



LEGAL TIDES

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A History of Commercial Fisheries, Regulations and Management

North Carolina Fishery Policy Series Part 1

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North Carolina is home to one of the most diverse arrays of fisheries in the country. The fishing industry — both commercial and recreational — is important to the state and local economies along the coast. From 2009 to 2013, North Carolina's commercial landings ranged in value from \$71 million to \$79 million annually. Landings in North Carolina have varied widely over the past 40 years, due to natural variations in fish stocks, new and differing management strategies, catastrophic weather events, and demographic change in coastal fishing communities. Recently, concerns about food safety have damaged the character and heritage of North Carolina seafood. In addition, coastal communities are experiencing wide-ranging economic, social and cultural changes.

This article, the first of a two-part series, describes a brief history of commercial fisheries in North Carolina, significant federal and state laws and regulations, and current challenges to the commercial fishing industry. The second article will address these challenges, focus on a few key regulatory issues, and provide policy recommendations for improving the quality of North Carolina fisheries and the way of life for the state's commercial fishermen.

A Way of Life

In recent years, the North Carolina coast has seen a reduction in public access and in working waterfront area, including fish houses, landings, marine railways and boat construction facilities.

In their 2007 study, Barbara Garrity-Blake and Barry Nash inventoried the state's fish houses —

locations that conduct the wholesale buying and selling of harvested fish — and interviewed the owners and operators. This work, funded by the N.C. Fishery Resource Grant Program (FRG) and administered by North Carolina Sea Grant from the mid-1990s through 2013, found that the numbers of public piers, marinas and community harbors had declined, resulting in hard hits to the state's fishing industry. They reported that, historically, the state's fishing industry has been comprised of a large, culturally distinct group of families that have been fishing the North Carolina waters for centuries. Fishing for a living is not just a job or a source of income for these families, but is closer to a cultural identity and a way of life. For some native residents and their families, this tradition goes back more than 200 years.

Industry Interdependence

The interdependence of the fishing industry is another unique trait of this community. Fishermen depend on local fish houses for docking, ice and market connections. In turn, the fish houses depend on fishermen to bring in marketable products. All parties involved depend on the local trucking companies for distribution. Additionally, supporting infrastructure plays a major role, providing marine railways, servicing boats, and supplying fishing gear and equipment. Fishing also supports businesses, such as restaurants, grocery stores and insurance companies, which also are rooted in the community. These businesses contribute heavily not only to the community tax base, but also to the general history and heritage of the area. When one of

these system components, such as the fishermen, suffers, the entire interdependent economic system supporting the community is affected.

In their 2012 follow-up study, also supported by the FRG program, Garrity-Blake and Nash concluded that between 2001 and 2011, 47 fish houses were closed or sold. This represented a 36 percent decrease in North Carolina fish houses during that 10-year period. Owners of these fish houses noted that fuel prices, competition, regulations regarding fish harvests, lack of available labor supply and development pressures played a large part in their struggles. Other challenges for the fishing industry included imports and competition with the Gulf of Mexico, resource scarcity, ecological changes in fishing areas, consolidation of the industry, and technology advancements.

Overfishing and Overfished

What is "overfishing"? Does it mean the same thing as "overfished"? From a management perspective, these terms are not interchangeable. A fishery could be overfished, but not currently be experiencing overfishing. The distinction between the two is subtle, which can lead to confusion. Although fishing can add pressure to the population of a species, a fish stock can be overfished for many other reasons, such as disease, natural mortality or environmental conditions.

According to the National Oceanic and Atmospheric Administration (NOAA), a stock subject to overfishing has a harvest rate that is higher than the rate that produces what is known as a maximum sustainable yield, or MSY. It refers



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to the largest long-term average catch that can be taken from a stock under current environmental and fishery conditions that still will allow for a healthy population level.

On the other hand, overfished means the stock has been depleted to such a degree that its capacity to produce MSY is threatened. From a management perspective, a population can be overfished, but be managed under a plan that over time will return the population to a level that can support the MSY.

From a global perspective, chronic overfishing by both the commercial and recreational industries has put many species at risk, according to a 2011 Pew Charitable Trusts report. As an example, the report cited the 2011 prohibition against fishing for red snapper in the South Atlantic. The species count had plummeted to less than 15 percent of a healthy population level. Mature fish were overfished, and younger fish could not reproduce quickly enough to replenish the population. Therefore, restrictions were put in place in order to help the species rebuild to fishable levels.

However, these protections have not always had the intended effect of making fish populations throughout the ocean healthier overall. The Pew report notes that as protections and catch limits are put on certain species, fishermen must then fish more frequently for other species that are not regulated, which puts more pressure on those populations that can be fished. This has led to a system of waiting for a population crisis to occur before taking action, resulting in economic losses for fishermen and depletion of fisheries.

However, for the purposes of this article it is important to consider to what extent overfishing is an issue for North Carolina. As a result of

converging cold- and warm-water currents, North Carolina's nutrient-rich waters are home to a diverse population of fish and other marine species. Most of these species, however, are not overfished, nor is overfishing occurring. According to the N.C. Division of Marine Fisheries' (DMF) 2014 stock status report, only four of more than 40 species are experiencing overfishing: southern flounder, gag grouper, Atlantic menhaden and spotted seatrout. For federal fisheries managed by the NOAA National Marine Fisheries Service (NMFS), NOAA reports in its *Status of Stocks 2013* report that, nationwide, only 9 percent of stocks are on the overfishing list, and 17 percent are on the overfished list.

Federal Management Authority

The federal government is responsible for regulating fishing activities 3 to 200 nautical miles off the coast of the United States. The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act or Act), passed into law in 1976, established a Fishery Conservation Zone that encompasses waters from the United States coastline to 200 nautical miles from shore. The Act also sets forth rules and institutions to manage fishing activity within the Fishery Conservation Zone.

Congress also implemented a management structure for domestic fisheries through eight Regional Fishery Management Councils. Each regional council is responsible for managing the fisheries in a specified area of waters. The size and number of members on each council varies, depending on the area that is managed. For example, in North Carolina, federal waters north of Cape Hatteras are managed by the Mid-Atlantic Fishery Management Council (MAFMC), while the South Atlantic Fishery Management Council (SAFMC) manages federal waters south of Cape Hatteras.

The Magnuson-Stevens Act requires that each council establish two advisory committees. The first is a scientific and statistical committee "to assist in the development, collection, evaluation, and peer review of such statistical, biological, economic, social, and other scientific information as is relevant." The second is a fishing industry advisory committee to "provide information and recommendations on, and assist in the development of, fishery management plans and amendments to such plans."

Therefore, according to Josh Eagle in an article in *Ocean and Coastal Law and Policy*, under the Act, councils have the discretion to select which fisheries require conservation and management.

Until a council makes such a decision, the fishery is not subject to federal regulation. If a council decides that a fishery needs management or conservation, the council must develop a Fishery Management Plan (FMP). FMPs must provide "management measures necessary and appropriate ... to prevent overfishing and rebuild overfished stocks, and to protect, restore and promote the long-term health and stability of the fishery."

Managing fisheries for an optimal yield did not allow the regional councils to plan for long-term population viability. Thus marine conservation organizations urged Congress to address this issue. As a result, the 1996 Sustainable Fisheries Act was passed into law. It amended the Magnuson-Stevens Act to require the regional councils to make conservation of fish stocks their first priority, with a stronger focus on MSY. In 2006, Congress reauthorized the Act and further amended it to require FMPs for a majority of the fisheries. The reauthorization also strengthened the role of science in the fishery management process, included language intended to put an end to overfishing, and added provisions to bolster market-based tools in fishery management.

The 2006 reauthorization of the Act also added three new national standards to address fishing vessel safety, fishing communities and incidentally caught fish, called bycatch. Several existing standards were revised. The Magnuson-Stevens Act now contains 10 national standards for fishery conservation and management.

- *National Standard One* mandates that the councils achieve optimal yield from each fishery in order to prevent overfishing and allow for the rebuilding of overfished stocks.
- *National Standard Two* requires councils to use the "best available scientific information" when managing the stocks.
- *National Standard Three* supports the coordination between the regional councils and NMFS in managing stocks that cross jurisdictions.
- *National Standard Four* encourages allocating fishing privileges fairly among fishermen.
- *National Standard Five* requires that efficiency be only one of many considerations in fishery management.
- *National Standard Six* mandates that the councils recognize potential future environmental and economic impacts when making management decisions.
- *National Standard Seven* requires the councils to minimize administrative costs.
- *National Standard Eight* obligates the

councils to consider the needs of fishing communities and to minimize the economic impacts on those communities when managing fisheries.

- *National Standard Nine* states that councils should minimize bycatch, to the extent practicable.
- *National Standard Ten* requires that councils promote the safety of human life to the extent practicable when managing fisheries.

A regional council must meet all 10 standards in every FMP that it adopts. Additionally, federal FMPs must include basic economic information about the fishery and the targeted fish species (historical landings, types of fishermen involved, number of vessels used by the fishermen, types of gear used, and actual and potential revenues of the fishery), biological and ecological information about the species' geographic range, essential areas for breeding and growing, and steps required to conserve and enhance such habitat. The plan also must include methods that the council will use to collect this data, and the objectives and standards that it will later use to assess whether it has met all of the stated goals.

State Management Authority

The North Carolina General Assembly enacts fisheries statutes and provides the North Carolina Marine Fisheries Commission (MFC) with the authority to adopt rules to implement those statutes. The N.C. Marine Fisheries Commission Rules outline the MFC's responsibilities: "managing, protecting, preserving and enhancing the marine and estuarine resources under its jurisdiction." The MFC also is tasked with conducting "management, enforcement, research, monitoring, statistics and licensing programs to provide information on which to base decisions on rule making."

In 1997, the North Carolina Fisheries Reform Act was signed into law, mandating that the DMF develop management plans for all of the commercially and recreationally significant marine fisheries species in the state that are found in coastal waters, out to 3 nautical miles offshore. After the DMF prepares the FMPs, they are reviewed and adopted by the MFC. The DMF currently develops plans for blue crab, shrimp, oysters, clams, southern flounder, bay scallops, spotted seatrout, red drum, estuarine striped bass, river herring, striped mullet and sea mullet.

The nine-member MFC is responsible for authorizing FMPs for all fisheries within the state. FMPs include mandatory actions to ensure specific levels of fish for future harvests. These

actions are implemented by regulations that limit or control the amounts of certain species of fish, the types of allowable gear, and the times during the year in which these species may be caught. The Fisheries Reform Act also directs that biological, social and economic data are used to adequately develop state FMPs. These data are required in order to develop proper management strategies and varied options regarding specific species, areas and fishing techniques.

Regulations vary and can include limits on the number of participants in a fishery, gear restrictions, trip or landing limits, quotas on the pounds of a species that can be landed, restrictions on the length and/or weight of fish that can be landed, and closed areas or seasons. The U.S. Coast Guard and the North Carolina Marine Patrol enforce these fishery laws and regulations.

Another relevant commission is the Atlantic States Marine Fisheries Commission (ASMFC), which develops interstate management plans for species, such as bluefish and Atlantic croaker, that migrate in and out of North Carolina waters and across boundaries on the Atlantic seaboard.

North Carolina is an active, voting member on the ASMFC, as well as the SAFMC and MAFMC. North Carolina's participation in these organizations is critical to ensure that the state's fishermen and fisheries resources are adequately protected, and that participation and yield are optimized. There are several species for which North Carolina does not conduct stock assessments or develop FMPs. Instead they are managed by the councils or the ASMFC. For these interjurisdictional species, North Carolina adopts the regulations of these other regulatory bodies as their own and DMF compiles them into the Interjurisdictional FMP.

Industry Consolidation

Under the authority of the Magnuson-Stevens Act, NMFS operates a fishery management program called catch shares, which allocates catch allowances to prevent overfishing. While the catch share program is not relevant to North Carolina fisheries, it is discussed here for its educational value. This program is not without controversy.

For example, Rich Bindell from Food and Water Watch reports that many fishermen claim that this system gives preference to large-scale fishing operations over smaller ones. In a 2012 article, Bindell notes that this allocation method,



which involves portioning out the privilege to catch fish, has had hugely negative impacts on independent fishermen and the fishing communities that they support. This system has turned a once-free fishing opportunity, considered a public trust in many states including North Carolina, into a commodity that only the biggest and fastest fishing operations can afford. This has resulted in consolidation of the fishing industry, but also has edged smaller-scale fishermen out of business. He adds that large-scale industrial fishing operations tend to practice fishing methods that wreak havoc on sensitive ocean habitats, ultimately leading to decreased fish populations over time.

Conclusion

The North Carolina commercial fishing industry is currently in decline due to various pressures on the fishery populations, such as overfishing, and food-safety concerns. Despite the present regulatory regime, this decline has started to change the character and heritage of North Carolina coastal communities, resulting in wide-ranging economic, social and cultural changes for residents of these communities.

The second and final part of this series will address these challenges and provide policy recommendations for improving the quality of North Carolina fisheries and the way of life for the state's commercial fishermen.

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