Federal Fishery Management

Kristina Alexander

It's one thing to manage livestock – to a certain degree you know how many there are, where they are, and how to protect them until harvest. But managing fish is another school of practice. The federal Magnuson-Stevens Fishery Conservation and Management Act (known as the MSA, or Magnuson-Stevens Act) is the primary authority for how the federal government manages fish in U.S. waters.[1] The National Oceanic and Atmospheric Administration (NOAA) oversees most MSA activities, although enforcement is shared with the Coast Guard. The Magnuson-Stevens Act's goals are both ecologic and economic, with the idea that the better fish management is ecologically, the higher the economic benefits are over the long term of the fishery.

Implementing the MSA

The MSA has been in place since 1976, and subsequent amendments have refined rather than revised how the law functions. At the heart of the Magnuson-Stevens Act is the development of Fishery Management Plans. A plan is developed by the Regional Fishery Management Councils (Councils or FMC) based on the fish stock in their geographical regions. There are eight Councils. Fish that travel beyond the boundaries of a single region are subject to plans developed by more than one regional council or in some cases by one of the three commissions authorized to manage such stock. Those commissions are: the Atlantic States Marine Fisheries Commission; the Gulf States Marine Fisheries Commission; and the Pacific Marine Fisheries Commission. Finally, not all fish in the sea are managed under the MSA, or maybe at all (think of sea slugs and starfish).

In the Gulf of Mexico, there are two main entities for fish management: the Gulf of Mexico Fishery Management Council and the Gulf States Marine Fisheries Commission. The Gulf States Marine Fisheries Commission (GSMFC) predates the MSA by almost 30 years. Among other responsibilities, it manages menhaden in the Gulf – an example of a fish not managed under the MSA as it is managed under the Interjurisdictional Fisheries Act.

The Gulf of Mexico Fishery Management Council is the primary management body for fishery management plans in the Gulf. It has implemented plans for coral, reef fish (such as red snapper, grouper, greater amberjack, and gray triggerfish), red drum, coastal migratory pelagics (such as king mackerel, Spanish mackerel, and cobia), shrimp, spiny lobster, and stone crab. As shown by that list, a fishery is not the same as a species of fish. Generally, a fishery will address similar species in the same region for which a specific type of gear is used. The Gulf Council also prepared a plan for aquaculture, but a court found that to be outside of its authority under the Magnuson-Stevens Act (see article by Jacob Hamm for more on that). Additionally, a plan may provide that no fishing is allowed. For example, in the Gulf, no red drum or Nassau grouper may be caught in federal waters.

Fishery Management Councils are independent bodies created by Congress. Because they are independent, NOAA cannot force a Council to do something. However, final actions by the Councils must be approved by NOAA.[2] Roughly speaking, it is a relationship where NOAA does not make the plans but has veto authority over them. NOAA also is responsible for issuing regulations to implement plans.

Contents of a Fishery Management Plan

A Fishery Management Plan (FMP) will consider types of fishing gear, catch by species (either by weight or by numbers of fish), location of fishing areas, fishing seasons, the number of vessels with permits for the stock, costs of management, revenues from the fishery, recreational interests, and any "Indian treaty fishing rights."[3] A plan must balance conservation with the economic interests of the fishing community, which includes not just vessels but fishing processors, for example. The statute requires the best scientific information available. This information comes from experts and members of the public.

Ten National Standards within the MSA set the goals for FMPs. As summarized, the National Standards require FMPs to establish Conservation and Management Measures that shall:

1. Prevent overfishing while achieving optimum yield on a continuing basis.
2. Be based upon the best scientific information available.
3. To the extent practicable, manage individual stocks or interrelated stocks of fish as a unit throughout its range.
4. Not discriminate between residents of different states, making allocations (a) fair and equitable to all such fishermen; (b) reasonably calculated to promote conservation; and (c) giving no individual or entity an excessive share.
5. Where practicable, consider efficiency, but shall not have economic allocation as its sole purpose.
6. Consider variations among, and contingencies in, fisheries, fishery resources, and catches.
7. Where practicable, minimize costs and avoid unnecessary duplication.
8. Take into account the importance of fishery resources to fishing communities by using economic and social data when addressing overfishing and rebuilding, in order to minimize adverse economic impacts to these communities to the extent practicable.
9. To the extent practicable, (a) minimize bycatch and (b) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.
10. To the extent practicable, promote the safety of human life at sea.

The plans must address each of these ten standards. Additionally, within a plan, a Council will describe in detail the fishery that will be managed, including a discussion of what is known about the fish and fishing practices. Reaching this level of detail requires input from a Council's committees and panels. Councils have committees and panels of experts to advise on different issues. For example, Councils are advised by the Scientific and Statistical Committee which consists of economists, biologists, sociologists, and natural resource attorneys who all are knowledgeable about the technical aspects of fisheries, and Advisory Panels with specialized knowledge about certain stocks. A Stock Assessment Panel with biologists trained in population dynamics will assess the available biological data and advise the Councils on the status of stocks and level of acceptable biological catch. Surveys of fishers are conducted regularly to estimate stocks and learn about fisheries.

Additionally, no FMP may be adopted without public input. This may occur when a Council hosts a public meeting, takes written and oral statements from attendees, or requests comments from the public (which includes individuals and entities) when a draft plan is published in the *Federal Register*, a publicly-available online publication for federal agencies' work. When a plan is amended or significantly changed, a Council must seek public comment on the changes.

Age and Population of Fish

Knowing the age and lifespan of fish is key information in developing an FMP. Take for example the red snapper. Gulf red snapper reach full maturity in 6-8 years. A 2-year old red snapper produces 350,000 eggs a year, but an older, larger red snapper produces 120 million eggs a year. This information can influence size limits in a plan. An FMP that is trying to rebuild the stock might not succeed by only imposing a minimum size limit on harvests. Some advocate putting both a minimum and a maximum fish size on harvests to allow the large fish to continue producing massive quantities of eggs.

However, setting a minimum size for catches is a common management practice. For example, the minimum size for cobia was changed in 2020 by the Gulf Council as a tool to cut harvests. The minimum size for that fish was increased from 33-inch forklength to 36 inches, which the Council estimated would cut commercial harvests by 10 percent.

Other tools to manage fish are limits on the quantity (by weight or number) that may be harvested, the seasons, or the number of vessels that are permitted to catch the fish. All of these practices are used to manage Gulf red snapper commercial and recreational harvests.

Restrictions in FMPs may change based on new data. The Great Red Snapper Count, funded by the Mississippi-Alabama Sea Grant Consortium, found in 2020 that the red snapper population in the Gulf was greater than believed, in part because the assessment covered more of the Gulf. This could influence the existing reef fish FMP by providing

the Council with justification to support changing catch limits, or the Council could create geographical sectors to set catch limits based in part on geography to balance harvest levels across the entire red snapper fishery.

While it is important to understand the biology of the stock to develop a meaningful FMP, a Council must also know the equipment used, such as the number of vessels and what technology is on those vessels. This information helps a Council or its committee understand the catch-per-unit effort, i.e. how much work it take to catch a certain amount of that fish. If it takes a much longer time for a vessel to catch a certain quantity of fish than in previous years, that could indicate that the fishery is overfished, making fishing unprofitable.

Overfishing and Rebuilding

When overfishing occurs, a Council must develop a plan to rebuild the stock. After all, National Standard 1 requires optimum yield on a continuing basis. The MSA defines optimum yield as "the amount of fish that will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems."[4] It also includes managing to attain maximum sustainable yield while taking into account relevant social, environmental, and economic factors.

Under the MSA, when a fishery is overfished, an FMP should develop a rebuilding plan that will restore fish to sustainable populations in as short a time period as possible, but not taking more than 10 years.[5] This does not mean the plan must rebuild as quickly as possible. The fastest way to rebuild a fishery is to stop all fishing, but that would destroy the fishing economy, and National Standard 8 requires evaluating a plan's economic impacts on the fishing community.

Notably, courts have held that a plan does not need to guarantee success to be acceptable, but the odds of success should be even. In the case of red snapper in the Gulf, a court rejected a 2005 plan to rebuild within 27 years, in part because the plan had less than a 50 percent chance of success.[6] A different court allowed a Council to choose a rebuilding plan that would make almost no gains to the fishery for two to five years, because the plan that would achieve a quicker recovery was more harmful economically.[7]

While red snapper are no longer considered overfished, some Gulf stocks are undergoing overfishing. For example, NOAA announced on April 8, 2020 that in the Gulf of Mexico both greater amberjack and gray triggerfish are subject to overfishing. On the other hand, a few months later, NOAA found that gray snapper were no longer overfished.[8]

In addition to long-term plans to rebuild a stock, a FMP must plan for how to react to seasonal fluctuations – such as reaching harvest limits before the season is over. The MSA requires FMPs to include Accountability Measures (AMs).[9] Under the regulations that apply to the Gulf of Mexico fisheries, an AM is defined as "a management control implemented such that overfishing is prevented, where possible, and mitigated if it occurs."

One recent example is the accountability measure applied to recreational private anglers for red snapper in the Gulf. Recreational private fishing of red snapper (as opposed to recreational fishing on headboats or charter boats) is managed in part by states. States can dictate the seasons for fishing, but not the annual catch limits (ACL), which are set by the Council in the FMP. In 2020, NOAA found that both Texas and Louisiana private anglers had exceeded catch limits during 2019. The accountability measure for exceeding the ACL is to reduce the next year's harvest by that amount. However, the finding that both Louisiana and Texas exceeded their catch limits in 2019 came well into the 2020 season. In fact Texas, which had exceeded the 2019 limit by 110,526 lbs., had closed its season 20 days before the AM took effect.[10] Louisiana's season was scheduled to end when the ACL was met. But when it was discovered it had exceeded its private angler component by 31,901 lbs. in 2019, its 2020 season was closed September 25, 2020.[11]

Another example of where new information changed fish harvests is in the case of gray triggerfish. In May 2020, the Gulf Council closed the recreational season early, anticipating that the ACL would be reached. But in September, based on more current harvest information, the Council reopened the season using a temporary rule.[12]

Conclusion

Federal fishery management, like so many things, is only as good as the information it is based on. Because it requires balancing multiple interests – both ecologic and

economic – the Councils rely on expert data on the stock they are managing. A strong fishery management plan uses that data continually, and builds a document with flexibility to allow changes so that optimum yield is attained on a continuing basis.

Kristina Alexander is the Editor of Water Log *and a Senior Research Counsel at the Mississippi-Alabama Sea Grant Legal Program.*

Endnotes

1. Federal waters are those at least 3 nautical miles from shore. The waters closer in are managed by the states. In the case of reef fish in the Gulf of Mexico, states are authorized to manage to at least nine miles from shore.
2. Anglers Conservation Network v. Ross, 387 F. Supp. 3d 87 (D.D.C. 2019).
3. 16 U.S.C. § 1853(a).
4. 16 U.S.C. § 1802(33).
5. 16 U.S.C. § 1854(e)(4).
6. Coastal Conservation Ass'n v. Gutierrez, 512 F. Supp. 2d 896, 900 (S.D. Texas 2007).
7. Oceana, Inc. v. Evans, 2005 WL 555416 (D.D.C. March 9, 2005).
8. 85 Fed. Reg. 40181 (July 6, 2020).
9. 16 U.S.C. § 1853(a)(15).
10. 85 Fed. Reg. 52055 (Aug. 24, 2020).
11. 85 Fed. Reg. 60386 (Sept. 25, 2020).
12. 85 Fed. Reg. 54513 (Sept. 2, 2020).

In Sum.

A Summation of the Facts and Figures of Interest in this Edition

Number of eggs per year from a 2-yr old red snapper	350,000
Number of eggs per year from a 20-yr old red snapper	120,000,000
Number of Gulf states that exceeded private recreational red snapper limits in 2019	2
Amount Texas exceeded its limit, in pounds	110,526
Amount Louisiana exceeded its limit, in pounds	31,901