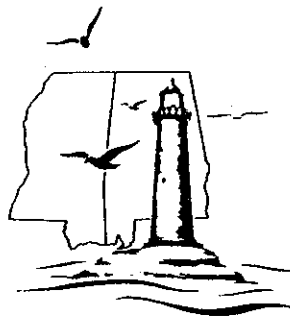


WATER LOG

*A Legal Reporter of the
Mississippi-Alabama Sea Grant Consortium*



ARTICLES

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Redfish Management in the Gulf: A Regulatory Challenge

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And more . . .

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WATER LOG

The *Water Log* is a quarterly publication reporting on legal issues affecting the Mississippi-Alabama coastal area. Its purpose is to increase public awareness and understanding of coastal problems and issues.

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WHY IS SEAFOOD QUALITY LESS REGULATED THAN MEAT OR POULTRY?

W. Steven Otwell

Introduction

No existing state or federal program requires continuous inspection of seafood products, unlike the comprehensive federal program that is intended to regulate the quality of meat and poultry products. This is of course due in part to inadequate funding for enforcement of existing laws, industry resistance to further regulation, and the historic inability of the federal government and industry to agree on basic standards. In addition, some have suggested that the seafood industry has been accorded preferential treatment.

The primary reason, however, for less restrictive seafood quality regulation lies in several unique attributes of the seafood industry. Seafood differs from land-grown protein in that (1) there is little or no control on supply; (2) there is unusual diversity in the harvest; in the product forms; and in the industry itself; (3) seafoods are more perishable; (4) quality evaluations are more subjective; and (5) the recreational origin of some seafoods complicates regulatory efforts. This article will summarize those features and show why collectively they make close regulation difficult. It will conclude with some recommendations to improve seafood quality control.

No Control On Supply

Unlike all other major food supplies, the production of seafoods cannot be directly controlled, enhanced, nor accurately predicted. Although failure or destruction of a field crop may sometimes be unavoidable, that event can be seen and perhaps compensated for in more ways than natural fluctuations in marine stocks. Except for aquaculture ventures which are the marine equivalent of land-based agriculture, fishermen and seafood processors are for the most part dependent on a "hunted" product. More so than land-based agriculture, their venture is a gamble.

Larger firms find security in volume. But even the nation's largest shrimp processors must aggressively compete for a limited shrimp supply, while most domestic stocks are fished at or near maximum sustainable yield. Total collapse of an entire fishery is unfortunately not uncommon. Production may be influenced by weather, seasons, and unique biological attributes of each species. Natural fluctuations that can alter an entire fishery include migrations, year class strength, predation, disease, shift in currents, and changing food supply. Man's contributions, such as habitat degradation and overfishing, (both recreational and commercial) may hasten the decline of a fishery. No domestic food stock currently under a mandatory inspection program contends with uncontrollable variables in supply on this scale.

Product Diversity

Over 30,000 species of fish and shellfish exist. Approximately 10 percent or 3,000 of these have significant commercial value. In the United States, the

National Marine Fisheries Service records annual production on approximately 100 commercial species, devising categories so that certain species may be more conveniently grouped together. In most instances, each species is harvested and processed in a unique fashion. To cite an example in my own state, the crab fishery in Florida includes three species: golden crab, blue crab, and stone crab. Each is harvested from different depths, and for each species fishermen use special gear that requires different handling methods and differing times for vessel preparation. Each crab species is cooked, packaged, and stored in a different manner, and each kind of crab product has a different spoilage rate and shelflife. Thus, in Florida regulatory agencies must be mindful of three different situations for crabmeat marketing. In contrast, Florida's slaughtering and processing of beef, pork or poultry is virtually identical with the rest of the nation's.

Further complications arise when seafood size, composition, and location are taken into account. To cite a few examples: large, individually caught yellowfin tuna require different handling methods than do smaller school-caught mullet; lean grouper are less likely to develop oxidative rancidity than fatty mackerels; and spoilage characteristics of cold water cod differ from warm water snappers. To assure quality and safety in all of these products, a processor must be mindful of the differing features of each.

Industry Diversity

Segments of the seafood industry, from vessel to processing line, differ according to species, production volume, and location. Estimates place the number of processing plants at around 1700, although only 50 of these plants account for 60 percent of the annual value of processed seafood. Plants that concentrate on a single species are common for both large firms (e.g., those that process shrimp, salmon, scallops) and smaller single family operations (e.g., oysters and blue crab). In some instances, different sized firms will compete for the same market position, using the same final product. Because of the quality control features demanded for each species, economies of scale may not benefit large plants that process many different species. For these reasons, and others that follow, a comprehensive seafood regulatory program must be more diversified than mandatory inspection programs for other commodities.

Diverse Product Forms

For each aforementioned species and processing firm, there can be a variety of final product forms. Seafood products may be fresh, frozen, pasteurized, cooked, or sterilized, and they may be marketed whole, as fillets or parts, breaded, stuffed, minced, salted, pickled, or smoked. The recent emergence of fabricated (surimi-based) seafood adds an additional layer of complexity. Likewise, packaging may employ various types of boxing, bagging, vacuum packs, cans, or pouches. For effective regulation, each form would require exacting specificity about product quality and safety. Greater specificity of regulation would, of course, increase its cost.

Seafoods Are Highly Perishable

More so than common meats, seafood is vulnerable to bacterial and autolytic degradation. The meat of marine species contains a higher proportion of small chemical precursors (such as non-protein nitrogen constituents) which impart the osmotic balance essential for thriving in a salt water environment. Unfortunately, these precursors also promote growth of spoilage-causing and pathogenic bacteria. In a similar fashion, autolytic enzyme and other detrimental chemical reactions are enhanced by natural constituents of seafoods. For these reasons, fresh and frozen seafoods are far more vulnerable to spoilage than are beef, pork, and poultry.

A period of 14 or 15 days is the average shelflife for most seafoods stored below 35° F. During this time, grade "A" seafood is available from days 1 through 8, after which the item is demoted to grade "B." Both grades are acceptable and represent good quality seafood. For certain species the period of retention on the vessel may exceed seven days. In that case processing begins with B grade seafood. Even in situations where "day 1" fish can be landed, prolonged storage or distribution may render the product grade B. Special washings, additives, or modified atmospheric packaging may extend the shelflife, but often only prolong the grade B condition.

The traditional view among consumers is that "nothing is better than fresh." This platitude is not always correct. In certain situations properly frozen and thawed grade A seafood may offer better quality than fresh, prolonged grade B seafood. This observation is offered with caution, but it is true that improper freezing methods and storage at or above 0° F (a common legal limit) may adversely influence quality. Efforts by conscientious processors who store seafood below -10° F may be compromised when retailers store the product in freezers with defrost cycles that allow partial and cyclic thawing.

Quality Evaluations Are Subjective

Despite years of refinements in microbial and chemical tests, sensory evaluations are still the most reliable and universally applied method to judge the quality of seafood. This is because "objective" indices of quality, such as a specific microbial count, are often inconclusive. For this reason, microbial tests on seafoods are more often used to indicate the presence of pathogens. Similarly, chemical tests may accurately measure degradation of original constituents, accumulation of spoilage products, or other chemical activity. Again, however, thresholds are highly variable. Chemical tests can be useful measures of spoilage for some species, but in most situations they only lend authority to a sensory judgment that is more conclusive. For these reasons, chemical tests are better suited to detecting constituents, such as for mercury, histamine, or PCBs, that may be harmful or exceed an established safety level.

Thus, objective measurements of seafood quality are limited in their usefulness. Seafood regulatory programs must rely on subjective sensory evaluations that require breadth of experience rather than routine training. This creates a further obstacle to better regulation, for standards based upon sensory evaluations are harder to defend in courts.

Seafood of Recreational Origin

Among the chief hazards of seafood consumption are intoxicants, such as ciguatoxin and scombrototoxin, and related disorders associated with the consumption of molluscs. These forms of contamination may be found in either commercially-caught or recreationally-caught seafood. The popular trend to "harvest your own" subjects a recreational user to molluscs that may be contaminated by microbes, "red tides," and chemical pollutants, despite the most intensive regulatory program. Raw consumption of molluscs is the chief culprit. Its prevalence makes it unique in the United States among sources of protein, although in some areas of the country raw fish slices in the form of sashimi are increasing in popularity.

Recreational consumption of shellfish defies regulation. If there were a recreational season on domestic pork or poultry, how would authorities control its consumption? And what if pork were eaten salted or raw, as it is in some northern European countries?

Conclusion

The following conclusions and recommendations emerge from the special nature of the seafood industry discussed above.

1. The seafood industry is unsuitable for close regulation by a mandatory continuous inspection program similar to that currently used for red meat or poultry.
2. The seafood industry, however, should not escape regulation entirely. Processing plants should be subject to mandatory initial and periodic unannounced inspections. Frequency of inspection should be based on:
 - a. the magnitude of the hazard to health or safety;
 - b. history of product quality problems—particularly economic fraud such as intentional mislabeling or adulteration;
 - c. history of compliance in specific segments of the industry; and
 - d. frequency of past violations.
3. Imported seafoods should be inspected more closely and more frequently. Regulatory agencies should encourage domestic processing by enacting tighter controls on foreign products. Products entirely of foreign origin should be labeled as such.
4. The federal inspection program should be the responsibility of one primary agency. This agency should assist states in establishing complimentary and uniform programs. Likewise, responsibility for state programs should be contracted into a single agency. Seafoods warrant special consideration, but not regulatory authority separate from other foods.
5. All fishing vessels should be subject to unannounced seafood quality and safety inspections by their state regulatory authorities. Frequency of inspection should be responsive to suspicion or complaints. Vessels handling certain products or conducting on-board processing should be subject to annual inspection and recertification.

6. Efforts should continue to encourage a voluntary continuous inspection program for processors. This program should be federally-supported with state assistance, and technical assistance should be provided through the primary regulatory authority. Marketing advantages associated with continuous inspection would in part justify the additional costs.
7. Every level of seafood handling—from vessel through processing, distribution, and retail sale—should be overseen by an employee with certification or training in seafood product safety and quality control. Educational support can be provided by drawing on expertise from either federal and state regulatory authorities or from existing academic programs.
8. Trade associations should voluntarily devise and promote internal product quality codes. These standards cannot be less stringent than existing regulatory guidelines. They should be devised with care to avoid anti-trust and consumer protection suits. The intent of voluntary codes would be to encourage industry compliance and to educate consumers.
9. Trade associations should prepare educational materials that promote safety and quality standards appropriate to the diverse types and forms of seafood. Academic extension programs should support these efforts.
10. Further research and development should be undertaken to promote better regulation of seafood product quality and safety.

Dr. Steven Otwell is Extension Seafood Specialist at the University of Florida in Gainesville. This article is a revision of a talk originally presented at the Fourth Annual National Fishery Law Symposium in Seattle on October 12, 1985, with support from Sea Grant. The views expressed in this article are the author's, and do not necessarily reflect those of the editors or their Sea Grant sponsors.

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REDFISH MANAGEMENT IN THE GULF: A REGULATORY CHALLENGE

Introduction

Redfish, also known as red drum or channel bass, is a species whose popularity as table fare has recently soared. Its popularity has been attributed to New Orleans chef Paul Prudhomme's innovation, blackened redfish. This seared gourmet delight has subjected the once lowly redfish, popular only among coastal state consumers, to unprecedented demand and resultant dockside prices of \$1.30 per pound. *National Fisherman*, August, 1986 at 15. While the 1980 redfish harvest from the Gulf of Mexico was less than one million pounds, by 1985 commercial fishermen landed 6.3 million pounds of redfish, 3.5 million pounds of which came from the federal Fishery Conservation Zone (FCZ). The FCZ redfish harvest increased 1600 percent from 1983 through 1985, and official figures for commercial landings during the first five months of 1986 exceeded those for all of 1985. In addition, it is predicted that the recreational fishery will catch seven million pounds this year.

Perhaps of even greater concern to fishery biologists are the statistics showing that 87 percent of this catch came from the FCZ. The fish from these offshore waters are the adult breeding stock which periodically move inshore to spawn in estuarine waters. Fishery biologists believe that substantial harm may befall the resource if unrestricted harvest of the long-lived, slow maturing, brood stock continues. 51 Fed. Reg. 23552 (1986).

Response to Crisis

With such unprecedented expansion of a commercial fishery it is not surprising that the federal government has taken unusual actions to prevent overfishing. The Magnuson Fishery Conservation and Management Act of 1976 set up a system of regional councils with authority to issue fishing regulations within their respective areas. The Gulf of Mexico Fishery Management Council (Gulf Council) would ordinarily have responded to the dramatic increase in redfish demand with research and regulations to conserve the fishery. But lack of sufficient lead time for the Council to develop a comprehensive management plan, coupled with concern expressed by Louisiana Congressman John Breaux, brought about quick response by the Secretary of Commerce instead.

On April, 28, 1986 a bill calling for a 90-day moratorium on redfish harvest came out of Breaux's House Subcommittee on Fisheries and Wildlife Conservation and the Environment. Testimony of one Grand Bay, Alabama purse seiner before Congressman Breaux's House Subcommittee hearing in New Orleans on June 2, 1986 emphasized the rationale for federal concern over the redfish situation. Captain Jim Reahard, in pleading for federal management, stated that he and his son had already landed 3.4 million pounds of redfish in 1986. More shocking, however, was his further testimony

that lack of market was all that prevented his two boats from catching 20 to 30 million pounds. *National Fisherman*, August, 1986 at 15. Purse seiners, aided by fish spotting aircraft, are capable of taking in 150,000 pounds of redfish per set. 51 Fed. Reg. 23552 (1986).

In response to testimony like the above, a moratorium was issued in order to halt fishing activities while the Secretary of Commerce developed an interim management plan. Concern over the pending loss of a valuable Gulf Coast fishery prompted the Commerce Department to quickly release regulations shaped by the Breaux initiative. The regulations issued by the National Oceanic and Atmospheric Administration and the National Marine Fisheries Service on June 30, 1986 announced that the Gulf of Mexico redfish fishery would be closed for the remainder of a 90-day period beginning June 25, 1986 after the taking of an additional 1,000,000 pounds of fish. This quota was reached on July 24, 1986, and the fishery closed. With the announcement of a 90-day extension on the ban, no redfish can now be taken from the Gulf either commercially or recreationally until December 23, 1986. No further emergency closure is permitted by the Magnuson Act. The Gulf Council is currently working toward development of a final management plan scheduled for completion in 1988.

Commercial Fishing Regulated By the States

It would be reasonable to wonder why a fisherman with such a lucrative business would appeal to the federal government for regulation of his fishery. The likely answer is that federal regulation is preferred to state control, which tends to favor sport over commercial taking of redfish. All Gulf states have enacted laws prohibiting commercial landing of redfish taken from federal as well as state waters. Alabama and Louisiana were the last to follow suit. Alabama's new law limits all landings to 15 fish per day, whether the fish come from state waters or the FCZ. It seems that the states are concerned that purse seining of redfish will cause irreparable harm to the inshore recreational fishery upon which they place a high value. Indeed until 1985, the recreational harvest of redfish exceeded annual commercial landings, but the quantity of recreational harvest from the FCZ has averaged only about four percent of total catch during recent years. 51 Fed. Reg. 23552 (1986).

In promulgating the emergency regulations the Secretary of Commerce included a section entitled "Relation to State Laws." The section states: "It is the intent of the Secretary to supplement the States' efforts to conserve red drum. Therefore, the emergency rule does not supersede any State landing laws which apply to red drum." 51 Fed. Reg. 23553 (1986). Thus the rules contain an express statement that federal law does not preempt state law, as courts might find in the absence of such language.

This was not what commercial fishermen wanted to see in federal regulations. Some groups decided to do more than simply press federal lawmakers for regulations preempting those of the states. On July 14, 1986 the Southeastern Fisheries Association and National Fisheries Institute filed suit against the Commerce Department, claiming that the non-preemption

clause in the emergency regulations constitutes an unconstitutional abrogation of federal authority (under the Magnuson Act) to the states. *National Fisherman*, September, 1986 at 24.

Battle lines are being drawn on the preemption issue. The Secretary of Commerce's draft redfish management plan proposes federal preemption of state landing laws and, of course, has the support of commercial fishermen. On the other hand, the states appear to have the support of the Gulf Council, which is preparing to comment on the Secretary's draft management scheme and which will also provide the ultimate regulations.

Constitutionality of State Landing Laws

In order to effectively regulate the harvest of marine fishes coastal states have enacted landing laws. Restrictions imposed under these laws make no distinction as to where the fish were caught. Enactment of a landing law frees the state from having to prove the place of the catch in order to regulate it. The United States Supreme Court long ago upheld the constitutionality of state landing laws. *Bayside Fish Flour Co. v. Gentry*, 297 U.S. 422 (1936).

The Magnuson Act, however, states that "a State may not directly or indirectly regulate any fishing vessel outside its boundaries, unless the vessel is registered under the law of that State." 16 U.S.C. §1856(a) (3). The Act does not define "registered." Does this mean that a Mississippi-registered vessel could land redfish caught in the FCZ in Alabama, and vice-versa, without application of state landing laws? The leading case on this issue is *State v. F/V Baranof*, which involved the confiscation of a fishing vessel from a Washington home port in FCZ waters off Alaska. *State v. F/V Baranof*, 677 P. 2d 1245 (Alaska 1984). The vessel owner was charged with violation of Alaska's king crab quotas. The *Baranof* court held the registration requirement to include any vessel *authorized* by the state to engage in commercial fishing within either state territorial or FCZ waters. From this case it is clear that states can control landings of all fish within their borders except when a federal management plan expresses a contrary intent.

Jurisdiction of state courts over the FCZ is generally accomplished via state game and fish code provisions. These codes may require registration of non-resident vessels that fish in and beyond the state's territorial sea. *Alaska v. F/V Baranof*: State Regulation Beyond the Territorial Sea After the Magnuson Act, 13 *B.C. Env'tl. Aff. L. Rev.* 281 at 323 (1986).

The Supremacy Clause of the United States Constitution provides that federal law is the supreme law of the land and preempts state law to the extent the latter conflicts with federal law. Application of the Supremacy Clause does not permit *conflicting* state regulation of fishing in FCZ waters. But where state regulation of FCZ fishing *complements* the Magnuson Act's goal of effective management and conservation no federal preemption problem exists. *Baranof*, 677 P.2d at 1251. The *Baranof* court concluded that the Magnuson Act not only permits but encourages complementary state regulation of domestic catches from FCZ waters.

The explicit reservation of regulatory authority to the states in the Secretary of Commerce's emergency redfish regulations is consistent with the Alaska Supreme Court's *Baranof* decision. In fact, Commerce's express savings of state powers was no doubt influenced by the *Baranof* case, which can be reduced to a statement that "state regulation of an extraterritorial fishery is valid in the absence of federal involvement." *Id.* at 324. Such cooperative regulation of domestic extraterritorial fishing is desirable in order to allow allocation of federal resources to the management of foreign fishing in domestic waters.

Since passage of the Magnuson Act the Supremacy Clause has become the principal constraint on state regulation of non-territorial waters. However, two other constitutional limitations should be considered. The Commerce Clause of the United States Constitution prohibits states from unduly burdening interstate commerce. A court, for example, will find impermissible state regulation where state law requires that all shrimp taken from its waters be processed within the state prior to interstate shipment. *Foster Fountain Packing Co. v. Haydel*, 278 U.S. 1 (1942). So long as a state landing law has a valid conservation purpose and is not designed to favor in-state business enterprises over those of other states, no Commerce Clause conflict is likely.

The third constitutional limitation is the "Privileges and Immunities Clause," which guarantees equal protection to state citizens and non-citizens absent a legitimate state purpose to create discriminatory categories. An example of impermissible discrimination under this provision would occur if a state sought to charge out-of-state fishermen one hundred times the fee charged to license in-state fishermen. *Toomer v. Witsell*, 334 U.S. 385 (1947). Impermissible discrimination does not exist with landing laws that treat in-state and out-of-state fishermen the same.

Unless a court reverses the *Baranof* interpretation of the Magnuson Act or unless express federal preemption of state regulation of non-territorial fishing activity occurs it would appear there are no strong constitutional objections to state redfish landing laws.

Conclusion

At a time when the Magnuson Act is under administrative and legislative scrutiny for its effectiveness as a fishery management scheme, resolution of problems associated with the explosive growth of the redfish fishery take on even greater importance. Experiences gained in regulating redfish harvests in the Gulf should provide reviewers with an excellent case study of the strengths and weaknesses of the Magnuson Act.

Robert O'Dell

CINQUE BAMBINI PARTNERSHIP v. MISSISSIPPI
491 So. 2d 508 (Miss. 1986)

In its latest public trust decision, the Mississippi Supreme Court reaffirmed the State's title to all lands subject to the ebb and flow of the tide up to the mean high water level under the "ebb and flow" rule. Although legally classified as a suit to confirm title to property, the case arose from a dispute over rights to oil and gas on approximately 600 acres of marshland in Hancock County. The land in question is part of a larger tract that was settled in the late 18th century and since used by a succession of landowners. For approximately 150 years the titleholders of record had paid taxes on the land in question. No one questioned private ownership of the property until 1977 when the State granted mineral leases throughout the area. The leases specified that the State owned the leased acreage, including all submerged land subject to the ebb and flow of the tide up to mean high water mark, by virtue of its classification as public trust land. At issue before the court was the extent of ownership of the property between the complainant (under a deed traced to a pre-statehood Spanish land grant) and the State of Mississippi (under the authority of the public trust doctrine).

The public trust doctrine in Mississippi evolved from English common law, which provided that lands lying between high and low tide belonged to the King, who held them as trustee in his sovereign capacity for all the people. The trust prevented the Crown from granting tidelands to private persons for private purposes. The State of Mississippi, as sovereign, has assumed the role of trustee of its tidelands, subject only to the paramount right of the federal government to control commerce and navigation.

A recurring issue in public trust cases has been the inland geographic reach of trust boundaries. In this case, private landowners argued that the public trust extends only to tidelands that are "navigable-in-fact." Consistent with prior holdings, the court ruled that "actual" navigability is not a legal restriction on the boundaries of public trust tidelands. The court began its analysis with a discussion of the equal footing doctrine, a legal principle permitting states which entered the Union after its initial creation to come in on an "equal footing" with the original states. Because the original states had reserved their tidelands and navigable waters and held them in trust for the public, Mississippi became owner of its tidelands upon statehood. Prior to statehood, the federal government owned these lands in a similar trust capacity.

Although earlier decisions make it clear that non-navigable tidal waters are included in the trust, this court thought it necessary to reanalyze the issue in light of federal law. This approach required the court to determine whether the extension of the public trust doctrine to inland navigable waters by the United States Supreme Court in *The Genessee Chief* in 1851 had resulted in a restriction of the "ebb and flow" test for public trust jurisdiction in tidal

lands. Drawing an analogy to navigable freshwaters, the Mississippi court stated that the trust applies to both the navigable and non-navigable portions of a freshwater waterway up to the highwater mark. It then equated the "mean high tide" line with the "highwater" mark of a river. Because the tidelands granted to Mississippi under the "equal footing" doctrine are those fronting the Gulf of Mexico — unquestionably a navigable body of water — the court reasoned that the trust therefore extends from the state's border on the Gulf to the mean high tide line.

The court found further support for its conclusion in the fact that "tide" terminology has continued in use since *The Genessee Chief*, thus indicating that the "navigable waters" test is an extension rather than replacement of the "ebb and flow" test. After a brief review of past Mississippi public trust jurisprudence, the court found the decision consistent with its former holdings.

The second issue the court confronted was whether the original Spanish grant was given prior to United States acquisition of the territory, thus freeing the property from the trust. An historical review indicated that the grant occurred in 1813, a year after the area was formally annexed to the Mississippi Territory. Therefore, title to the tidelands never vested in the private owner.

The third issue concerned the extent to which geographic boundaries of the trust are "ambulatory" or mobile as a result of artificial alterations of the wetlands. During construction of Interstate 10, the State dredged uplands for fill, thus forming part of the tidelands in question. In legal terminology a sudden and visible change in a water boundary is known as "avulsion." The court held that tidelands created artificially by avulsion, as in this case, belong to the title holder of record, and therefore are not added to the state's trust properties.

The fourth issue the complainants argued was that the state should be estopped from asserting jurisdiction because historically it had treated the property as private (as shown by collection of property taxes). The court held, consistent with the Mississippi Constitution and case law, that the state cannot lose title to public land by adverse possession, limitations, or laches.

The court's decision reaffirms, although with a strained rationale, its longstanding view that public trust lands include all lands subject to the ebb and flow of the tide. Exceptions to the rule occur when the character of the land changes due to natural or man-made causes. This court decided, for the first time, that tidelands created by avulsion inure to the adjacent upland owner. It is as yet unclear how this particular holding will affect the jurisdiction of the state regarding issuance of permits in wetlands and in mineral leases. At the least, it will require a physical survey of disputed property on a case-by-case basis to determine which wetlands are public and which are private.

Casey Jarman

ORGANIZED FISHERMEN OF FLORIDA v. HODEL 775 F. 2d 1588 (11th Cir. 1985)

Case History

In 1934 Congress authorized the creation of Everglades National Park in south Florida from land donated by the Florida legislature. Before accepting the property, the National Park Service (NPS) informed Florida that commercial fishing would be subject to reasonable regulation to protect marine resources, but that prohibiting commercial fishing in the Park was unlikely. In 1944, the Florida legislature conveyed the land without reserving commercial fishing rights in the deed. Over a period of years, in response to a decline in the sport fish population, NPS regulated commercial fishing in the Park. In 1978, as a result of a continued fall in population levels, NPS undertook a comprehensive study to determine its cause. NPS simultaneously held public hearings to solicit opinions of interested parties. Many groups advocated an immediate ban on commercial fishing and stricter limits on recreational catch.

In September, 1979 NPS formally proposed to regulate fishing in the Park by establishing sanctuaries for endangered species, imposing bag limits of ten fish per species and not more than a total of twenty fish of all species, and prohibiting all commercial fishing in the Park. These rules became final on December 31, 1985.

Shortly thereafter, Organized Fishermen of Florida (OFF) filed suit to challenge the validity of the rules. The court denied OFF's motion for a preliminary injunction to prevent enforcement of the rules.

Issues

On appeal, OFF presented three theories that the court ultimately rejected. First, they asserted a vested property right in commercial fishing in the Park as third party beneficiaries of an alleged oral contract between the United States and Florida. In support of this argument, OFF produced a series of communications between NPS and the Florida legislature which indicated that commercial fishing would not be banned in the Park. The court found, however, that NPS never purported to give up its right to exercise its conservation function. Furthermore, the court held that if Florida intended to reserve commercial fishing rights, it should have done so in the original deed.

OFF also rested its claim in part on Florida's "Right to Fish Law" which preserves "in the people the absolute right to fish except as otherwise provided in these statutes." 19 Fla. Stat. Ann. §370.10 (Supp. 1985). OFF asserted that this provision was incorporated by implication into the conveyance of the Park land, thereby guaranteeing a commercial fishing right. The court concluded that the statute did not preclude regulation of fishing and that prohibition is a reasonable and sometimes necessary form of regulation. Thus, the United States, as Florida's successor in ownership of

the Park, was empowered to regulate — even to the point of outright prohibition — in order to preserve the fish population.

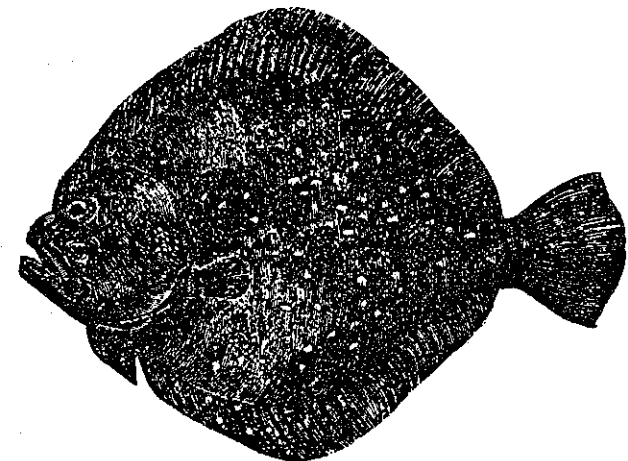
In the alternative, OFF contended that even absent a contract between Florida and the United States, representations made by NPS should estop implementation of the rules. The court found that OFF could not reasonably have believed that commercial fishing would never be in conflict with NPS's exercise of its conservation power. Thus, even assuming that OFF relied on NPS's representations, that reliance was unreasonable and failed to establish estoppel.

Finally, OFF asserted that NPS rules were adopted in violation of the Administrative Procedure Act because they irrationally discriminate against commercial fishermen and bear no reasonable relationship to the fact on record. The court rejected this argument, choosing instead to defer to the judgment of NPS in weighing the competing uses.

Conclusion

The decision of the court implies that Florida could have reserved commercial fishing rights in the deed, similar to a reservation of mineral rights, that would have left Florida some powers of fishery conservation within the Park. It is a reasonable speculation, however, that NPS would not have accepted the land on such terms. Even if Florida had retained control, there is no guarantee that commercial fishing interests would have fared any better in the balancing of competing uses for the limited natural resources found in Everglades National Park.

Alan Evans



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The Mississippi Sea Grant Advisory Service is the primary public service and extension branch of the Mississippi-Alabama Sea Grant Consortium. In general, the advisory service components of the thirty-one Sea Grant programs in twenty-nine coastal states and Puerto Rico operate in much the same manner, although there are individual differences dictated by geographic location and clientele groups. This article is aimed at acquainting you with the Mississippi Sea Grant Advisory Service to help you become familiar with the services we are able to provide, as well as to stimulate public contribution to our program.

The Mississippi Sea Grant Advisory Service is the extension arm of the Mississippi/Alabama Sea Grant Consortium, which comprises nine institutions of higher learning throughout the two states. The advisory service in Mississippi operates within Mississippi State University's Cooperative Extension Service. This arrangement provides Mississippi Advisory Services' two full-time specialists access to the extensive resources for research and information transfer available through the Extension Service. In addition, they have available resources generated within the Consortium and other members of the National Sea Grant Advisory Service Network.

The seven major program areas covered by Mississippi Sea Grant Advisory Service are (1) pollution, (2) recreation, (3) coastal engineering, (4) marine education, (5) business development, (6) fisheries, and (7) seafood technology (including aquaculture), with current emphasis on the last two. The broad goal of the Mississippi Sea Grant Advisory Service is to promote the optimum use of Mississippi's marine and coastal resources. In order to accomplish this goal, we use informal educational methods ranging from workshops and demonstrations to television appearances and publications. We maintain close liaison with federal, state, and local government agencies in order to effectively take advantage of their resources. The Mississippi Sea Grant Advisory Service also serves as the public relations arm of the Consortium and is able to transmit results of Sea Grant research to those who request information, as well as to make researchers aware of problems that merit investigation.

The following description of a typical Advisory Service project illustrates our work. During late 1984, members of Mississippi's Vietnamese fishing community contacted the Sea Grant Advisory Service regarding problems in the regulation of a traditional Southeast Asian fishing technique. This method of shrimp fishing involves use of the pusher-head trawl, known colloquially as "chopsticks." Although this method of fishing is ancient, the appearance of chopsticks in the Gulf left fishery managers at a loss as how to regulate its use. Louisiana resource agencies regarded chopsticks as a form of beam trawl and outlawed their use. Their Mississippi counterparts

chose to regulate them using the same criteria developed for otter trawls. This, however, led to operational problems and gear loss. The first step taken by the Mississippi Sea Grant Advisory Service was production of a videotape made on board one of the vessels to demonstrate how the gear was operated. Next, a trip was arranged with personnel from the state Bureau of Marine Resources in order to reach a compromise about net wing height limitations that would satisfy both the Bureau and the fishermen. Otter trawl fishermen had complained that chopsticks gear disturbed the bottom, making their gear inoperable in the areas where chopsticks were used.

To address this problem, Advisory Service personnel arranged for divers from the Pascagoula Laboratory of the National Marine Fisheries Service to film the gear underwater during actual fishing conditions. None of the reported bottom damage was observed. The net results of this project were 1) narrative and visual explanations of chopstick gear and its use so that other fishermen and fishery managers could be better informed; 2) new Mississippi regulations for chopstick gear configurations; and 3) a publication "*Chopsticks: Investigations to the Pusher-Head Trawl*."

In our day-to-day routine we address almost every facet of marine and coastal life. Workshops are conducted for recreational fishermen and shrimpers. Commercial fishermen participate in Advisory Service sponsored symposia and are frequently visited in person. Area homemakers are given seafood cooking demonstrations and taught how to buy quality seafood products. Area youth are initiated into the intricacies of marine and coastal ecosystems through field trips and classroom presentations. County and municipal planners are provided with economic impact data in order to make more informed decisions regarding coastal land use. Over 6000 readers enjoy the free monthly newsletter "Gulf Coast Fisherman." In fact, in 1985 alone over 25,000 people have been directly affected by the Advisory Service. This represents eight percent of the population of Mississippi's three coastal counties. An extensive library of coastal and marine related publications is maintained at the Biloxi, Mississippi office.

If you need information about marine and coastal environments and issues, if you have a problem or concern you would like to see addressed, or if you just want more information about the program and services provided write or call:

Sea Grant Advisory
4646 West Beach Blvd. Suite 1-E
Biloxi, MS 39531
(601) 388-4710

(This is the ninth in a series of articles appearing in *Water Log* describing federal, regional, state, and local entities concerned with the management of coastal resources in Alabama and Mississippi.)

RECENT LEGISLATION—MISSISSIPPI

The 1986 session of the Mississippi legislature passed several bills and amended laws already in existence that are important to coastal residents. The following is a brief summary of these bills.

1) Senate Bill No. 2290, which took effect July 1, 1986, places restrictions on the catch of redfish and various other named species. Under the bill, no boat with a purse seine on board is permitted to possess any quantity of redfish. In addition, the new law prohibits from September 15 through November 15 of each year the use of nets to harvest redfish. The penalty for violation of either provision is a mandatory fine of \$100 for each fish possessed and confiscation of the nets used. The Act also makes unlawful the use of aircraft to assist in the harvesting of redfish. Upon conviction, violators could have their aircraft confiscated as well as be fined. Repeated violations may result in additional fines, a jail term, and revocation of one's fishing license under §49-15-63 of the Mississippi Code.

The bill increases protection of certain other named species (e.g., king mackerel) by setting the maximum catchable quantity at ten percent of the total catch. The law prohibits the use of gill nets, purse seines, fish traps, and similar gear to harvest saltwater fish within one hundred feet of the mouth of any body of water which empties into the Mississippi Sound. Also forbidden is the use of a purse seine within one mile of the shoreline of Harrison or Hancock counties.

The new law requires the Bureau of Marine Resources to recommend to the legislature yearly harvest limits on major recreational or commercial marine species, such as redfish, shrimp, and blue crab. Finally, the Act expressly states that it in no way circumvents or limits the power of the Mississippi Commission on Wildlife Conservation to promulgate regulations not in conflict with this law.

2) Effective July 1, 1986, Senate Bill No. 2536 limits the liability of landowners who allow others to go on their land for purposes such as hunting or fishing. Under this Act, the landowner owes no duty of care to keep the land or premises safe, and is not required to warn the user of possible dangers that may exist. However, the law lists three situations where the landowner might still be liable when he allows someone to use his land: 1) if the landowner knows of a danger and willfully or maliciously refuses to warn the person; 2) if the person going on the land paid the landowner for the privilege; 3) if the permittee causes injury to third persons to whom the landowner already owed a duty of care to keep the land or premises safe.

3) Effective March 27, 1986, House Bill No. 146 created the "Mississippi Conservation Easement Act" which authorizes the granting of "conservation easements." It was passed to clarify the status and effect of such easements on real property. This law defines a conservation easement as the nonpossessory interest of a holder in real property that imposes limitations

or affirmative obligations on the property owner. The Act lists several possible purposes for the creation of conservation easements such as to preserve the historical or cultural aspects of real property.

4) House Bill No. 501 amends §§59-13-9 and 75-17-101 of the Mississippi Code by increasing from six to eleven percent the maximum interest rate that may be paid on port bonds. This Act takes effect July 1, 1987.

5) Senate Bill No. 2670 made several minor changes in the law concerning registration of vessels. The bill changed the system of numbering vessels used by the Department of Wildlife Conservation under §50-21-7 of the Mississippi Code. It also deleted the requirement contained in §59-21-13 that in order for the same certificate of number to be reissued, the application for renewal had to be received within one year of the date of expiration. Thus, the law now provides that the same number will be reissued even after one year has passed.

Also deleted was the requirement found at §59-21-21 that a new certificate of number be issued when a lienholder acquired title and lawful possession by virtue of his lien. Thus, for the purpose of issuing a certificate of number, a lienholder who now acquires title is treated just like any other new owner. Finally, the law deletes the provision found at §59-21-23 that a certificate of number may be cancelled or voided when not renewed within one year following its expiration date. This Act takes effect July 1, 1987.

6) Senate Bill No. 3005 changed certain oyster taxes, license fees for commercial fishermen, seafood dealers, and processors. For example, the annual fee to license a vessel used for dredging oysters was increased from \$30 to \$100. People in oyster-related businesses should consult §49-15-29 to ascertain what effect the fee changes may have on them.

The bill also set the fee for permits to use state wetlands for industrial and commercial activity (§49-27-9) at \$500. It amended §49-27-61 to provide for charges per cubic yard on certain materials removed from coastal wetlands. For example, the charge for removing sand and gravel from coastal wetlands is now 50 cents per cubic yard. This Act took effect July 1, 1986.

7) House Bill No. 786 amends lease terms found at §29-1-107 for coastal and submerged state-owned lands. Most importantly, the bill increased the term that the Secretary of State, with the approval of the Governor, may rent or lease surface or submerged lands from five to thirty years. In addition, the amendment states that the lessee of record may have the option to renew the lease at expiration. It provides further that the lessee may construct improvements that aid in navigation, such as marking of channels. Furthermore, the lessee now must file a copy of the agreement, including the consideration received, with the Secretary of State within 30 days after the execution of a sublease or assignment. This bill took effect on July 1, 1986.

LOUISIANA REDFISH LAWS — 1986

The 1986 Louisiana legislature passed three laws that move the redfish laws of Louisiana more in line with those of the other Gulf states. Act 387 prohibits the use of purse seines in all state waters. Previously, these nets could be used, with a special experimental permit, in state "outside" waters (defined as those waters extending to the limit of the state's jurisdiction measured from a statutorily defined line roughly following the actual shoreline) and in a small area of Breton and Chandeleur Sounds (considered state "inside" waters). Act 611 prohibits the possession of any red drum or spotted sea trout (speckled trout) on board any vessel that also has on board a purse seine. This applies to vessels within and beyond state waters. Because of the federal Magnuson Fishery Conservation and Management Act, however, this law does not affect those persons fishing in federal waters whose vessel is registered in a state other than Louisiana. The menhaden industry is exempted from both Acts.

Act 613 places, for the first time, maximum size limitations on the commercial taking of red drum and extends coverage of the recreational size limit into the federal Fishery Conservation Zone. Previously, recreational fishermen were limited to taking no more than two red drum exceeding 36 inches in length per day. The new law reduces the recreational size limitation to 30 inches, as well as places a nearly identical restriction on the commercial fishery. Because the commercial restriction applies to any "person, firm, or corporation" and does not distinguish between fishermen, wholesalers, retailers, and other commercial possessors, some question exists as to the extent of application. The position of the Louisiana Department of Wildlife and Fisheries is to interpret this provision broadly to include any commercial possessor, including fishermen, wholesalers, and retailers.

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LAGNIAPPE (A Little Something Extra)

The United States House of Representatives failed to pass the fishing vessel insurance and safety bill discussed in the last issue of *Water Log*.

A Florida judge fined a man \$1,000 for killing a sea turtle, sentenced him to 100 hours of community service with a wildlife conservation group, and required him to pay for two replacement turtles.

The Alabama Environmental Management Commission recently announced the membership of the Alabama Environmental Planning Council, a committee created earlier this year by a joint resolution of the Alabama legislature. The Council is responsible for developing a statewide environmental plan that must be completed within 18 months of their first meeting and submitted to the Commission for review. Additionally, the Council is to advise the Commission on planning educational and training programs and in identifying environmental priorities.

A federal district court in Idaho recently ruled that the notice requirement in §112 of CERCLA (Superfund) is a jurisdictional prerequisite to filing suit. As a result, defendants must be notified of natural resource or cost recovery claims 60 days prior to the filing of such a suit. *Idaho v. Howmet Turbine Component Corp*, No. 83-4179.

The Interior Department has begun distribution of approximately \$1.5 billion in OCS revenues to seven coastal states pursuant to §8(g) of the Outer Continental Shelf Lands Act. Alabama is to receive \$66 million and Mississippi \$14 million. Over the next 15 years, Alabama will receive an additional \$1.4 million and Mississippi an additional \$410,000.
