objective of the this test was to genetically tell the Vietnamese catfish from the American catfish using the analytical technique; isoelectric focusing electrophoresis." With eight samples of U.S. farm-raised catfish and Vietnamese

[654] Steve Ross to Jim Williams, email, September 5, 2001, Folder Catfish, Series 2751, Box 31651, Mississippi Department of Agriculture and Commerce Collection.

[655] Ibid.

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catfish, HyPure's testing showed that there were genetic differences.[656] The CFA was relieved. The organization quickly wrote to their allies, and Keith wrote to Dr. Marty Fuller, the Associate Director of MAFES that "we would be able to distinguish between the two," catfishes through genetic testing.[657]

The CFA too looked for distinction at the microbial level. Officials at the Mississippi Department of Agriculture and Commerce sent samples to Mississippi State University to be tested for heavy metals, bacteria, and pesticides. The labs did not find much difference between the fillet samples. The only exception was that Harvest Fresh and Cajun Delight, both Vietnamese imports, had "considerably lower" fat content than Mississippi farm-raised catfish. In terms of pesticides, heavy metals, and bacterial content the samples were very similar. For example, both samples tested "strongly positive" for Listeria, but not specifically *L. monocytogenes,* which cause sickness in humans. "The bottom line is that we haven't found anything particularly damning at this point," Reba Ingram wrote to the "Keith" at the Mississippi Department of Agriculture and Commerce, who may have also been Keith from the CFA. Ingram suggested further testing.[658] When American farmers encountered profit losses due to the problem of tastelessness tied to globalization, the CFA's pursued difference through genetics and adulteration testing at a microbial level. This demonstrates that the discrepancies between

[656] Linda Durig to Bennie Keith and Hugh Warren, September 5, 2001, Folder Catfish, Series 2751, Box 31651, Mississippi Department of Agriculture and Commerce Collection.

[657] Bennie Keith to Marty Fuller, September 6, 2001, Folder Catfish, Series 2751, Box 31651, Mississippi Department of Agriculture and Commerce Collection.

[658] Reba Ingram to "Keith", email, September 24, 2001, Folder Catfish, Series 2751, Box 31651, Mississippi Department of Agriculture and Commerce Collection.

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the fishes were so ill resolute—because they are both catfish—that the most subjective and knowable way to understand and discern the difference in food—to taste, smell, and eat it—did not necessarily work in the case of the Vietnamese and American catfishes.

Soon, the CFA and their political allies used genetic tests to argue that the American farm-raised catfish was the only legitimate catfish on the market. In September 2001, Congressman Chip Pickering of Mississippi—who was also a former catfish farmer—told the U.S. House of Representatives that only catfish from the *Ictaluridae* family ought to be called and labeled "catfish." The congressman literally used "science" to justify his cause. "The legislation I'm introducing today relies on science to guarantee American consumers that the catfish they buy is in fact U.S. farm raised catfish, and not any other type of fish," he told the House. Pickering's logic demonstrates the power of science to legitimize a political cause. Only science would be able to create differentiation between American and Vietnamese catfish that looked, smelled, and tasted the similar. The congressman continued to argue that American catfish growers had spent millions "promoting the value and quality of American catfish in markets all around the world," and that labels on the Vietnamese fish imports "mislead consumers into thinking it is the same as American, farm-raised catfish." Pickering declared, "This must be stopped."[659] The basa was catfish, but for American catfish political allies like Pickering buying "catfish" meant to also buy into image, place, and the process to of making the

[659] Email from Rickey Gray to John Rounsaville, September 26, 2001, Re: Pickering Legislation Seeks to Prevent FDA from Calling Vietnamese Fish "Catfish," Folder Catfish, Series 2751, Box 31651, Mississippi Department of Agriculture and Commerce Collection.

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crop. The CFA and their political allies fought to ensure that any fish labeled catfish was born and raised in the United States.

To have a taste for American catfish was both a political and cultural statement. The media like the *New York Times* claimed that the Vietnamese fish and the American cat tasted the same, but for American catfish supporters, eating American meant eating quality, safety, and the process of making the fish. David Nelson of Golden Hushpuppy in Summit, Mississippi stated, “I know where my catfish comes from and I know the standards it goes through.” Derrell Allen of Mr. Whiskers catfish restaurant west of McComb, Mississippi implied that loyalty came from safety standards as well. “We’ve been approached with Vietnamese catfish, and we didn’t want it,” Allen told the *Enterprise Journal.* He observed, “We’ve been here for 15 years selling farm-raised catfish and we owe it to our customers, I believe.”[660] Allen and Nelson implied that the Vietnamese cat was not a safe product, which demonstrated a distrust of the Vietnamese animal, environment, and the factory line.

Others stayed loyal because of the taste. “I’ve tried (basa) and it doesn’t have the catfish taste,”[661] National Aquaculture Association member Pearl Hebbard-Mulherin claimed, and continued, “[Basa] tastes like a stringy ol' mule.”[662] While Hebbard-Mulherin made hyperbolic claims about the differences between the two products, others were more inclined to cite the indistinct qualities. Farmer Austin Jones told a reporter that

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[660] Matt Williamson, “Cheaper Vietnam Catfish a Threat to Key Miss. Industry,” *Enterprise Journal*, October 21, 2001.

[661] Ibid.

[662] Dan Chapman, “Catfish Tangle; U.S., Vietnam Fight Trade War Over Down-Home Delicacy,” *The Atlantic Journal-Constitution*, December 11, 2002.

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if consumers ordered catfish at a restaurant, but were unaware whether it was basa or not, they probably wouldn't bat an eye. "You'd likely never know whether you were eating U.S. farm-raised catfish or not, especially if you are not someone who has eaten catfish all of his life like I have," Jones observed.[663] The unseasoned palate looking for cheap fish was a great danger to the American catfish industry. The effort and money that catfish farmers and processors put into ensuring the blandest meat entered the markets caused problems when the flavorless white flesh was indistinguishable from a cheaper alternative, basa.

Some consumer preferred basa, but they wanted to stay hidden. In 2001, one restaurant owner was so afraid to comment about the Vietnamese fish that he remained anonymous. "My customers, the ones who have eaten the Vietnamese catfish, prefer it over the farm-raised catfish," the anonymous owner of a restaurant in Pike County, Mississippi admitted. If the price for the import or U.S. farm-raised catfish were the same, "I would still use the Vietnamese catfish." The nervous owner pointed directly to a specific texture and flavor that the farm-raised catfish had that was his sticking point for supporting the imports. "The big difference between the farm-raised catfish has a lot of—I call it fat," he said.[664] The perfect farm-raised catfish that the industry worked so hard to create actually wasn't the perfect after all.

Pressure from politicians and locals caused some owners to stay quiet about their choices. The Pike County restaurant owner may have wanted to stay anonymous due to

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[663] Doreen Muzzi, "Farmers Feel Pressure of Fish Imports," *Delta Farm Press*, August 10, 2001.

[664] Williamson, "Cheaper Vietnam Catfish a Threat to Key Miss. Industry."

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the pressures and criticisms spouted out by some politicians and influential leaders in the South. "Any restaurant trying to pass Vietnamese fish off as domestic 'catfish' appear to be more interested in their profits than in the health of their patrons and in supporting American agriculture," David Waide of the Mississippi Farm Bureau Federation told reporters in August 2001.[665] Waide declared that consumers needed to boycott restaurants that snubbed their noses at American catfish farmers. The immense social pressure particularly in places like Mississippi, to stick with the American farmed fish, caused some restaurants to stick with the Mississippi fish, but others happily discussed their use of the imported fish.

The social pressures did not silence all consumers. While one restaurant owner wanted to remain anonymous, Pete Weir the owner of Peter Anthony's seafood restaurant in McComb, Mississippi, openly told a reporter in 2001, "I've used both in the past and believe it or not, most people prefer the taste of the Vietnamese fish." He continued, "Most people who eat it rave about it. The people just want fish that tastes the best."[666] Moreover, Weir observed that sometimes catfish from Mississippi and Louisiana, "have a muddied tasted in certain parts of the year." Although American catfish farmers and processors worked hard to ensure that they produced a near tasteless fish, Weir's experiences suggest that off-flavored catfish regularly hit the market. The varied responses on the Vietnamese and American products indicate the despite catfish farmers claims that their product was superior, the Vietnamese product could out perform the

[665] "Mississippi Restaurants serving Vietnam 'Catfish' Taken to Task," *The Belzoni Banner*, August 15, 2001.

[666] Williamson, "Cheaper Vietnam Catfish a Threat to Key Miss. Industry."

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American any day. This stellar performance scared American farmers and their allies, and they continued to press the importance of the process of making the catfish products to create distinction and loyalty. The catfish farming lobby group exploited consumer fears over food safety and highlight the lack of regulatory bodies in Vietnam.

The CFA argued that the communist country lacked governmental regulatory oversight over catfish production, which diminished its quality. “We don’t know what environment the catfish is in because they don’t have agencies like the Food and Drug Administration and the Environmental Protection Agency to accurately present information,” Hugh Warren of the CFA told a reporter in 2001.[667] Henry Gantz the president of TCI also purported a lack of governmental oversight in the communist county. ‘There is no USDA and FDA inspectors in Vietnam,” Gantz claimed.[668] Without these types of regulatory agencies, the CFA and TCI claimed that Vietnamese farmers and processors produced adulterated, low-qualities catfish impostures. American catfish lobbyists also criticized other aspects of Vietnamese fish production: labor.

The catfish industry blamed cheap labor for cheap imports. Arkansas’s aquaculture coordinator Ted McNulty observed, “The people that work in these processing plants in Vietnam will work for as little as 50 cents a day and we, as a country and an industry, just can’t compete with that.”[669] Tom Turner, Belzoni mayor echoed similar views and told the *London Times*, “We can’t compete with these Mekong guys.

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[667] Timothy Brown, “U.S. Catfish Industry Gearing up for Import Fight,” *Bolivar Commercial*, June 20, 2001.

[668] Williamson, “Cheaper Vietnam Catfish a Threat to Key Miss. Industry.”

[669] “Legislator Vows to Battle Vietnamese Catfish Imports,” *The Biloxi Sun Herald*, June 14. 2001.

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They ain't got no minimum wage." Senator Blanche Lincoln of Arkansas argued that "mothers coming off government assistance, single moms who have never had a job before, breaking the cycle of poverty," were the ones who would suffer the most if the U.S. farm-raised catfish industry was not protected.[670] Ironically to counter the cheaper Vietnamese fish produced by low paying work in Vietnam, American boosters used the imagery of poor American catfish processing workers that killed, gutted, and filleted fish on U.S. soils. They argued that if the American farm-raised catfish declined it would take jobs away from poorly paid exploited Americans.

By the fall of 2001, the American farm-raised catfish farmers had cause to celebrate. In November, President Bush signed into law the 2001 Agriculture and Rural Development Appropriations Act. Only catfish born and raised in the United States could be called catfish. "We feel that we are finally getting a foothold in solving this dilemma of consumer confusion by the marketing misrepresentation of several different species of Vietnamese fish," Hugh Warren of the CFA told the *Delta Farm Press*.[671] The implications for the law meant that term "catfish" was only a term that could be used for American products. One legal scholar observed, "The term 'catfish' now has effectively become a national trademark."[672] Warren had his politicians to thank for making "catfish" solely an American, and particularly a southern object. "What also made it happen was the immense support we received from our Mid-South congressmen and their

[670] Paul Blustein, "Free Trade's Muddy Waters," *The Washington Post*, July 13, 2003.

[671] Doreen Muzzi, "Catfish Labeling Signed into Law," Catfish Labeling Signed into Law, December 21, 2001, accessed February 11, 2016, http://deltafarmpress.com/catfish-labeling-signed-law.

[672] Xuan-Thao N. Nguyen, "Nationalizing Trademarks: A New International Trademark Jurisprudence?" *Wake Forest Law Review* 39 (Winter 2004): 5.

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staffs," the CFA vice president observed. As American catfish farmers found the government, yet again, working for their interests, onlookers found the labeling law to be an absurd display of protectionism.

The name game caught international criticism. "But if it looks like a catfish, swims like one and tastes like one, why can it not simply be called catfish?" the *Straight Times* of Singapore asked in November 2001.[673] The reporter quickly recognized that larger forces were at play and wrote "Chalk it up to the pressures of globalization [sic]."[674] Some southern politicians too did not care for the differentiation between the catfishes. Republican Texas Senator Phil Gramm observed, "Not only does it look like a catfish, but it acts like a catfish. Why do we want to call it anything other than a catfish?"[675] Still others like Nguyen Tu Cuong the director of the Vietnamese National Fisheries Inspection Centre observed of that the labeling dispute stemmed from ways to distinguish fishes that were ostensibly the same. He observed, "The Americans are making it difficult about the name because they are afraid Vietnamese catfish exports will spoil their economic status."[676] Despite the labeling law, the government did not readily enforce the impotent labeling rule. The industry continued its fight for American catfish supremacy even after Congress passed labeling legislation in favor of American farmers.

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[673] Kay Johnson, "When is a Catfish Not a Catfish?" *The Straight Times*, November 7, 2001.

[674] Ibid.

[675] Dan Chapman, "Catfish Tangle; U.S., Vietnam Fight Trade War Over Down-Home Delicacy," *The Atlantic Journal-Constitution*, December 11, 2002.

[676] Johnson, "When is a Catfish Not a Catfish?"

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Catfish farmers and their supporters turned to scare tactics that tied quality to notions of cleanliness, environment, and race. In the early 2000s, a study conducted by the CFA on the Vietnamese catfish industry found the cages were catfish grew were "located beneath huts where families live. The fish feed on anything that falls into the rivers from the huts."[677] The study also cited disease statistics among Vietnamese people. "Forty-five percent of the population in Vietnam is infected with Hepatitis B and Hepatitis C," the report published.[678] Farmers were quick to dump on what they deemed a trash fish due to environmental quality and the people who grew and lived in the regions that grew the fish. The study implied that Vietnamese catfish could infect American consumers with disease. Belzoni mayor Tom Turner told the *London Times*, "People are going to restaurants and eatin' this Vietnamese sewer food…Cos' that's what it is. It's grown in the Mekong Delta. I've seen things they feed those fish you just wouldn't believe."[679] Arkansas Representative Marion Berry too stated, "That catfish is produced in disgusting conditions on the Mekong River, which is one of the most polluted watersheds in the world."[680] The American catfish farmers also used historical memory of the environmental destruction and pollution wrought by the U.S. military during the Vietnam War. "That stuff [Agent Orange] doesn't break down. Catfish are bottom

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[677] "Vietnamese Fish Industry Article Highlights," Folder Catfish, Series 2751, Box 31651, Mississippi Department of Agriculture and Commerce Collection.

[678] Ibid.

[679] Tim Reid, "Deep South is Just a Whisker from War with Vietnam," *The Times*, July 26, 2002, 14.

[680] Dan Morgan, "Vietnamese Catfish Rile Southern Lawmakers," *The Washington Post*, September 10, 2001.

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feeders and are more likely to consume dioxins that were sprayed as defoliants," Berry continued.[681] American catfish boosters tied environmental and human degradation to the quality of the imported fillets, and argued that it was downright unfit for American consumption. While the American industry presented itself as an advocate for consumer well-being critics condemned American catfish farmers' actions as halting the flow of globalization.

Catfish farmers were opportunistic capitalists, and they wanted regulations when it suited their needs. "We certainly are for free trade, but we don't have to sit here and have our market overrun without taking action to correct it when we think there's some wrongs," Hugh Warren of the CFA told *Fish Farming News* in 2001.[682] The American industry quickly defended its honor. "It has nothing to do with trade and competition…there's economic fraud involved here. It's a deliberate fraud," Hugh Warren empathically told the press. The catfish industry argued that the basa was "riding on the public's acceptance of our U.S. farm-raised catfish,[683] Warren later asserted that it was a "a scheme."[684] Catfish farmers and the CFA framed their arguments around authenticity and safety to off-set any criticism that they tried to hinder capitalism. Despite the critics, the CFA and their political allies continued to assault the Vietnamese catfish

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[681] Ibid.

[682] Stephen Rappaport, "Catfish Farmers Enlist Big Guns to Resist Imports from Vietnam," *Fish Farming News*, March/April 2001, 5.

[683] Ronette King, "A Fine Kettle of Catfish.".

[684] Williamson, "Cheaper Vietnam Catfish a Threat to Key Miss. Industry."

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industry. By 2002, the American catfish industry stakeholders accused Vietnamese importers of illegally dumping the Asian catfish onto the American market.

Regardless of American catfish farmers and their political allies claims that they believed in a free market, others smelled something rotten and fishy. Arizona Senator John McCain asserted, "No doubt…on behalf of several large, wealthy U.S. agribusinesses that will handsomely profit by killing competition from Vietnamese catfish imports."[685] Vietnamese deputy minister for fisheries, Nguyen Thi Hong Minh, echoed McCain's sentiments. The anti-dumping laws that the American farmers and the supporters lobbied for, "Protect the interests of a relatively small group of wealthy catfish industrialists at the expense of the free trade spirit and the best interests of the United States consumer," the Vietnamese Deputy Minister of Fisheries claimed.[686] Greg Rushford an editor for the *Washington Newsletter* observed in 2002, "We negotiate a bilateral trade deal with a Vietnam and encourage them to move away from Marxist-Leninist economics and to trust their fortunes to the free market—then we turn around that hit them with this catfish protect." Rushford continued, "It's pretty smarmy."[687] The Vietnamese government was also unhappy. "More than 20 years after their failure during the Vietnam war, they opt to launch a new war, not to fight communism, but to combat Vietnamese tra and basa catfish," the Vietnamese embassy posted on their website in

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[685] Elizabeth Becker, "Delta Farmers Want Copyright on Catfish," *The New York Times*, January 16, 2002..

[686] Seth Mydans, "Americans and Vietnamese Fighting Over Catfish," *The New York Times*, November 5, 2002.

[687] Chapman, "Catfish Tangle; U.S., Vietnam Fight Trade War Over Down-Home Delicacy."

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early 2002.[688] By 2003 the U.S. International Trade Commission (USITC) found Vietnamese importers guilty of dumping a cheap mess of catfish onto the American market. The ITC placed thirty-seven to sixty-four percent tariffs on the imports. Critics, including the Vietnamese government couldn't believe that that US government would continue to facilitate and undermine its own political agenda for a small faction of farmers frightened by global competition.

The implementation of the duties were not ignored by critics. Free traders were incensed by the catfish protectionism. *The New York Times* called out the labeling law an "Orwellian tactic" and encouraged customers "in search of egalitarian fare" to demand "basa and tra by name as a rebuff to this nation's protection bottom feeders."[689] Vietnamese catfish farmers too, did not sit quietly as the United States government punished them for successfully tapping the farm-raised catfish market that was dominated by southern planters. Over 40,000 Vietnamese catfish farmers signed an angry petition that asserted that the U.S. trade decisions, "ignored the trend toward competition and integration according to established international practices, not to mention the great difficulties it causes our way of life."[690] A Vietnamese catfish farmer observed that the United States "preaches free trade," but once another country became successful, "they change their tune."[691] The general secretary of the Vietnam Association of Seafood Exporters echoed a similar sentiment and alluded to the United States' destruction and

[688] Becker, "Delta Farmers Want Copyright on Catfish."

[689] "The 'Free Trade' Fix Is In," *The New York Times*, July 25, 2003.

[690] Blustein, "Free Trade's Muddy Waters."

[691] Editorial Desk, "Harvesting Poverty; The Great Catfish War."

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massacre of Vietnamese and, "Our nation has a heavy history, and we try to forget it, try something new based on a spirit of cooperation and free trade, but now we are made to wonder whether you wish us ill, as much in the present as you did in the past."[692] The American farmers rubbed the catfish into the wounds of war.

By 2005, science legitimized what American catfish farmers feared most. A study conducted at Mississippi State University by food technologist Doug Marshall found that no matter their genetic differences the basa and American channel catfish fillets were nearly indistinguishable. "Both fish were about the same in terms of quality and safety indicators," Marshall discovered. In terms of nutrition, basa and farm-raised catfish were about the same too.[693] But the Marshall's taste test was the game changer. Marshall found that one in three American consumers actually *preferred* the Vietnamese import.[694] "The majority of these, of course, are regular consumers of catfish. It's not like they're unfamiliar with the products," Marshall concluded.

Catfish farmers and its lobbying arm TCI were naturally unhappy with Marshall's tests. Mike McCall of the CFA observed, "We think this is very misleading."[695] But rather than fight the conclusion of Marshall's tests, American catfish allies denied it. Arkansas Congressman Mike Ross still claimed that the American product tasted better

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[692] Ibid.

[693] Janet McConnaughey, "Catfish Go Head to Head in Taste Test at University," *Houston Chronicle*, July 19, 2005, accessed February 11, 2016, http://www.chron.com/life/food/article/Catfish-go-head-to-head-in-taste-test-at-1580012.php.

[694] Ibid.

[695] Davis Brister, "Taste-Test Angers Catfish Farmers," MSNewsNow.com, nd, accessed February 11, 2016, http://www.msnewsnow.com/story/3614916/taste-test-angers-catfish-farmers.

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by conjuring ideas of place and cleanliness. “I can clearly tell you the difference between a farm-raised catfish from Arkansas, Louisiana or Mississippi and a basa fillet that was raised in a polluted river in Vietnam,” the Arkansas congressman declared.[696] For some, taste was political.

Shortly after these studies, foreign catfish briefly became an issue of international security that too tied to adulteration and filth.[697] In August 2005, southern states like Alabama and Louisiana banned the basa on the account that Vietnamese farmers used antibiotics prohibited in the United States. Southern farmers and their political allies wielded a novel accusation to protect their catfish turf. Jesse Campbell of the Alabama Cooperative Extension observed that Alabama and Louisiana’s ban on the basa came from “The apparent intent to protect people from virulent infections and bioterrorism…”[698] As the United States fought an international war on terrorism, suddenly the catfish too became part of the struggle. But as Alabama and Louisiana tussled against the imported cat, observers criticized the ban for retarding the growth of capitalism in Vietnam. “As if Vietnamese Al Qaeda operatives were planning attacks on the use by poisoning the country's catfish exports,” Radley Balko sarcastically wrote for *Fox News* published that year.[699] He continued, “Because of the players involved, the

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[696] McConnaughey, "Catfish Go Head to Head in Taste Test at University.”

[697] Morgan, “Vietnamese Catfish Rile Southern Lawmakers.”

[698] Scott Laderman, "A Fishy Affair, Vietnamese Seafood and the Confrontation with U.S. Neoliberalism," in *Four Decades On: Vietnam, the United States, and the Legacies of the Second Indochina War*, ed. Edwin A. Martini and Scott Laderman (Durham: Duke University, 2013), 183.

[699] Radley Balko, “Catfish Wars: Why Is U.S. Blocking Capitalist Progress in Vietnam? | Fox News,” *Fox News,* February 02, 2006, accessed February 11, 2016,

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catfish wars aptly illustrate the absurdity of nativist thinking. Thirty years after the last U.S. troops died in Vietnam, that country is inching its way toward capitalism...it's now the U.S. government that's standing in its way."[700] It seemed American catfish farmers and those who had a vested interest in keeping the industry alive and well in the South would go to great lengths to drag the Vietnamese fish into the mud.

The farm-raised industry continued to fight for the idea of place to ensure distinction between the commodities. Part of the 2002 and 2008 Farm Bills, the US government required new country of origin labeling for food including various meats, fruits, vegetables, and catfish.[701] In 2008, Mississippi passed another type of labeling law. Restaurants had to inform their consumers where their catfish was born. "This is possibly the most significant piece of legislation the Mississippi Catfish Industry or, for that matter, the entire U.S. Farm-Raised Catfish Industry has ever had," said Roger Barlow, president of TCI claimed. "Since Mississippi is the leading producer of U.S. Farm-Raised Catfish, other catfish-producing states, including Alabama, Louisiana and Texas, are looking to us for leadership in establishing C.O.O.L. legislation," he concluded.[702] The CFA couched the new labeling laws in terms of consumer protection. "This legislation should not be considered a burden for any restaurant, but it should be considered a

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http://www.foxnews.com/story/2006/02/02/catfish-wars-why-is-us-blocking-capitalist-progress-in-vietnam.html.

[700] Ibid.

[701] Jennifer L. Pomeranz, *Food Law for Public Health* (New York: Oxford University Press, 2015), 126-128.

[702] "Catfish Country of Origin Labeling (C.O.O.L.) Law Begins July 1," *Reuters*, June 27, 2008, accessed February 11, 2016, http://www.reuters.com/article/idUS240111+27-Jun-2008+BW20080627.

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validation of doing what is right for the consuming public," said Keith King, president of Catfish Farmers of Mississippi.[703] The labeling laws reinforced the strategies that American farmers repeatedly employed: they created distinction between the filthy and unadulterated. Much like the early American industry years when farmers and marketers differentiated their products from the wild fish by selling environment, cleanliness, and technology, by the 2000s, they again sold distinction by selling the same qualities. However, instead of an amorphous dirty waterscapes from which fisherman pulled the wild animal, the labeling laws reinforced the notions that specifically Vietnamese production, environment, and people were inferior and dirty, which tied to where the animal lived, what it ate, and how it died. Although groups like the CFA and TCI claimed they only wished to protected consumers, they protected their markets by selling ideas of what they consider proper spaces for cultivating food.

If labeling laws and anti-dumping suits did not curb the flood of Vietnamese imports on the seafood market, the American catfish farmers lobby group looked to enforcing stricter inspection programs for the products. In the 2008 Farm Bill, the USDA would begin a new catfish inspection plan. Some thought that USDA catfish inspections would be an absurd waste. In 2010, Byron Truglio who worked for the FDA's Division of Seafood Safety said, "It's laughable." He did not understand why catfish was singled out. "No one is eating raw catfish sushi. This is a very, very low-risk product," the safety officer declared.[704] The FDA administered inspections for seafood sold in the US, but

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[703] Ibid.

[704] Kimberly Kindy, "Expecting Something Fishy; USDA Rules to Emerge From Long Battle Over Imported Catfish," *The Washington Post*, February 16, 2010.

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farmers observed that the agency only inspected two percent of imports. Changing catfish inspection from the FDA to the USDA would mean that all catfish would be inspected in the United States.

But industry outsiders, yet again, sensed foul play. John McCain argued that the USDA protocols smelled like protectionism, but Mississippi politicians decried such allegations and stood behind the food safety cause.[705] But even the Government Accountability Office (GAO) smelled what *the Wall Street Journal* called "fishy, special-interest protectionism" and a "high risk for waste, fraud and abuse."[706] Since 2008, the USDA tried to implement the inspection program, but failed. By 2015, the implementation of the inspection program was still on the books. In May 2015, Senator McCain continued to criticize the program. "The true purpose of the catfish program is to create a trade barrier to protect a small, handful of catfish farmers in two or three southern states," McCain observed. He continued that the program was "One of the most brazen and reckless protectionist programs that I have encountered in my time in the U.S. Senate."[707] A small group of farmers and politicians could get their way yet again.

American catfish farmers finally got want they wanted. On November 24, 2015, a day before many Americans celebrated with family and friends and filled their plates with turkey, cranberry sauce, and mash potatoes, the USDA finally established an inspection program for catfish. Gavin Gibbons a spokesman for the National Fisheries

[705] Mario Ritter, "In the US Senate, Heated Debate Over Catfish," *Voice of America*, May 21, 2015, accessed February 11, 2016, http://learningenglish.voanews.com/content/in-the-senate-heated-debate-over-catfish/2782133.html.

[706] "Averting a Catfish War," *The Wall Street Journal*, December 4, 2013.

[707] Ritter, "In the US Senate, Heated Debate Over Catfish."

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Institute, and a vocal opponent of the inspection program, observed that program was just "'an extra helping of government waste' just in time for Thanksgiving." He further observed, "Keep in mind that FDA already regulates seafood and now USDA will too. That means USDA and FDA in the same processing plants doing the same job. And what will this cost taxpayers? Only $170 million."[708] New Hampshire senator Jeanne Shaheen stated, "I am extremely disappointed with the Obama administration's decision to implement these unnecessary and harmful regulations…" and that the new inspection program appeased "a small special interest group."[709] The USDA would inspect only catfish, domestic and imported, and all other seafood would continue to be inspected by the FDA.

Beginning in March 2016, the USDA will inspect all catfish. American catfish farmers couldn't be happier. On December 2, 2016, the agency stuck by its claims that their staunch support of the USDA catfish inspection program was rooted in the industry's altruistic goal of protecting consumers from the supposedly dirty, adulterated cats from Vietnam. "This effort has always been about food safety. After years of almost non-existent FDA inspection of imports, placing the health of consumers at risk, we are on the road to raising consumer confidence in the catfish products sold in our stores and our restaurants," the Catfish Institute stated. The lobby had its powerful southern political allies to thank for this new program, which critics called wasteful. "We also want to

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[708] "USDA Releases New Catfish Inspection Program," *Undercurrent News*, November 27, 2015, accessed February 11, 2016, https://www.undercurrentnews.com/2015/11/27/usda-releases-new-siluriformes-inspection-program-including-catfish/.

[709709] Dan Flynn, "USDA Plans to Begin Catfish Inspections in March 2016," Food Safety News, November 25, 2015, accessed February 11, 2016, http://www.foodsafetynews.com/2015/11/usdas-domestic-and-foreign-catfish-inspections-will-begin-in-march-2016/#.VnHM-MrP_UA.

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express our gratitude to Sen. Thad Cochran and all of the Members of Congress who helped make this rule a reality," TCI stated on December 2, 2016. The question of whether the new program will bring a peaceful end to the Catfish Wars remains an open one.

What is clear today is that catfish farming in the U.S. is in waning. Since 2000, farmers have bulldozed their ponds in increasing numbers. There are multiple reasons, including the competition and low prices brought by the Catfish Wars, the pull of higher prices for soybeans and corn, which are the primary ingredients in increasingly expensive catfish feed, and competition from yet another bland fish, tilapia. In July 2000, Mississippi farmers, the leaders of catfish production, had 111,500 acres under water, with about four hounded operations. Eight years later, Mississippi farmers cultivated much less: only 80,400 acres of water in 330 operations.[710] Catfish consumption by the pound has also decline. For instance, in 2006, American farm-raised consumption ranked 6th in the nation with Americans consuming about 0.97 lb of catfish a year. Tilapia ranked 5th that year. By 2014, Americans consumed on average 0.52 lb of catfish, 1.44 lb of tilapia, and 0.70 lb of panganius fishes like basa or tra.[711] In 2014, pond acreage in the Magnolia State had fallen to 41,300 acres and a year later 37,000 acres of ponds roiled with catfish.[712] In the first fifteen years of this century, then, the state's catfish acreage

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[710] Jeff Ayers, "Catfish Farms Sinking," *The Clarion Ledger*, August 10, 2008.

[711] "Top 10 Consumed Seafoods," Top 10 Consumed Seafoods, accessed February 11, 2016, http://www.aboutseafood.com/about/about-seafood/top-10-consumed-seafoods.

[712] National Agricultural Statistics Service, Agricultural Statistics Board, USDA Catfish Production, July 25, 2014; National Agricultural Statistics Service, Agricultural Statistics Board, USDA Catfish Production, July 24, 2015.

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had fallen by two-thirds. Indeed, the American catfish seemed headed back to its muddy hole in the wild.

Over forty years, the farm-raised catfish industry had successfully transformed the muddy wild catfish into a bland domesticated crop. But that success led ultimately to the industry's collapse. The Catfish Wars offers an example of what happened when a successful product was too materially and sensorially indistinguishable, but has an *image* that people liked. Imposters came in and took the market. As American and Vietnamese catfish farmers vied for space in an international seafood marketplace where consumers wanted cheap, tasteless farm-raised catfish, American catfish farmers had to convince American consumers that their product was somehow better, even when the fish tasted alike, or when the globalized fish tasted better. Catfish farmers and their allies desperately tried to offset the flavor of globalization through laws and regulations, but into 2015, American consumers continued to buy Vietnamese imports and the American farm-raised catfish industry continued its decline. On the international market when the competition was too good at making a cheaper, indistinguishable product, American catfish industry held dear to their southern catfish image, while they also sold ideas of technology, environment, and nationalism. That was price of the taste of globalization. The Catfish Wars demonstrated that the industry had indeed materially, sensorially, and ideologically transformed the animal into something worth fighting for, and ironically, something they now had to fight for.

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CHAPTER IX

CONCLUSION WILDLY IRONIC

There were actually two parts to that 2013 "Louisiana" episode of *Mind of the Chef* that opened this dissertation's introduction.[1] In the second-half, the location moved from the crowded dining room of the famed Middendorf's Restaurant where Brock, Donald Link, and John T. Edge ate and eulogized the crop in thin-fried form, to the show's sterile demonstration kitchen where Brock prepared and extoled the fish. There Oxford, Mississippi's famed chef John Currence joined Brock, the scruffy chef who donned a "Make Cornbread, Not War" weathered baseball cap and carried an arm full of brightly colored vegetables tattoos. Their goal: to rip off Middendorf's famous thin-fried catfish. They admired the dish because they thought it tasted good, which for them, stemmed from its characteristic preparation: more cornmeal and less cat. "I like that idea because it's like more breading, and it's super, super simple," Brock told Currence. The Oxford chef agreed.

With a recipe in mind, they had to decide who would make the famous dish. "Do you want to attempt this? Or do you want me to?" Brock asked Currence who simply smiled, "I want you to, *chef*."[2] As Edge observed in Middendorf's dining room, the work

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[1] "Louisiana," *Mind of the Chef* (Public Broadcasting Station, September 28, 2013, http://www.pbs.org/food/features/mind-chef-season-2/

[2] The author placed emphasis on "chef."

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that went into making the famed dish was vital, and Currence would have agreed. He told Brock, "These ladies in their cutting room can cut front handed, back handed, they'll take two or three fillets out a side, and it is cool that it is so popular that they continued to build it…" linking the kitchen staff's labor to the popularity of the dish and contributing to the growth of the restaurant. As Currence watched Brock cautiously slice off catfish slivers horizontally from a single fillet fish into the thinnest pearly pinkish white pieces he could, there was a momentary burst of laughter. "Oh you're getting cocky now, aren't you," Currence smiled. "I nearly cut my hand off!" Brock's remark pierced through his own laughter. The fillets now culled from the animal, it was time to season, dip, and roll the slivers into the remaining ingredients.

As Brock worked, the others spread some farm-raised catfish gospel. "You know what I like about catfish?" Brock asked, as he sprinkled the near tasteless fillets with salt. "It's mostly farm-raised when you get it in a restaurant. I think that it's so important for us to embrace. Because we've over fished the waters," Brock preached. The fish could be a solution to appetites that could no longer depend on depleted waterscapes. Yet he recognized that buyers couldn't taste sustainability. Hunger for the fish still depended on image. "Catfish has a reputation for being a little bit muddy," Currence observed. Reflecting on the long history of taste associations with the animal, he described how these off flavors caused the fish to be considered by most "pedestrian seafood" and he added that the fish was "not really given credit for being as good as it is." Currence's observation of the fish's image did not clearly meet the reality. For sure the fish was had a downhome image, but by virtue of its mere presence in Brock's award winning restaurant made it more than pedestrian. The fish was high class too. It was a fish sought

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after in fancy eateries, but also found in places like Middendorf's with Formica-topped tables and wall-to-wall wood paneling most thought tacky.

Brock continued to diligently, but delicately work. Brandishing long tweezers to dip the pinkish white pieces into buttermilk, he coyly asked, "You think they use tweezers at Middendorf's?" Looking at Brock armed with the tools of sterile precision, Currence bluntly stated, "We would not get a job there, I don't think." The two men chuckled. Brock too agreed that he wouldn't make it on the Middendorf's line for long.[3]

Prep talk turned into ingredient talk, and Brock and Currence turned, as the former remarked, "something classic, beautiful, and something that's been done so well and for so long," and they made it their own. Anyone who pays attention to the growing industry that is southern food boosterism—as seen in the glossy magazines like *Garden & Gun* and on countless television programs—knows, Brock is known for his enthusiastic preservation of heirloom southern ingredients, like corn, rice, peas, and perhaps especially, pigs. He is often heard celebrating the notion that food tasted better in the past.[4] By making Middendorf's classic their own, the scruffy chef proudly stated, "We're using this beautiful catfish. We're using Cruse Family buttermilk. We're using Anson Mills Cornmeal from heirloom corn." The ingredients mattered. "You can smell that. It smells like you're in a field because that's how food used to taste. It used to be all heirloom. It used to all be fantastic," Brock observed as he used his long sterile metal

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[3] "Louisiana," *Mind of the Chef*.

[4] For more information about Brock's philosophy on food, see: Burkhard Bilger, "True Grits - The New Yorker," *The New Yorker*, October 11, 2011, accessed February 11, 2016, http://www.newyorker.com/magazine/2011/10/31/true-grits.

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tweezers to dredge the industrially raised farmed catfish slivers in flour, family-farmed buttermilk, and heirloom yellow cornmeal. Brock then delicately dropped the pieces into the inviting hot golden oil in an electric fryer. The pieces curled, browned, and crisped up.

As the fish bubbled away in the grease, the discussion turned to the role of the chef as educator. “That’s the great thing about what’s happening with food now…” Currence observed, that chefs and consumers alike were more interested in where ingredients came from. “You’re learning as much of the history of food and the importance of why we gotta get away from GMOs…” Currence stated. Brock agreed. “You’re learning about agriculture,” the baseball capped chef declared. *Mind of the Chef* fed that culture. “It used to be that the role of the chef was very simple. You just made food taste good. Now people are becoming more and more interested in our food systems, and therefore they have more questions, and they look to us for the answers,” Brock claimed. For this episode, it was their job to teach people the importance of catfish, specifically the farmed kind.[5]

The teach-in was nearly complete. Looking at the browned crispy fried catfish that Brock dumped out of his fry basket, he observed, “Well it’s not Middendorf’s, but whatever.” For sure, it wasn’t Middendorf’s. Their dish wasn’t the “muscle memory” of generations of cooks.[6] It was the product of Brock’s refined tastes, his use of tweezers, sustainable ingredients, and then farm-raised catfish. The chefs’ demo was far removed

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[5] *Mind of the Chef*, “Louisiana.”

[6] The fillet was still the product of low-wage work, however. See, Chapter Five for more details.

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from the actual Louisianan restaurant's environment, but in the end they still both came out with a similar product. Despite their care to use ingredients that they valued more than those used at the Louisiana fish house, even Currence and Brock admitted that their end product wasn't as good. "I don't think that they'll take your Beard Medal back," Currence said to Brock. As Brock plated the fish they discussed the ways they enjoyed their fried catfish and listed condiments like tarter sauce and lemon. Comparing Brock to a renowned innovative chef known for molecular gastronomy, Currence joked, "You're the Grant Achatz of fried catfish." As both men heartily cut up, the tattooed chef squeezed a lemon over the freshly fried fish. The two men admired his work. Through the laughter, Currence uttered, "Take two, mind of a fry cook," and the segment ended with a shot of Brock's glistening thin-fried creation. It was, as Donald Link told *Mind of the Chef* audiences, the "south embodied in one bite of food."[7]

The *Mind of the Chef* segment revealed the ironic twists of the catfish makeover. The crop's agricultural reality as an agroindustrial food that relied on GMO based feeds and cheap labor was obscured by its multifaceted image, particularly its image as a humble fish. Although Brock emphasized the importance of catfish aquaculture as a good choice for consumers, he tied this action of culinary environmental stewardship to romantic notions of the past. The farm-raised catfish became downhome and southern as the other ingredients, like heirloom cornmeal and family-farm-made buttermilk.[8] Unlike the other ingredients that moved Brock's celebration of localism and care in agriculture

[7] Reference from introduction.

[8] For more information about farm-raised catfish feeds, see: "FAQs - U.S. Catfish," U.S. Catfish, accessed February 11, 2016, http://uscatfish.com/faqs/.

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forward, however, the bland farmed catfish was a product of a vertically integrated agroindustry. Despite its connection to "Big Ag," for these southern chefs who professed to care so deeply about the sanctity of historically accurate and sustainably grown food, the fish's agro-industrial reality disappeared under the buttermilk and the fried heirloom cornmeal. Brock literally covered the farmed catfish with heirloom ingredients, and so too the catfish suddenly became heirloom.

For chefs like Brock, getting back to what ingredients used to taste like is imperative. Armed with the notion that food just tasted better in the past, Brock's adoration of the farm-raised fish is wildly ironic. Brock celebrates the diversity of smells and flavors of the heirloom ingredients, though the farmed catfish industry has worked hard to standardize catfish bodies and their flavors. The work that American farmers, processors, and marketers put into taking a single species of catfish, the channel cat, and making a standardized bland meat product was anything but heirloom.

The work of farmers, processors, and groups like the Catfish Institute contributed to the transformation of the fish from a muddy wild animal to a bland domesticated crop. Because of the work of farmers, processors, and advocacy groups the catfish became an acceptable and likeable underdog. It had lost its image of dire poverty, blackness, and filth. The enormous amount of work to materially, sensorially, and ideologically whitewash the fish left it at worst with a "pedestrian" image.

The urgency of Brock's farmed cat gospel was real. By the time the famous chefs convened in 2013, the farm-raised catfish industry was in trouble, and farmers had seen it coming. A few years earlier in 2008, John Dillard, a prominent Delta catfish farmer observed, "It's a dead business." With cheaper bland Vietnamese imports on the

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international seafood market, the farmer knew that, "People can eat imported fish."[9] Coupled with high commodity prices for corn and soybeans, which were the main ingredients in catfish feeds, farmers found that raising the fish was just too expensive. For Dick Stevens the president of Consolidated Catfish Producers in Isola, Mississippi, the decline of the industry was also tied to the fish's image. Although he observed that, "Times were too good, perhaps," which indicated that it was a prosperous industry at one point, Stevens blamed the fall of the farmed cat to ineffective marketing, especially when the industry could not combat imported catfish. "In retrospect, the name probably should have been changed. Chilean sea bass would not have eclipsed the catfish if it were still known as the Patagonian toothfish, nor would orange roughy have become so esteemed as the slimehead," Steven observed. Although catfish farmers, processors, and TCI worked hard to ensure that they created a marketable commodity, Stevens complained, "We didn't focus on the market or on the product."[10] But that was anything but true. With the help of the land-grant research complex, farmers, processors, and researchers had spent a lot of time thinking about the how to make the farm-raised catfish as marketable as possible. As bulldozers rolled through the rural South in the early twenty-first century pushing dirt into former ponds, most farmers simply wanted to forget the enormous amount of time and effort spent to make the catfish marketable. Although Stevens continues to work in the catfish industry today, it seemed momentarily in 2008 that his ventures in farming catfish had been a lost cause.

[9] David Streitfield, "Soaring Feeding Costs Killing off U.S. Catfish Farms," *The International Herald Tribune*, July 19, 2008.

[10] Ibid.

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Is the farm-raised catfish tasteless, cheap, and southern? It depends on what we mean by tasteless, what we mean by cheap, and what we mean by southern. The material, sensorial, and ideological transformation of the wild muddy cat to a bland domesticated animal has touched on tasteless as a both a sensorial and ideological issue, cheap as a product of price and labor, and southernness as a changing and fluid idea. On the sensorial level, the work of farmers, processors, and researchers and their subjective battles for the right-tasting cat reveals that even the idea of bland or near tasteless is contextual and subjective. The pursuit for tastelessness was a gustatory minefield. Cheap? The wild cat certainly qualified, but from the beginning the farm-raised catfish was never cheap. When the product first hit the markets in the 1960s, it was much more expensive than chicken, beef, or pork. The price belied its image as food for poor people. What was cheap, however, was the labor of a predominately African American workforce who processed the fish daily and who were essential to the farm-raised catfish industry. Southern? The transformation of the catfish image into an acceptable and celebrated food was part of a broader trend in shaping an image of a hospitable, colorblind Sunbelt society. The new catfish image, one that was no longer explicitly attached to racial and class connotations, proved important to the acceptability of the fish. The catfish became more visible and southern as white cookbook authors began to reclaim the catfish as an authentically southern dish. Yet when it came to the sensorial and material nature of the farmed cat, some consumers didn't care where it came from. As long as the fish was near tasteless, cheap enough, and southern, which meant rolling fish in cornmeal and frying it up, some consumers didn't care if the catfish fillet was from Vietnam or the heart of the Mississippi Delta. So yes, in many ways the farm-raised catfish was, and is, tasteless,

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cheap, and southern, but as this dissertation has argued, it was the process of making and remaking the fish that makes the question worth asking.

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Five days before I rang in the 2016 New Year, I stood outside of Middendorf's waiting to be seated. The restaurant was packed. It had been a warm Christmas, and the day after the heat still hadn't let up. Like many of Middendorf's costumers I was there to fill my gut with their special thin fried catfish.

After getting seated, I noticed that I was one of the only few of dots of color among a huge crowd of hungry white bodies. I could not see inside the kitchen, although I knew who was working hard and sweating bullets preparing our meals. Despite this, I felt ready to eat my fill of the African American kitchen workers' "muscle memory." Ending 2015 with thin fried catfish at Middendorf's felt right. I came back to the Deep South for winter break after spending the semester in South Dakota, and I felt a need to fill my soul with fried bits of the South. After ordering, I sipped my Dixie Beer, New Orleans' finest, and waited for my plate of thin-fried fish atop a mound of French fries. After the plate arrived, I bit into the succulent hot crisps, burning my mouth out of impatience. Some parts of the fried cornmeal shell felt empty, in most places the flesh was so thin it nearly was. Although I could feel the catfish flesh under my teeth, I could only taste cornmeal, oil, lemon juice, tarter sauce, and hot sauce. But that was the way it was supposed to be.

Sitting around a table with friends and family—communally filling our stomachs with fried farmed catfish—the memories of those smells, tastes, and the feelings of warm fried fish is seductive. As I ate, drank, and found myself merry in the Deep South I, too,

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fell for the allure of place, space, and the farm-raised fish. I left Middendorf's stuffed with catfish and good memories. I haven't had catfish since.

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