US Regional Fishery Management Councils

Opportunities & Challenges

About the cover: Yellow goatfish (*Mulloidichthys martinicus*) school over a coral reef in the bright clear waters of the Caribbean. Goatfish disperse at night in search for food, using their chemosensory barbels ("chin whiskers") to detect worms and other small invertebrates in the sediments. Although yellow goatfish are not a target of any fishery, the Caribbean Fishery Management Council works to protect reef habitat for these and other reef dwellers. A similar species, yellowfin goatfish (*M. vanicolensis*), is an important commercial fish that is highly esteemed as food in the US Pacific Islands. It is known in Hawaii as *weke 'ula*; in American Samoa as *vete*; and in Guam and the Commonwealth of the Northern Mariana Islands as *satmoneti* (Chamorro language) and *wichigh* (Refaluwasch language). Fisheries for yellowfin goatfish are regulated by the Western Pacific Fishery Management Council as a component of the Fishery Management Plan for Coral Reef Ecosystems.
Photo copyright Larry Lipsky; used with permission.

This brochure was prepared by staff of the Regional Fishery Management Councils, with contributions from David Witherell, Jennifer Gilden, Sylvia Spalding, Pat Fiorelli, Kathy Collins, Kim Iverson, Charlene Ponce, and Diana Martino.

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Two common weke *(goatfish) in Hawaii (the bottom two fish are* M. vanicolensis *and the others,* M. flavolineatus*) assembled for the services of the Hawaiian cleaner wrasse* (Laboides phthirophagus).

Photo by John E. Randall

Courtesy of the Alaska Seafood Marketing Institute

US Regional Fishery Management Councils

Opportunities & Challenges

Introduction

This is a challenging time for fisheries. Increasing human population, fish consumption, and coastal development are putting pressure on fish populations and habitats. Climate change is creating new, unpredictable problems that cannot be solved by a single agency or government. Energy development, Federal and State marine protected areas, and other uses of the ocean are competing spatially with fisheries.

At the same time, Americans are exploring innovative ways to achieve conservation goals, including new approaches to fisheries management, harvesting, marketing, and consumption. These ideas and approaches are being discussed by fishermen, fishing and marketing organizations, conservation groups, public and scientific advisory groups, and fishery managers.

As described in this publication, the eight Regional Fishery Management Councils recognize current challenges in fisheries management and are poised to take advantage of the opportunities provided during this time of change.

Courtesy of the Alaska Seafood Marketing Institute

Regional Management of Fisheries

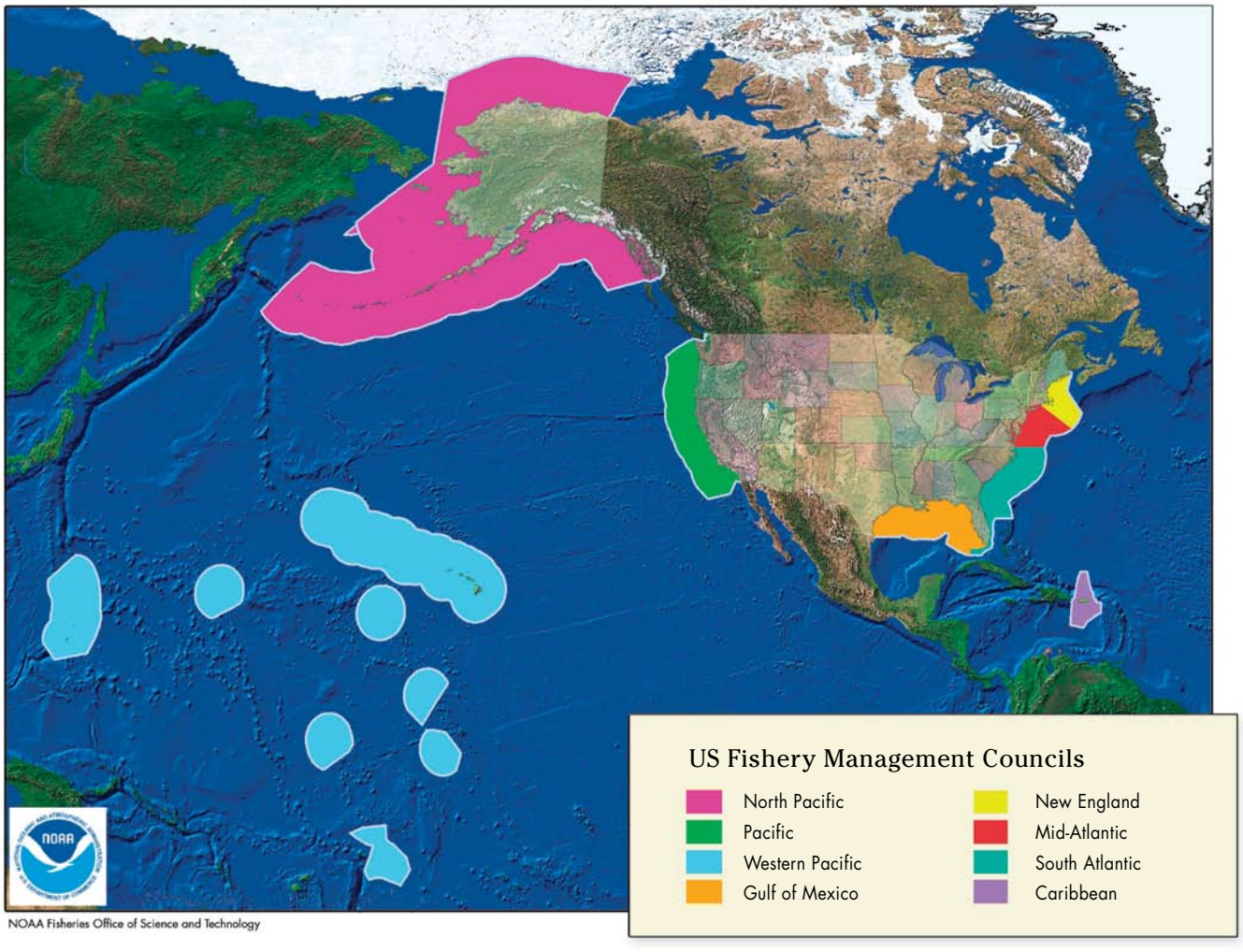
Unlike forestry, mining, and many other natural resource industries, fisheries cannot be effectively managed by a single State or Federal entity. Fisheries differ a great deal across the country. For example, Western Pacific fisheries focus on pelagic and migratory fish stocks such as tuna, which require international management. In the South Atlantic, fisheries provide recreational opportunities for millions of people. In the North Pacific, high volume commercial fisheries target crabs, salmon, and groundfish such as pollock.

To address these regional differences, the Regional Fishery Management Council system was created in 1976 with the passage of the Magnuson-Stevens Fishery Conservation and Management Act. The unique Council system was designed to allow regional, participatory governance by knowlegable people with a stake in fishery management. Each Council's voting members include one National Marine Fisheries Service representative, a representative of each State fishery agency in the Council area, several private citizens nominated by State governors and approved by the Secretary of Commerce because of their specific qualifications, and in some regions, a representative from local tribal or territorial governments. Non-voting membership includes regional representatives from the US Coast Guard, the Department of State, the US Fish and Wildlife Service, and Marine Fisheries Commission.

The eight Regional Fishery Management Councils serve as the front line of fisheries management, where regionally specific management measures (such as fishing seasons, quotas, and closed areas) are initiated, developed, and ultimately adopted in a fully transparent and public process. After adoption by Council vote, these measures are subject to approval by the Secretary of Commerce, regulatory implementation by the National Marine Fisheries Service, and enforcement by the US Coast Guard and other authorities. The Councils develop fishery measures in the offshore area (seaward of state waters out to 200 nautical miles); state waters, typically out to three miles offshore are managed cooperatively with State authorities.

Council decisions are subject to rigorous scientific analysis. Scientists and policy analysts evaluate potential fishery regulations for both environmental and socioeconomic impacts. Proposed regulations are vetted by expert panels of scientists, stakeholders, and by the public, before a Council makes a final decision. The open process provided by the Council system allows everyone to have a say in the stewardship of our marine resources and how fisheries are managed.

Commercial and recreational fisheries have a major economic impact in the United States, both nationally and in the communities where fishing takes place. According to the National Marine Fisheries Service, commercial and recreational saltwater fishing generated more than $185 billion in sales and supported more than two million jobs in 2006. The commercial fishing industry — harvesters, seafood processors and dealers, seafood wholesalers and seafood retailers — generated $103 billion in sales, $44 billion in income and supported 1.5 million jobs in 2006, while recreational fishing generated $82 billion in sales, $24 billion in income, and supported 534,000 jobs the same year. The Council system provides an opportunity to provide stability in fisheries employment for our nation, while protecting marine biodiversity and, in some cases, rebuilding depleted fish stocks.



NOAA Fisheries Office of Science and Technology

Opportunities & Challenges

- *Establishing annual catch limits and catch monitoring programs*
- *Allocating finite fish resources when demand is increasing*
- *Implementing catch share programs to boost efficiency*
- *Developing ecosystem-based approaches for fisheries management*
- *Coordinating with other agencies on ocean use and conservation*
- *Addressing international conservation and management issues*
- *Increasing stakeholder participation and public outreach*
- *Integrating new perspectives on natural resource use and protection*
- *Dealing with increasing workloads without adequate funding*

The recently reauthorized Magnuson-Stevens Act provides the Councils with new opportunities and tools to address management challenges. The Act established four new fishery management goals: to end overfishing, promote market-based fishery management approaches, improve fisheries science and increase the role of science in decision-making, and enhance international cooperation with regard to fisheries management. To attain these goals, the Councils must adopt annual catch limits for each managed fishery, which may not exceed levels recommended by the Councils' Scientific and Statistical Committees. For any fish stocks already subject to overfishing, the Councils must adopt catch limits to end overfishing by the year 2010. For all other stocks, annual catch limits must be established by 2011. The Magnuson-Stevens Act also authorizes and encourages Councils to eliminate derby-style fishing through market-based approaches to management.

In addition to being the primary public forum for developing fishing regulations, the Councils are the best place to integrate ecosystem-based management principles into fishery management. Both the National Oceanic and Atmospheric Administration (NOAA) and the US Commission on Ocean Policy have identified the need for an ecosystem approach to ocean resource management. The regional focus of the Council system provides an ideal opportunity to implement ecosystem-based management at a regional scale, using a bottom-up approach. However, without dedicated funding for on-the-ground ecosystem-based fishery management at the Council level, NOAA's extensive research and development work on ecosystem relationships will remain fallow.

Adequate funding is one of the biggest challenges for the Regional Fishery Management Councils. The ability of Councils to develop new, mandatory programs to comply with the law, provide innovative, fresh approaches to resource conservation, and optimize sustainable economic yield from marine fisheries has been limited by funding. The Councils are currently funded within the National Marine Fisheries Service budget from various line items at a level averaging less than $25 million, divided among all the Councils. Based on a comprehensive analysis of funding needed to meet the basic requirements of the Magnuson-Stevens Act and other laws, as well as new requirements set forth by the recent Magnuson-Stevens Act reathorization, the regional Councils would require funding in the order of $40 million per year. In comparison to the $185 billion in economic activity generated from fisheries each year, funding for the Councils is a small investment to ensure healthy oceans and fisheries for future generations.

Mark Fina, NPFMC

Mark Fina, NPFMC

Rex Murphy

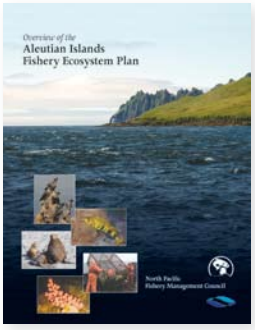
North Pacific Fishery Management Council

The North Pacific Fishery Management Council develops management plans, programs, and fishing regulations for the commercial groundfish fisheries off Alaska. These fisheries target Pacific cod, pollock, flatfish, mackerel, sablefish and rockfish species using trawl, longline, jig, and pot gear. The Council also makes allocation decisions for commercial and recreational halibut fisheries in concert with the International Pacific Halibut Commission. Other large commercial fisheries for salmon, crab, and scallops are managed jointly by the Council and the State of Alaska.

North Pacific Fishery Management Council
605 West Fourth Avenue, Suite 306
Anchorage, Alaska 99501-2252
Phone: (907) 271-2809
Fax: (907) 271-2817
Website: www.alaskafisheries.noaa.gov/npfmc

Opportunities & Challenges

Implementing Ecosystem-based Management



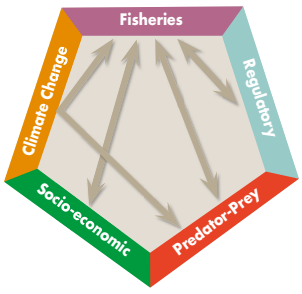
The North Pacific Council understands that fishing and other activities can impact marine ecosystems. Over the years, the Council has implemented restrictive measures to minimize fishing-related impacts to the marine environment by preventing the overharvest of fish resources, conserving benthic habitat, and protecting marine mammals and seabirds. More recently, the Council has been actively taking steps to implement ecosystem-based management off Alaska in a more comprehensive manner.

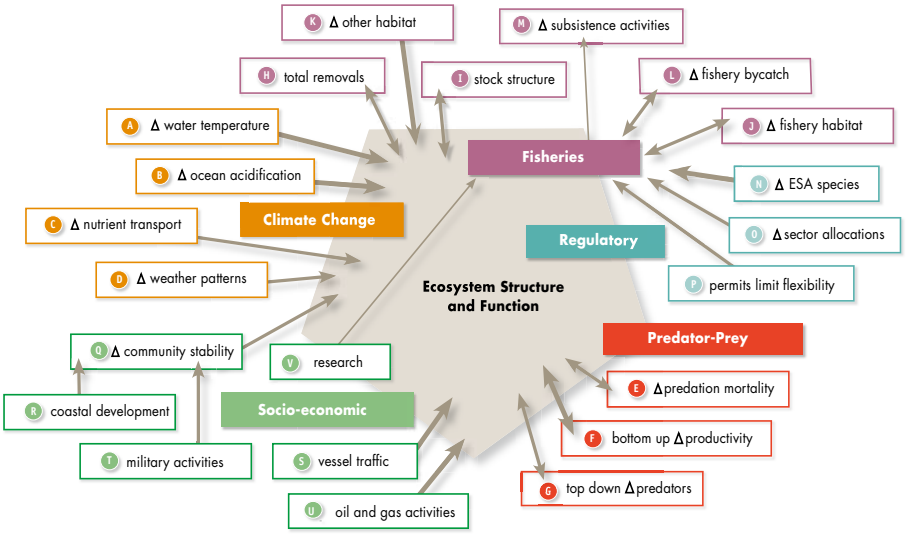
In 2007, the North Pacific Council adopted a Fishery Ecosystem Plan for the Aleutian Islands area. The Fishery Ecosystem Plan is a guidance document that looks holistically at the Aleutian Islands ecosystem, and at the relationships between the different fisheries, physical and biological characteristics of the ecosystem, human communities, and socio-economic activities ongoing in the area. The document includes a non-quantitative risk assessment and discusses implications for management. Development of Fishery Ecosystem Plans for other large marine ecosystems off Alaska could improve the Council's understanding and ability to evaluate fishery management decisions affecting these ecosystems.

To address non-fisheries issues, such as coastal development and other marine activities, the Council organized the Alaska Marine Ecosystem Forum to bring together representatives from the region's state and federal agencies to meet regularly to communicate issues and coordinate research and management activities. The Forum provides an opportunity to expand regional ecosystem-based management approaches across the full spectrum of state and federal marine agencies.

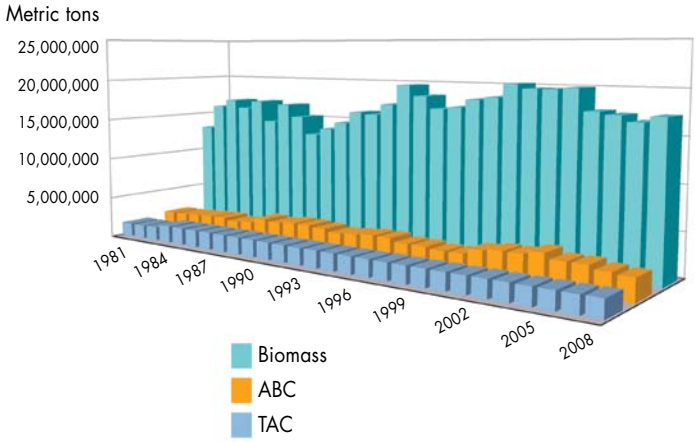
Aleutian Islands Ecosystems Interactions

Interactions of ecosystem components evaluated in the Aleutian Islands Fishery Ecosystem Plan risk assessment.





Bering Sea & Aleutian Islands Groundfish Catch Limits



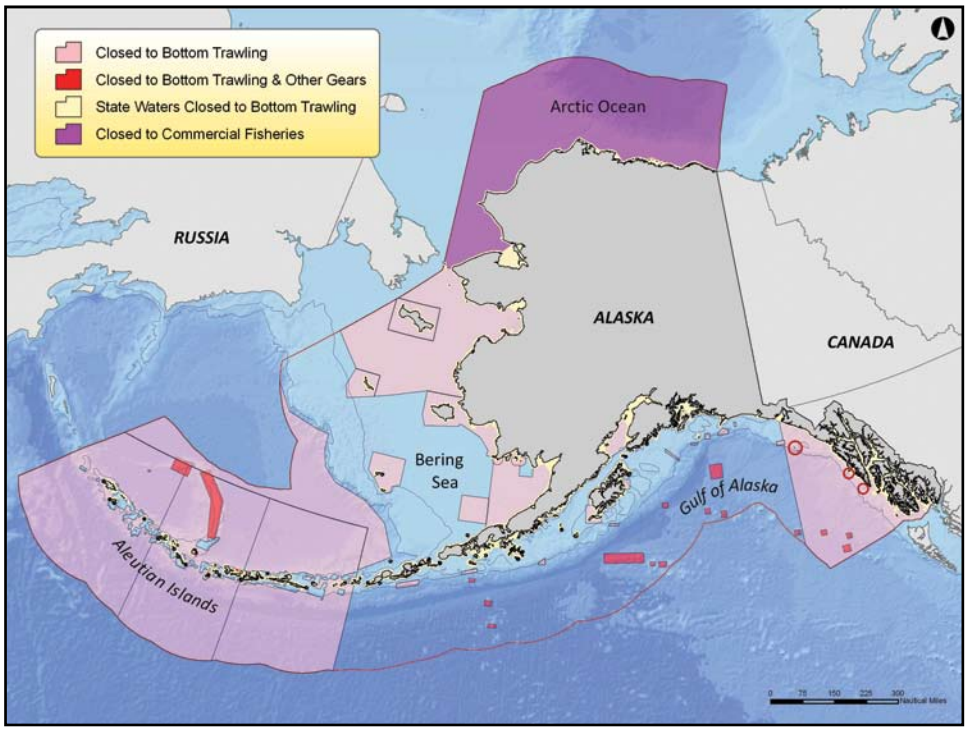
Annual groundfish harvests are managed not to exceed the total allowable catch (TAC) limits, which are set below scientifically allowable biological catch (ABC) limits. Only a small portion of the biomass is harvested each year.

Preparing for Climate Change

With the Arctic ice cap receding, it has become apparent that unregulated commercial fisheries could quickly develop in northern areas. The Council took charge of this situation, and in February 2009, adopted a precautionary fishery management plan for the Arctic region that prohibits all commercial fishing until the science is available to understand the impacts of such activities.

The North Pacific Council has provided responsible stewardship of the region's marine resources for over 30 years. First and foremost, the Council strictly limits the amount of fish that can be removed from the ocean each year. Precautionary, scientifically-based catch limits are annually adjusted to reflect current abundance/biomass for each fish stock, and the Council sets the annual catch quota below these limits. Stock abundance in a given year is a result of the number of young fish recruiting to the stock, which of course depends on environmental conditions for survival. When a catch limit is reached, based on an effective catch monitoring system which includes an observer program, a fishery is closed for the rest of the season. As a result, groundfish stocks are not overharvested and most stocks are abundant and well above biomass levels that produce maximum sustainable yield. Because catches can be quickly adjusted to environmental conditions, the Council's system of setting and monitoring catch limits is well suited to address the challenges and uncertainties associated with climate change.

In addition to limiting how many fish are caught in the North Pacific, the Council develops other regulations to ensure sustainable production and healthy fisheries. Limits have been established to minimize the bycatch, discard, and waste of fishery resources. Gear requirements, together with season and area restrictions, have greatly reduced impacts on marine mammals and seabirds.



Areas off Alaska where bottom trawling and other fishing gears are prohibited year-round.

Gretchen Harrington, NMFS

The Council has also developed an extensive suite of marine protected areas to conserve fish habitat and minimize impacts of fishing on vulnerable species, such as crabs, marine mammals, and deep-sea corals. For example, over 673,000 square miles have been closed to bottom trawling or other fishing gears, which equates to about 62% of entire region. The Council has also established several marine protected areas where all bottom-contact fishing gear is prohibited. These areas, which essentially function as marine reserves, have been designated in discrete areas to protect particularly sensitive habitat types such as deep sea coral communities, unique ecosystems such as pinnacles and seamounts, and in areas where scientific data are limited, such as the Arctic Ocean.

National initiatives to expand the system of marine protected areas and marine sanctuaries may create challenges for the Council in achieving optimum yield of marine resources. Of critical importance is retaining the role of the Council in developing, evaluating, and establishing any new marine protected areas to preserve biodiversity or as a buffer against the effects of climate change, as well as regulating activities within existing marine protected areas.

Providing Economic Stability

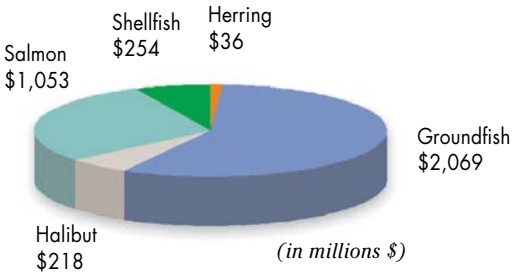
When catch is constrained by annual catch limits, it is natural for fishermen to maximize their catch before the limit is reached and the season ends. Programs that allocate a portion of the annual catch limit to fishermen serve to end this race for fish, resulting in safer, more stable and sustainable fisheries.

The North Pacific Council has implemented limited access privilege programs for many fisheries to date: Alaska halibut and sablefish, Gulf of Alaska rockfish, Bering Sea pollock, Bering Sea crab, and Bering Sea flatfish, rockfish, and mackerel fisheries. Additionally, the Council developed a community development quota program that allocates a portion (10.7%) of the available catch limits for groundfish and crabs, as well as various portions of the commercial halibut harvest, to entities representing 65 small coastal villages in western Alaska. This program provides employment to 2,000 people and generates over $100 million in revenue annually for these coastal communities.

The greatest challenges for developing limited access privilege programs include limiting consolidation to meet policy goals, providing opportunities for new people to enter the fisheries, and protecting the fabric of coastal communities. The approach afforded by the Council process, with public input at every step, provides a good opportunity to fairly address these challenges.

First Wholesale Value of Alaska Seafood Products by Major Species Group • 2007

Total: $3.63 billion



Jennifer Gilden, PFMC

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Pacific Fishery Management Council

The Pacific Fishery Management Council manages fisheries for salmon, groundfish, coastal pelagic species (sardines, anchovies, and mackerel), and highly migratory species (tunas, sharks, and swordfish) off the coasts of Washington, Oregon, and California. The Pacific Council also works with the International Pacific Halibut Commission, the Western and Central Pacific Fisheries Commission, and the Inter-American Tropical Tuna Commission to manage fisheries on internationally commingled stocks.

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384
Phone: (503) 820-2280
Toll Free: (866) 806-7204
Fax: (503) 820-2299
Website: www.pcouncil.org

Opportunities & Challenges

Jennifer Gilden, PFMC

In recent years, the Pacific Council has been successful at rebuilding overfished groundfish stocks, rationalizing the West Coast groundfish trawl fishery, protecting habitat, and managing ocean salmon seasons. However, challenges remain in the management of West Coast marine fisheries, together with opportunities for improvement.

Developing an Ecosystem-based Management Plan

The Pacific Council has a demonstrated need to develop and implement an ecosystem-based fishery management plan (FMP). The Council has successfully employed spatial management concepts for years and has recommended closed areas to rebuild overfished species, minimize bycatch, and preserve essential fish habitat. Further, the Council has set aside otherwise harvestable amounts of sardine and krill for ecosystem needs as prey species, and has taken other ecosystem-based actions. However, Council management can be enhanced under the auspices of a formal ecosystem FMP.

The authority to manage fishery-related impacts across all living marine resources is fundamental to achieving broad ecosystem-based protective measures. An ecosystem FMP will play an important, long-term role in coordinating our efforts to protect habitat, regulate fisheries, establish marine protected areas and marine reserves, and minimize bycatch.

Jennifer Gilden, PFMC

A National Marine Fisheries Service (or NOAA Fisheries) biologist measures a sole during a trawl survey off the West Coast.

The Pacific Council is poised to begin active ecosystem-based fishery management as soon as proper funding is provided. The Council has adopted an approach for developing an ecosystem-based FMP that would serve as an "umbrella" plan over the four existing FMPs, helping with coast-wide research planning and policy guidance, and creating a framework for status reports on the health of the West Coast's California Current ecosystem that would influence active fishery management. The plan would not displace existing FMPs, but would advance management by introducing new science and new authorities to the current process.

Managing Salmon Fisheries

In recent years, West Coast salmon management has been especially challenging due to low salmon returns in the Klamath River and Sacramento River systems, which have traditionally supported the fishery for a large part of the West Coast. Since the Pacific Council does not have jurisdiction over habitat, water withdrawals, urbanization and other activities that impact salmon, the only available response is to provide comments to agencies with jurisdiction in those areas, and to cut back commercial and recreational harvest limits. Notably, the Council took the unprecedented action of closing all ocean Chinook salmon fisheries off California and most of Oregon in 2008 and 2009.

However, there are new opportunities in salmon management. In 2009, for the first time, the Pacific Council considered managing northern ocean salmon fisheries to selectively catch hatchery-produced Chinook salmon only. This would be done by allowing fishermen to retain only adipose fin-clipped fish, and requiring them to release wild, non fin-clipped fish. This type of fishery management has been successfully used in freshwater fisheries for salmon and steelhead, and coho salmon in the ocean fisheries. Additionally, emerging technologies such as tissue-based genetic stock identification may also provide new information that helps us protect fish stocks at risk while focusing fisheries on healthy stocks.

Rebuilding Overfished Groundfish

The Pacific Council manages over 92 groundfish species, some of which are actively fished, and some of which are not. Of the species subject to active fishing, 30 species have been assessed; more assessments of new species are planned. Of these 30 species, 19 are at healthy levels of abundance; four are at a precautionary level of abundance; and seven are designated overfished (cowcod, bocaccio, yelloweye rockfish, canary rockfish, darkblotched rockfish, Pacific ocean perch, and widow rockfish). Two species previously designated as overfished, lingcod and whiting, were rebuilt during the last decade. Of the currently overfished species, all are under rebuilding plans, and show an improving trend. Widow rockfish are expected to be rebuilt in 2009, and Pacific ocean perch in 2011.

Assessing the state of rebuilding overfished groundfish is challenged by a lack of essential research data and associated stock assessments. Existing fishery-independent surveys do not adequately collect data on some species, such as yelloweye rockfish and cowcod. There are emerging opportunities for non-lethal surveys for these species using acoustics, sonar, and submersible vehicles. The Council encourages additional population data collection using these new, more sophisticated methods.

Jennifer Gilden, PFMC

Jennifer Gilden, PFMC

Coordinating with Marine Sanctuaries and Marine Protected Areas

There are five National Marine Sanctuaries on the West Coast, comprising a greater percentage of the coastline than in any other Council area. The Pacific Council and five National Marine Sanctuaries share goals, and have successfully worked together on many activities. However, there are challenges to implementing fishing regulations across Sanctuary boundaries. The Council has extensive scientific expertise and infrastructure in place for active fishery management and is charged under the Magnuson-Stevens Act to manage fish stocks throughout their range. The National Marine Sanctuaries Act is expected to be reauthorized in the near future; as a part of this process, jurisdictional clarification is needed. In addition, the Pacific Council's ecosystem FMP will be an effective tool in achieving the shared goals of the Council, NMFS, the National Ocean Service, and the Sanctuaries.

Evaluating Wave Energy and Competing Uses of the Ocean

Since 2005, interest in renewable energy (including wave, tidal, and offshore wind energy) has surged, driven by efforts to develop energy alternatives in order to reduce fossil fuel consumption and carbon emissions. The coast of the Pacific Northwest is believed to be among the best locations in the world for wave energy. However, little is known about the environmental impacts of these activities.

As of March 2009, 23 projects are proposed off the West Coast. Some of these are in the very early planning stages, and may not continue to move forward; others are further along and appear to be a real possibility. Wave energy development is being promoted by universities, by the Federal government, and by state and municipal governments.

Jennifer Gilden, PFMC

Commercial and recreational fishing communities are concerned about the potential impacts of wave energy in terms of area closures and impacts on fish stocks and habitat. Many wave energy developments have been proposed in prime fishing areas. Since this technology is new to the Pacific coast, a great deal of information still needs to be gathered on its environmental, biological, and fisheries impacts. The Council will need resources to formulate a response to these developments.

Mike Burner, PIFMC

© Judah J. Gould/Marine Photobank

Northern Islands Mayor's Office, CNMI

Western Pacific Fishery Management Council

The Western Pacific Region includes the State of Hawaii; the US Territories of American Samoa and Guam; the Commonwealth of the Northern Mariana Islands (CNMI); and the US possessions of Johnston, Midway, Palmyra and Wake Atolls; Baker, Howland and Jarvis Islands; and Kingman Reef. This area of nearly 1.5 million square miles is the size of the US continent, constitutes about half of the US EEZ and spans both sides of the dateline and equator. The Western Pacific Council is the most internationally focused of the regional councils. Its largest fisheries target highly migratory pelagic fish and interact with highly migratory protected species within the EEZ and on the high seas. The Region includes a large indigenous population with traditional cultural ties to fishing that span millennia. Its archipelagos lack continental shelves and large land areas, but are rich in coral reef ecosystems that are home to thousands of marine species. Bottomfish, crustaceans, precious coral and coral reef related fisheries are regulated by archipelago using an adaptive, place-based ecosystem approach. Pelagic species are managed under a separate region-wide fishery ecosystem plan.

Western Pacific Regional
Fishery Management Council
1164 Bishop Street, 1400
Honolulu, Hawaii 96813
Phone: (808) 522-8220
Fax: (808) 522-8226
Website: www.wpcouncil.org

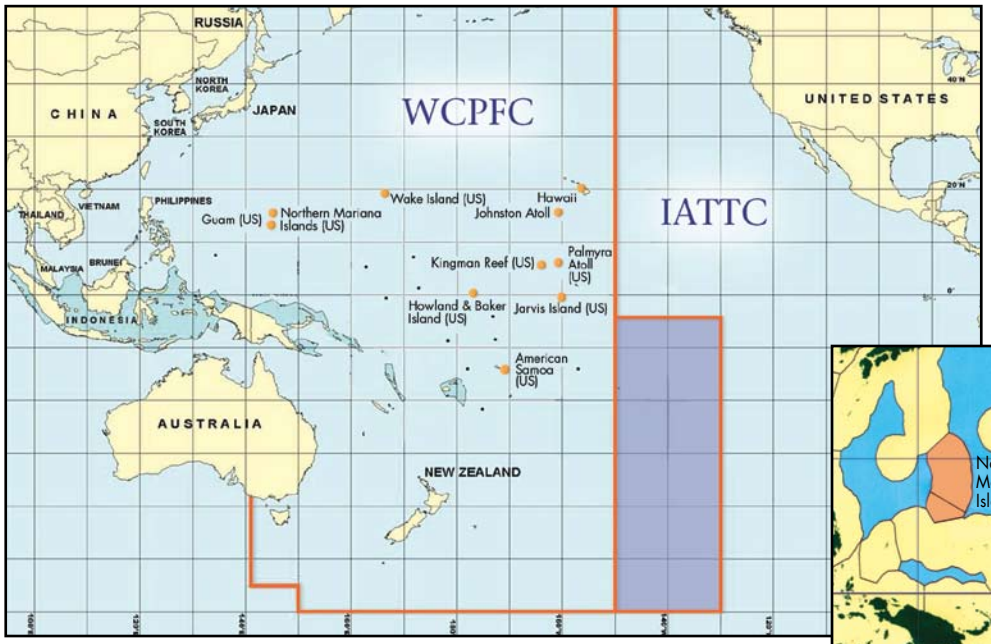
Opportunities & Challenges

Participating in International Fisheries Management

Honolulu ranks among the nation's top 10 fishing ports in value of landings because of the quality of the tuna and swordfish harvested by the Hawaii-based longline fishery. This fleet is part of the Pacific-wide tuna industry, which provides two-thirds of the world's tuna supply and is worth billions of dollars in annual landings.

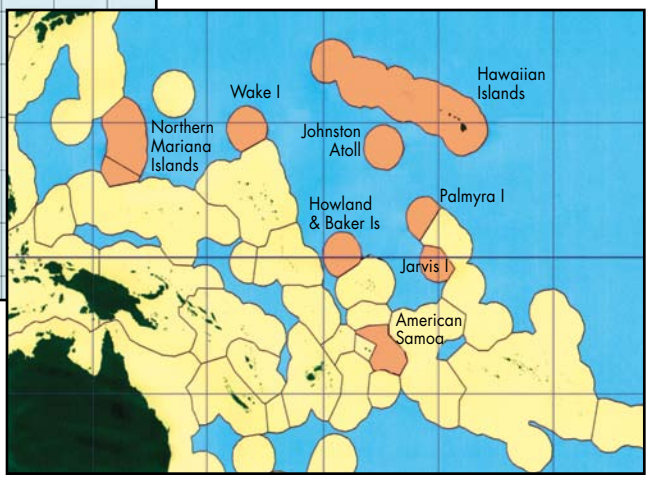
Growing concern about Pacific-wide overfishing of bigeye tuna and the future of yellowfin tuna have prompted the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC) to adopt national quotas, effort limits and other measures to reduce and stabilize purse-seine and longline harvesting. Hawaii vessels fish in the jurisdictions of both of these international organizations and are subject to both of their management measures. The Council spends a significant amount of time and resources participating in these organizations to ensure the future of the Hawaii and American Samoa longline fisheries (which account for less than 5% of the Pacific-wide longline catch and effort) and the emerging longline fishery in the Mariana Archipelago (CNMI and Guam).

Two other international fishery management organizations are emerging in the Pacific for seamount-based fisheries. One of these, the North Pacific Convention, is important to the Council as seamounts are a prominent feature within the US EEZ around the Mariana Archipelago and on the high seas north of Hawaii. The Convention provides the opportunity for the Council to participate in development of management measures for seamount-based resources that straddle domestic and international waters.



Jurisdictional areas of the international regional fishery management organizations in the Pacific — the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC).

Jurisdiction boundaries
Under Western Pacific Council jurisdiction
Jurisdiction of both WCPFC and IATTC



EEZ Waters Managed by the Western Pacific Council

© Dan J. McSweeney/Wild Whale Research Foundation

Protecting Sea Turtles and Other Protected Species

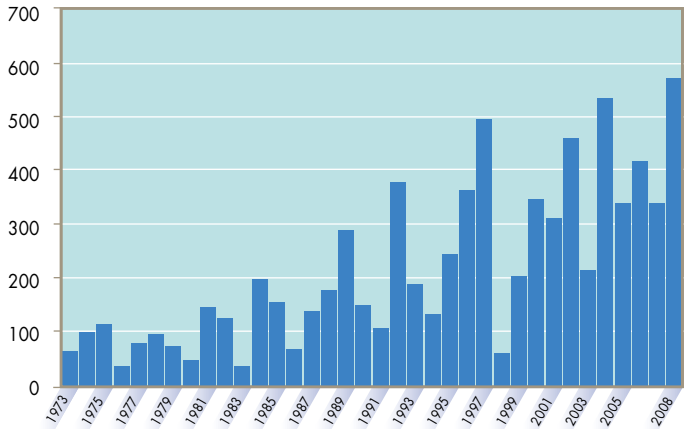
The Western Pacific Council has been very successful at protecting sea turtles and minimizing the effects of fisheries on seabirds. New management measures implemented in 2004 for the Hawaii longline fishery for swordfish have reduced bycatch of seabirds and sea turtles by more than 90%. Through Council-hosted International Fishers Forums, exchange programs and workshops, knowledge of these successful measures (e.g., circle hooks, side setting, night-setting, bait type) have been transferred to fishermen and governments Pacific-wide.

The Council's sea turtle projects have led to increased numbers of protected nests and reduced poaching of turtle eggs in Japan, Papua New Guinea and Indonesia, where leatherbacks and loggerheads that transit Hawaii waters originate. In Mexico, where these loggerheads forage, the Council has supported education, outreach and research to reduce sea turtle interactions in coastal artisanal fisheries. The Council's seven-year partnership with the Secretariat of the Pacific Regional Environment Program and other organizations has led to the launch of the Turtle Research and Monitoring Database System, which centralizes and standardizes data from throughout the Pacific.

Still, much critical and urgent work remains. Stock assessments for sea turtles and whales are needed so that the impacts of fisheries are better understood and the validity of fishery management decisions — such as closing the Hawaii fishery if it interacts with 16 leatherback or 17 loggerhead sea turtles — can be made. Both a long-term strategy and a much-needed funding mechanism for Pacific sea turtle conservation have been developed but not implemented. The significant bycatch of sea turtles by foreign coastal static net fisheries has been identified but not addressed. And, despite the recovery of the Hawaii green sea turtle, harvests for indigenous and ceremonial purposes are still not allowed.

Community-based rangers learn how to collect nesting beach data for leatherback sea turtles in Papua New Guinea.

Green Turtle Nesting at East Islands
French Frigate Shoals, Northwestern Hawaiian Islands
Annual Trend for 36 Seasons • 1973-2008



George Balazs, Marine Turtle Research, Pacific Islands Fisheries Science Center, National Marine Fisheries Service

The traditional fishing of atule (scad) by an American Samoa village. Photo by Evelyn Lili'o

Promoting Indigenous and Community Programs

For thousands of years, the ocean has been a primary source of nutrition, materials, knowledge and spirituality for the indigenous communities of the Western Pacific Region. The Magnuson-Stevens Act acknowledges this, stating that the "Pacific Island areas contain unique historical, cultural, legal, political and geographical circumstances which make fisheries resources important in sustaining their economic growth." It created three programs —the Community Demonstration Project Program (CDPP), Community Development Program, and Marine Education and Training Program — to promote continued participation of indigenous communities in Pacific Island fisheries. The Council plays a significant facilitation role in these programs. In 2006 and 2007, it hosted the *Hoohanohano I Na Kupuna* (Honor Our Ancestors) *Puwalu* (conference) series to develop a consultation process with Native Hawaiians in the ecosystem-based management of fisheries.

Today, the Region's indigenous communities are threatened by economic instability and increased loss of fishery rights, practices and associated traditional ecological knowledge. A US federalization process is imposing minimum wage standards and withdrawing local immigration authority. These moves are jeopardizing the American Samoa tuna canneries, CNMI garment and tourism industries, and other businesses. The Chamorro and Refaluwasch populations are becoming an even smaller minority on Guam and CNMI due to the relocation of the US military base and operations from Okinawa to these islands. The anticipated influx of 40,000 military families and contract workers will increase competition for local marine resources and access to them. At the minimum, an effective community cultural consultation process in each of the island areas and annual CDPP funding, as authorized by the Magnuson-Stevens Act, are needed.

Managing Coral Reef Fisheries

The coral reefs in the Western Pacific Region contain several thousand fish and shellfish, making this Region arguably the most bio-diverse of all the Council regions. Several hundred species are regularly harvested. The Council's Coral Reef Ecosystem Fishery Management Plan (FMP), implemented in 2004, was the nation's first ecosystem-based FMP. The Council has since transformed all of its species-based FMPs into place-based fishery ecosystem plans.

Unfortunately, data needed for best management of many coral reef fisheries is either lacking or has not been inventoried, reviewed and analyzed. Also needed are household surveys to gather social and economic information, analytical capacity-building in local fishery agencies, and economic valuation of coral reef fisheries. Such accounts are of vital importance from an ecosystem management perspective as coral reefs do not exist in a stable equilibrium but are subject to a variety of natural and anthropogenic forces. For example, typhoon/cyclones can reduce coral coverage by 90 percent. Stream channelization and divergence has significantly impacted near-shore waters and coral reef ecosystems—storm-water flow and related sedimentation has increased while freshwater flow and related nutrient input has been halved archipelago-wide. Additionally, greater effort is needed to evaluate the impacts of no-take marine protected areas as a fisheries management tool. The same needs for review apply to other management measures for coral reef fisheries, such as bans on particular gears, minimum retention lengths and closed seasons.

Peter K. Prybot

Dann Blackwood

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New England Fishery Management Council

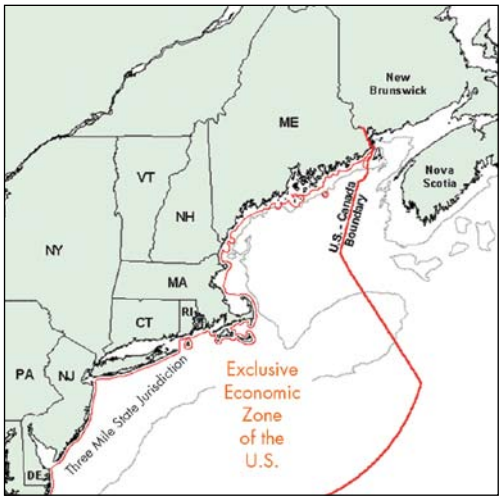
The New England Fishery Management Council is charged with conserving and managing fishery resources from three to 200 miles off the Maine, New Hampshire, Massachusetts, Rhode Island and Connecticut coastline. Its jurisdiction extends to fishing grounds in the Gulf of Maine and Georges Bank, and in southern New England. The New England Council develops fishing regulations that affect both large and small-scale commercial and recreational fishing.

The Council has implemented nine fishery management plans: a Northeast Multispecies plan for cod, haddock, flounder and other groundfish species; a Small Mesh Multispecies plan for whiting and hake fisheries; a Northeast Skate Complex plan that includes seven species of skates; as well as plans for Sea Scallops, Atlantic Herring, Red Crab, and Atlantic Salmon. Monkfish and Spiny Dogfish plans are prepared jointly with the Mid-Atlantic Council.

New England Fishery Management Council
50 Water Street, Mill 2
Newburyport, MA 01950
Phone: (978) 465-0492
Fax: (978) 465-3116
Website: www.nefmc.org

New England
Fishery Management Council

Opportunities & Challenges

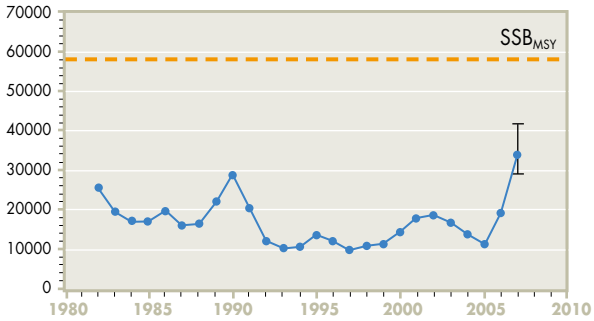


The New England Council will address an ambitious set of priorities over the next several years to meet the requirements of the reauthorized Magnuson-Stevens Act and significantly improve its management programs. Specifically, the Council will develop annual catch limits and accountability measures, adopt a catch share-based management program in the groundfish fishery, protect vulnerable habitat areas, improve overall economic performance in the fisheries, and prepare an ecosystem-based fishery management plan.

Implementing a catch share program for groundfish

The Council currently is working to expand the catch share program for the multispecies groundfish fishery. Implemented in 2004 for New England's cod fishery, the program successfully controlled catch while providing participants with a direct role in management decision-making.

Gulf of Maine Cod Summary Stock Status

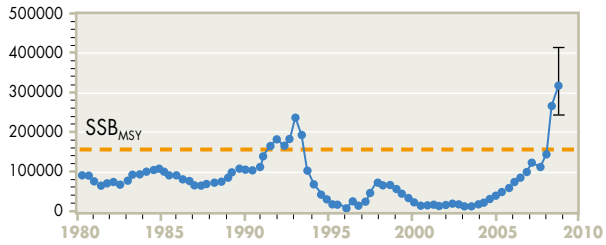


Similar to a harvesting cooperative, each sector in the catch share program — a group that defines itself by gear type, area, target species or other criteria — will receive an allocation of the total allowable catch limit for stocks in the groundfish complex. The sectors themselves will address the internal allocation of fish among members, providing greater flexibility for fishermen to decide how to fish most efficiently. A catch share program will benefit struggling fishing businesses and coastal communities in New England, particularly during the transition period when groundfish catch limits are set low and stocks are rebuilding.

When fully rebuilt, these same groundfish stocks should produce nearly triple the current catches. Managing a rebuilt fishery will present different challenges as the Council balances the need to protect weak or vulnerable stocks, while maximizing the harvest of abundant stocks such as haddock and redfish.

Peter K. Prybot

Georges Bank Haddock Summary Stock Status

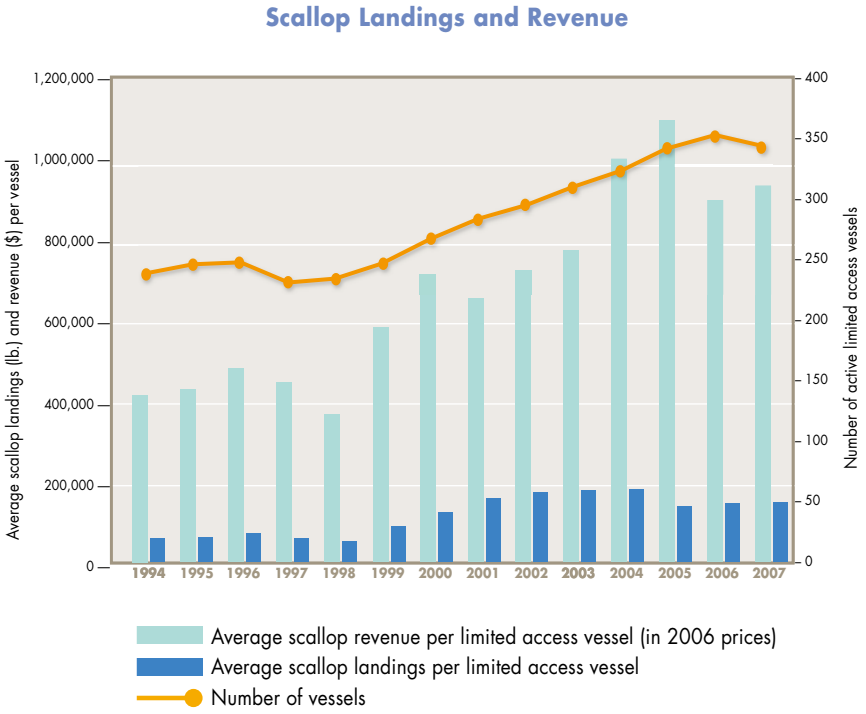


Generating Jobs and Value from Scallop Fisheries

The sea scallop resource off New England is currently at historic high levels. Each of the last five years has produced scallop landings in excess 50 million pounds annually. The spectacular recovery of the scallop resource is the result of an innovative program developed by the Council to control the level of fishing. The program rotates access to harvest areas, similar to crop rotation for farms, to enhance scallop productivity. Coupled with specific rules for other areas, fishing is carefully monitored to maximize revenues while preventing overfishing.

The productivity of the resource has allowed not only an increase in landings, but in the number of active full-time vessels — from 220 to 345 between 1994 and 2007. Generating well over $300 million in revenues in 2007, scallop landings have propelled New Bedford, Massachusetts to the position of number one port in the nation for value of landings for the last eight years.

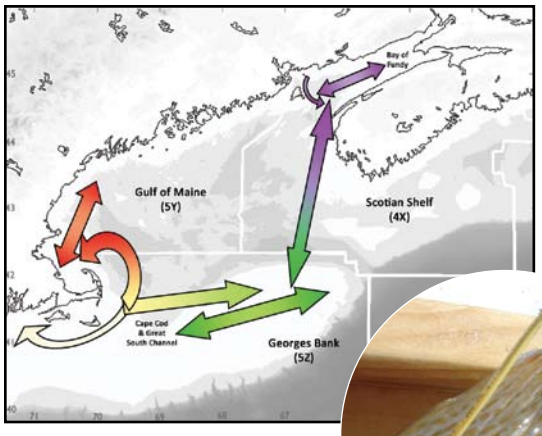
Even with the sea scallop resource at historically high levels, challenges remain. Scallop fishing on Georges Bank is constrained not by the amount of scallops available, but by a cap on the bycatch of yellowtail flounder. While solutions are under development, there also are concerns about the interactions between scallop gear and threatened and endangered sea turtles in the Mid-Atlantic region.



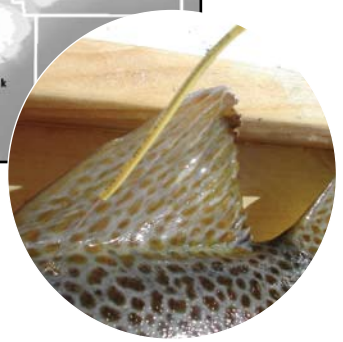
Developing Innovative Solutions Through Research

Maintaining sustainable fisheries and healthy fishing communities requires good decision-making as well as sound science and adequate information systems. For example, implementing catch limits will require more frequent stock assessments, the development of improved analytical tools, and the implementation of effective monitoring programs to determine total catch and discard levels.

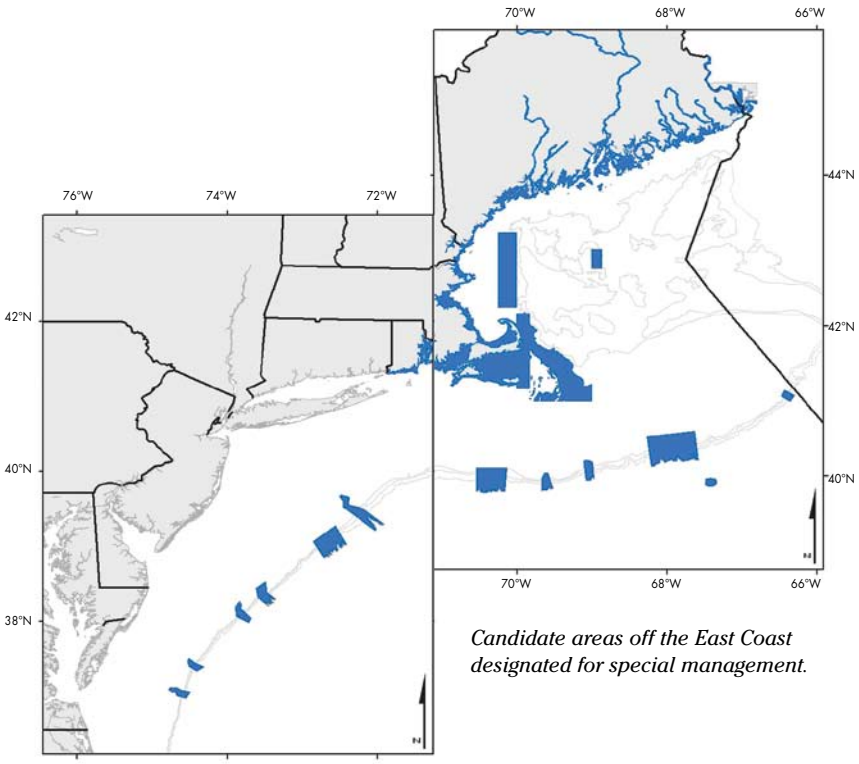
As a way to address these needs, the Council developed research set-asides — a percentage of the total allowable catch limit — for its scallop, herring and monkfish fisheries to provide funding for cooperative research projects. In these programs, fishermen partner with scientists to answer questions of mutual interest and address management questions.



"Migration highways" for cod in the Gulf of Maine region.
Shelley Tallack, Gulf of Maine Research Institute



Cooperative research has led to the development of gear modifications that reduce groundfish bycatch and effectively lower the risks of encounters with turtles in the scallop fishery. Cooperative research funds also have supported scallop, groundfish, and monkfish industry-based surveys, tagging programs, habitat assessments and a range of important gear modifications that have directly contributed to improved fisheries management.



Candidate areas off the East Coast designated for special management.

Protecting Vulnerable Habitat

The New England Council recently completed the first phase of a thorough habitat evaluation and conservation status review. Essential fish habitat designations were updated with detailed scientific descriptions of each managed species life-stage. The Council also designated special status to 18 areas off the east coast that may need additional levels of protection because they serve an important ecological function, are sensitive to environmental degradation and development, or are uncommon in this region. These areas include offshore canyons on Georges Bank and in the Mid-Atlantic, and areas of the Great South Channel and the inshore Gulf of Maine that are important to juvenile cod. The final phase of the habitat review will include analytical approaches for assessing the level and spatial extent of adverse impacts due to fishing activities, and provide increased habitat protection where it is most needed.

Working Towards Ecosystem-based Fisheries Management

The New England Council will begin developing a fishery ecosystem plan in 2010. The plan will provide a comprehensive source of information that would apply across fishery management plans. This holistic approach will allow the Council to make informed decisions that not only support sustainable fish populations, but also the health and general productivity of our oceans.

Challenges associated with developing an ecosystem-based fishery management plan will include the development of indicators of ecosystem health and predictive models to demonstrate ecosystem dynamics, useful assessments of non-fishing impacts and competing uses, and the establishment of appropriate linkages between impacts and productivity.

Karen Roeder

Mid-Atlantic Fishery Management Council

The Mid-Atlantic Fishery Management Council develops fishery management plans and fishery regulations for fisheries off the central east coast of the United States. The seven states that comprise the Mid-Atlantic Council region are New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, and North Carolina. The Council manages fisheries for summer flounder, scup, black sea bass, Atlantic mackerel, longfin squid, shortfin squid, butterfish, bluefish, tilefish, surfclams, and ocean quahogs. The Council jointly manages spiny dogfish and two stocks of monkfish with the New England Fishery Management Council, and works with the Atlantic States Marine Fisheries Commission to cooperatively manage other fisheries in the region.

Mid-Atlantic Fishery Management Council
Suite 2115 Federal Bldg.
300 S. New Street
Dover, DE 19904-6726
Phone: (302) 674-2331
Toll Free: (877) 446-2362
Fax: (302) 674-5399
Website: www.mafmc.org

Opportunities & Challenges

Providing Good Stewardship

The Mid-Atlantic Council has been very successful at recovering and rebuilding depleted fish stocks by adhering to principles of sound stewardship. The Council has implemented measures to prevent overfishing and rebuild previously depleted stocks including surfclams, ocean quahogs, Atlantic mackerel, scup, bluefish, monkfish, spiny dogfish, and tilefish. Of the 14 stocks managed by the Council, only butterfish is currently categorized as "overfished", and only black sea bass is subject to overfishing. The challenge will be to continue these overall successes, as well as provide additional opportunities for fishing related businesses to grow.

In 1990, the Council implemented an individual transferable quota program for the surfclam and ocean quahog fisheries, in which catch amounts were allocated to individual vessel owners. This was the first limited access privilege program in the United States. The program not only worked to rebuild the stocks, it reduced the number of vessels in the fishery, tripled the average harvests per vessel, eliminated derby fishing, and increased profits for participants. Due to the success of this program, the Council adopted and submitted for Secretarial approval a limited access privilege program for the tilefish fishery. The Council will continue to avail itself of the opportunity to use limited access privilege programs as a tool for the sustainable management of marine resources in the region.

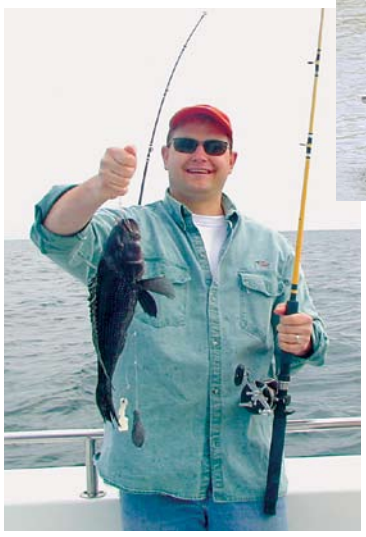
Working Towards Ecosystem-based Management

One of the more direct and practical approaches to ensure healthy marine ecosystems is to protect the habitats used by fishes and other organisms. The Mid-Atlantic Council has developed measures to minimize the effects of fishing on benthic habitats essential for survival and reproduction of fish stocks. These measures include restrictive harvest limits, gear-restricted areas for small-mesh fisheries, and closed areas in selected canyons. Additionally, rebuilding plans implemented by the Council have increased the abundance of fish in the region and reduced fishing effort, which together have had a positive impact on habitat and the marine ecosystem.

In 2004, Congress tasked the Mid-Atlantic Council to initiate a pilot study to explore ways to implement ecosystem-based fishery management in a more holistic manner. The pilot project that the Council undertook during 2005-2007 provided an opportunity for the public to voice their opinion regarding the goals and objectives of an ecosystem approach to fisheries. The intent of the project was to provide a framework for organizing information about the structure and function of ecosystems, and for developing ways to enhance decision-making when single species or fishery specific management approaches are not achieving their goals. The Council will be challenged to move ahead with implementing ecosystem-based fishery management in the region without additional funding to support the necessary research and analysis.

Enhancing Recreational Fishing Opportunities

Each year, over four million recreational anglers fish for bluefish, summer flounder, croaker, striped bass, and black sea bass in the mid-Atlantic region. The Council is developing a guide for recreational catch-and-release fishing that encourages sport fishermen to follow certain practices to enhance the survival of fish that are released. Careful release of sport-caught fish is a conservation measure, and the guide provides practical suggestions on how to handle and release fish, as well as an overview of fishing tackle that can be used to improve survival. By providing this brochure, and similar educational publications, the Council is raising the public's awareness of conservation practices in recreational fisheries and contributing to the rebuilding of fish stocks to their maximum sustainable yield levels.

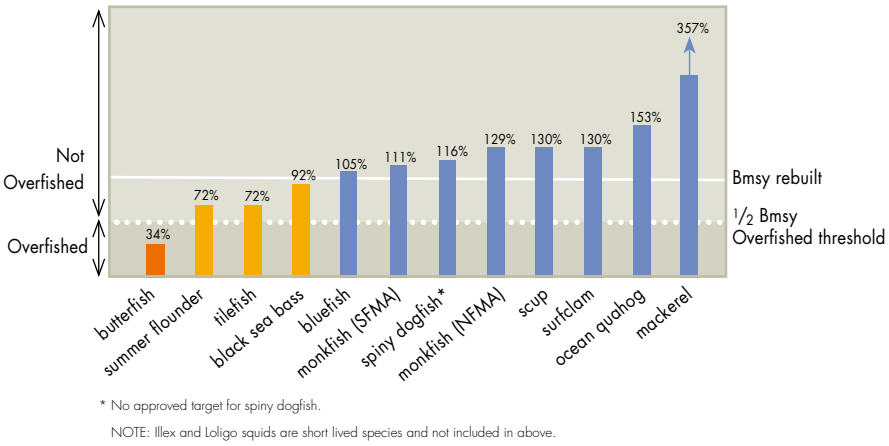


Obtaining Critical Assessment Data

One of the biggest challenges for the Mid-Atlantic Council is the limited availability of data that support management decisions. Commercial fisheries sea sampling data and data from vessel trip reports are available but very limited, making it difficult to develop definitive or reliable conclusions. Lack of discard data also is a problem in the commercial fisheries. Similarly, data from recreational fisheries are also limited, and the Council is working closely with the National Marine Fisheries Service to collect adequate data through implementation of the Marine Recreational Information Program. There is a great need for improved estimates of discards for all fisheries.

To address these data gaps, the Mid-Atlantic Council developed a Research Set-Aside Program to encourage data collection and provide an opportunity for cooperative research with the fishing industry. The Research Set-Aside Program, which was implemented in 2000, allows for the establishment of set-aside quota which is removed from the annual total allowable landings each year. The quota that is set-aside is then available to applicants who successfully compete in the grant program. The funds generated from the sale of the individual quota set-asides are used to conduct approved research projects. The research conducted under the Research Set-aside Program has enhanced the effectiveness of the Council's conservation and management programs.

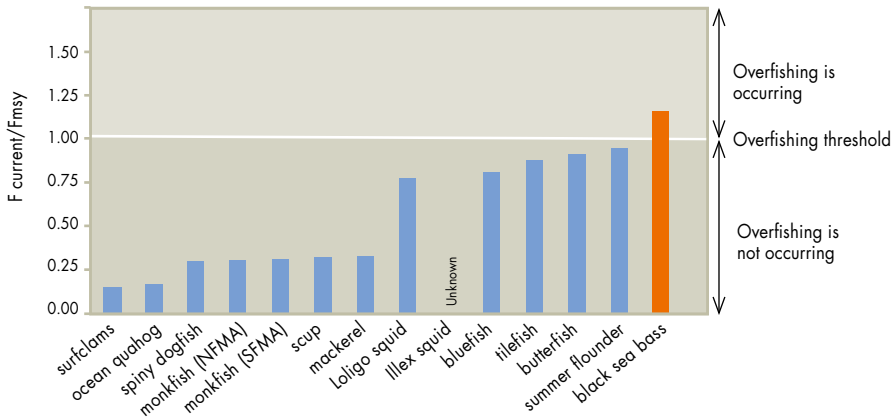
Stock Size Relative to Biological Reference Points



* No approved target for spiny dogfish.

NOTE: Illex and Loligo squids are short lived species and not included in above.

Fishing Mortality Ratios for MAFMC Managed Stocks



The graphs above show the current status of the Mid-Atlantic stocks.

Dino Barone

South Atlantic Fishery Management Council

From the Outer Banks of North Carolina to the tropical waters off the Florida Keys, the fisheries managed by the South Atlantic Fishery Management Council are as diverse as the creatures and habitats that stretch along more than 1,100 miles of coastline. Grouper lurk around coral-covered ledges in waters up to 600 feet deep, brightly colored dolphin fish (mahi mahi) skim the ocean surface in Gulf Stream currents, and spiny lobster poke their antennae from under tropical corals. The area includes Islamorada, Florida, boasting itself the "Sportfishing Capital of the World", and many historical fishing communities with diverse commercial fleets scattered along the coasts of the Carolinas, Georgia and eastern Florida.

Management plans have been developed by the Council for the Snapper & Grouper complex (reef fish), Coastal Migratory Pelagics (mackerels), coral, golden crab, shrimp, sargassum, and spiny lobster. In addition, the South Atlantic Council is the lead council for the management of dolphin (mahi mahi) and wahoo along the Atlantic coast.

South Atlantic Fishery Management Council
4055 Faber Place Drive, Suite 201
North Charleston, SC 29405
Phone (843) 571-4366
Toll free (866) SAFMC-10
Fax (843) 769-4520
Website: www.safmc.net

Opportunities & Challenges

As the human population continues to grow in the southeast, so does the pressure on the region's marine resources. The total number of anglers in the South Atlantic increased by 55% between 1997 and 2006. This trend is expected to continue. In 2006, the South Atlantic region had 2.6 million marine recreational anglers who took a total of 24 million fishing trips. This increase in fishing effort creates a serious challenge for the Council as it works to provide sustainable fisheries.

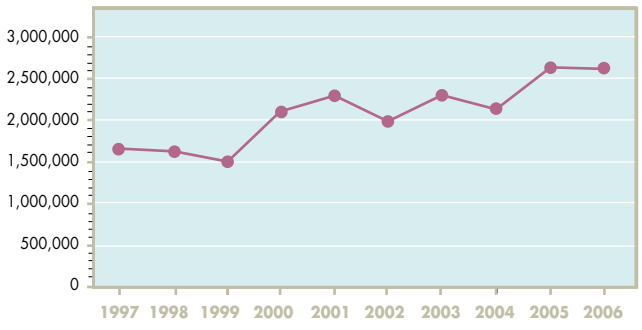
Providing Sustainable Fisheries

Of the eight fisheries the Council manages, seven are being managed at sustainable levels and only one, the snapper grouper fishery, has species that are experiencing overfishing. The mixed-species nature of this fishery offers the greatest challenge for successful management. Many of the 73 species included in the management unit are long-lived, slow to reproduce, and often don't survive the trauma of being caught from great depths. Species such as red snapper may live to be 54 years old while others like gag grouper have complex life cycles, changing sex as they age. The Council is addressing overfishing for species in the snapper grouper complex and rebuilding stocks to sustainable levels under current and proposed management measures.

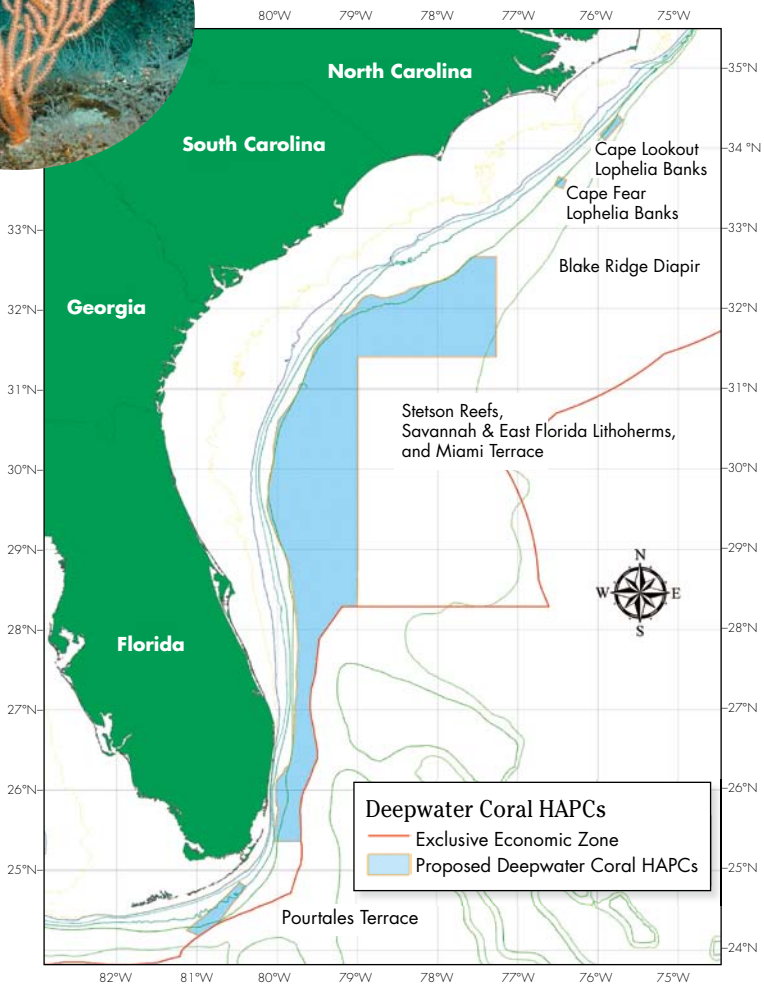
Allocating Limited Resources

The Council faces increasing challenges in dealing with allocation. The growing human population has led to an increase in the number of recreational anglers while competition from imports, decreased waterfront accessibility and other factors have led to a reduction in commercial fishing operations. For some fish stocks, reductions in harvest are necessary to meet mandated rebuilding plans. The requirement that Councils develop annual catch limits may lead to further reductions. The Council is considering three sectors (commercial, recreational and for-hire) when dividing a limited amount of fish. As the Council reviews its options, additional economic and social data and analyses are needed to help assess the cumulative impacts of regulations and aid in making fair and equitable allocations.

Number of Recreational Participants 1997-2006



Source: NOAA Fisheries Marine Recreational Information Program, 2009



Designation of Coral Habitat Areas of Particular Concern will aid in the protection of the largest contiguous distribution of deepwater coral ecosystems in the world.

Coral photo: Harbor Branch Oceanographic Institution

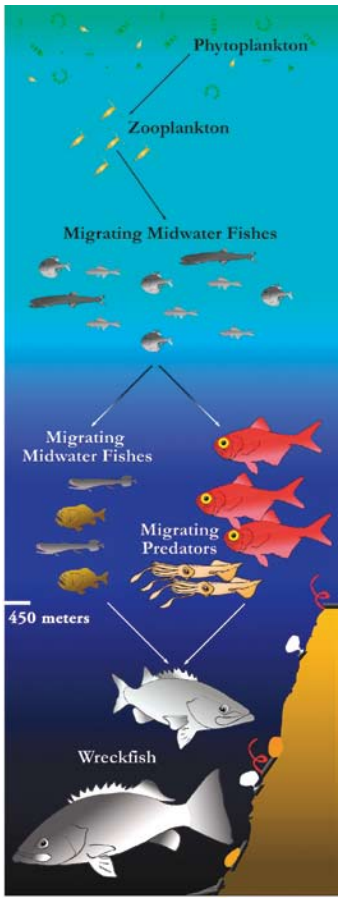
Protecting Deepwater Corals

The Council is working to conserve and manage deepwater corals, and protecting what is currently thought to be the largest contiguous distribution of deepwater coral ecosystems in the world. The Council is considering designating over 23,000 square miles as Coral Habitat Areas of Particular Concern, protecting these areas from bottom-damaging fishing practices. The Council supported production of the award-winning film, *Revealing the Deep,* highlighting the importance of deepwater coral ecosystems and current research being conducted off the southeastern coast of the United States. Copies of the DVD are available through the Council's office.

Establishing Marine Protected Areas

The Council established a series of eight deepwater marine protected areas along the southeastern coast from North Carolina to southeastern Florida. These marine protected areas, ranging in size from 8 to 150 square nautical miles, are designed as a management tool to help protect deepwater snapper grouper species and their habitats. The marine protected areas are the result of a sixteen-year deliberative and open public process by the Council, and were implemented in early 2009. Trolling for pelagic species such as tuna, dolphin, and mackerel is allowed in the areas, but bottom fishing for snapper grouper species is prohibited. This series of marine protected areas is the first to be established along the South Atlantic coast, and were developed based on sound science coupled with a "bottom up" approach using public input in the open process inherent to the regional fishery management councils.

Robert Cardin



AFS

Ensuring Quality Stock Assessments

The South Atlantic Council is responsible for administering the South East Data, Assessment, and Review (SEDAR) stock assessment program. SEDAR is a cooperative fishery management process initiated to improve the quality and reliability of assessments of fishery resources in the southeastern United States. SEDAR oversight is provided by the South Atlantic, Gulf of Mexico, and US Caribbean Regional Fishery Management Councils in coordination with NOAA Fisheries and the Atlantic and Gulf Interstate Fishery Commissions. The Council works with SEDAR to improve the quality of stock assessments, improve the quantitative basis of fishery management actions, and increase the relevance of research and monitoring programs in the Southeast Region. Due to the limited number of stock assessments that can be completed on a yearly basis, along with data limitations for many stocks, the Council will be challenged to establish appropriate annual catch limits for some stocks.

Expanding an Ecosystem-based Approach

The Council has developed a Fishery Ecosystem Plan that describes the South Atlantic ecosystem and its fisheries. It serves as a source document that includes information on biological, ecological, social, and economic information for fisheries in the South Atlantic ecosystem. As the Council expands its ecosystem-based approach to management, the use of "place-based" management through designation of Habitat Areas of Particular Concern, marine protected areas, and other managed areas will become more important. The greatest challenge to implementing ecosystem-based management in the southeast region is a scarcity of data and lack of knowledge of basic ecosystem functions.

Improving Stakeholder Participation

Public participation is the foundation of the Council management process. The South Atlantic Council has 14 advisory panels that include fishermen, representatives from environmental groups, business owners and other stakeholders familiar with fisheries issues. Panels provide valuable information at the "grass roots" level for the Council to consider in making management decisions. Public hearings and scoping meetings are also a key to public input. Recently, the South Atlantic Council has developed a new approach that uses an informal "round table" format, where fishermen and other participants can meet with Council staff to discuss issues and receive additional information. Participants may then provide their comments to Council representatives attending the meeting. The informal environment facilitates a more personal exchange of information and results in a better informed public.

NOAA Fisheries

© Wolcott Henry 2005/Marine Photobank

Kay Wilson/Indigo Dive Academy/Marine Photobank

Caribbean Fishery Management Council

The Caribbean Fishery Management Council is charged with managing and conserving fishery resources in the US portion of the Caribbean. The Caribbean Council is unique in being the only regional council that does not include one of the fifty states in the Union in its management area. Its area of jurisdiction extends from nine nautical miles off the state waters of Puerto Rico, and three nautical miles off the territorial waters of the US Virgin Islands (St. Thomas/St. John and St. Croix).

Fisheries in the US Caribbean region include commercial and recreational fisheries targeting spiny lobsters, queen conch and other mollusks, and numerous species of fish associated with coral reefs. Commercial fisheries target these species using hooks, nets, traps, and diving gear. Recreational fisheries also target these same species using rod and reel and scuba dive gear. Over 230,000 recreational fishermen make more than 1.4 million fishing trips in the area each year. Some anglers fish from shore, while others fish from boats, of which are there are a large number (over 53,000 recreational boats) in Puerto Rico and the US Virgin Islands. To date, the Council has developed fishery management plans for spiny lobster, reef fish, corals, and queen conch.

Caribbean Fishery Management Council
268 Muñoz Rivera Avenue, Suite 1108
San Juan, Puerto Rico 00918-1920
Phone: (787) 766-5927
Fax: (787) 766-6239
www.caribbeanfmc.com

Chuck Hamel

Opportunities & Challenges

Managing for Sustainable and Viable Fisheries

The Council adopted a fishery management plan for spiny lobster in 1981. The plan controls the harvest level of spiny lobster to stop overfishing, ensure economic stability, improve data and understanding of the resource through biological and socioeconomic research, and reduce gear losses, destruction of habitat, death, and injuries to unharvested immature and adult lobsters. Management measures include a minimum size limit of 3.5 inches or greater carapace shell length, gear restrictions, and a prohibition on retaining egg-bearing female lobsters. Despite these measures, the landings, catch rates, and relative abundance of spiny lobsters have declined since the beginning of the fishery. The Council is working to improve enforcement and data collection for this fishery to improve the condition of the lobster resource in the region.

The shallow water reef fish management plan was implemented in 1985 and includes over 140 species of commonly landed reef fish. Of this group, the grouper and snapper fisheries are the most important fisheries in the region. The Council has used seasonal area closures to protect these species when and where they are most vulnerable during their spawning aggregations. The complexity of the reef fish fisheries, together with the high diversity of fish species caught on every trip, presents a difficult problem for scientists and managers. The Council will be challenged to develop annual catch limits, as required by the Magnuson-Stevens Act, for these species given limited catch, bycatch, and abundance information.

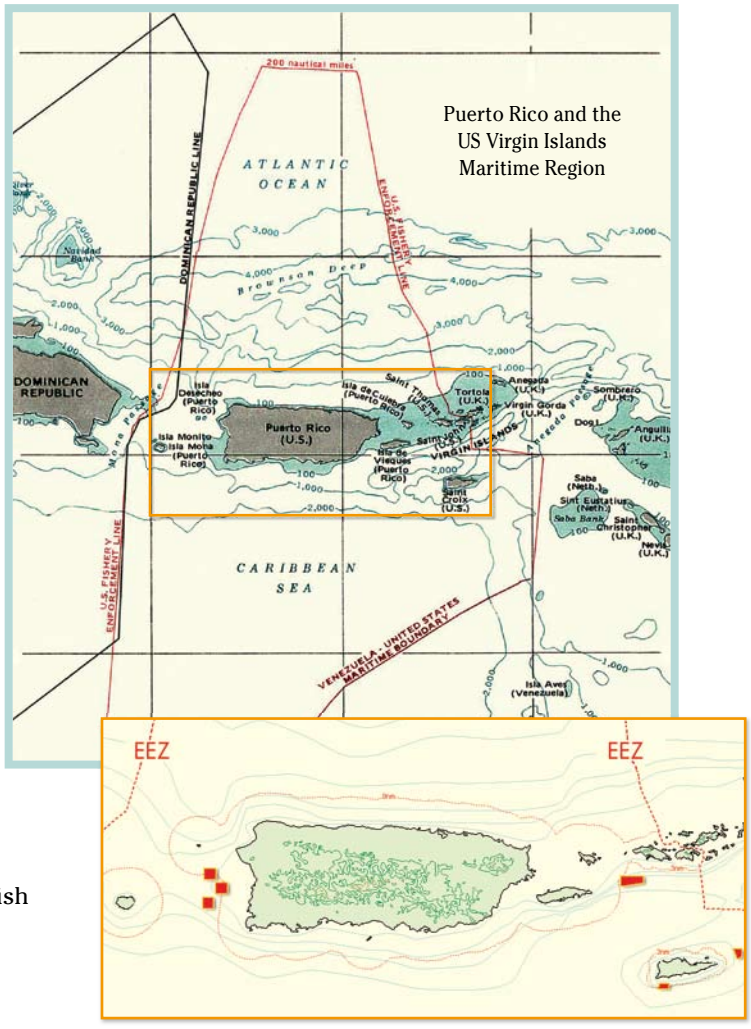
The Council's queen conch management plan includes management measures to protect egg-laying conch in both State and Federal waters, as well as minimum size limits on conch that can be harvested. Conches are commercially and recreationally harvested by divers for their meat and attractive shells. Landings in Puerto Rico and the US Virgin Islands have fluctuated over the years, with increased catches in the 1990s. Catches of queen conch exceeded 300,000 pounds by 2000. The Council is working to stop overharvesting of queen conch and rebuild the species throughout its range.

The Council has also developed strict regulations to protect corals and coral reefs. Due to the critically important role of coral reefs in the sustainability of fish resources, and the increasing demand of reef fish organisms for the aquarium trade, the Council has prohibited all take of corals, live-rock, butterfly fish, seahorses, and juvenile red hind and mutton snapper in the region.

Dr. Anthony R. Picciolo, NOAA NODC

Chuck Hamel

Chuck Hamel



Marine reserves established by the CFMC to protect reefs and associated species

Coordinating International Management Initiatives

Many species and stocks managed by the Caribbean Council are distributed throughout the Caribbean. Fish move freely between the US Caribbean and international waters, potentially creating conservation problems for those stocks (such as queen conch) that depend on foreign waters for a particular life stage. This presents a serious challenge to effective fishery management of these resources in the region.

The Caribbean Council has taken the opportunity and initiative to work closely with other countries in efforts to manage the fishery resources on a sustainable basis. The Council has spear-headed several international programs, including the International Initiative for Queen Conch and the Nassau Grouper Initiative, whereby more than twenty Caribbean nations work together to conserve pan-Caribbean fish resources.

Through the Queen Conch Initiative, the Council has helped Caribbean countries develop better management strategies for the conservation of queen conch resources. The queen conch fishery is experiencing overfishing in many areas, and more restrictive measure, such as federal closures to the harvesting of queen conch and/or closed seasons have been imposed by the United States and more than 20 participant countries to manage the fishery on a sustainable basis.

The spiny lobster fishery is another pan-Caribbean resource for which the Caribbean Council coordinates with other fishery management agencies and Caribbean countries to stop the downward trend of lobsters observed in some areas. The most recent adoption of a minimum size for spiny lobster imports into the United States is expected to help alleviate this problem given the US is the biggest buyer of Caribbean spiny lobster. The action was a coordinated effort with the Gulf and South Atlantic Councils, following discussions with other countries, and meetings with the Western Central Atlantic Fishery Commission of the United Nations Food and Agricultural Organization.

International efforts to conserve Nassau grouper have been developed through a Nassau Grouper Initiative, which is an effort by the Caribbean Council and the Western Central Atlantic Fishery Commission to rebuild this species in those areas where the fishery is considered overfished. Although the fishery is still viable in some countries, the tendency is to deplete the grouper stock to very low levels unless measures, such as closures to protect the spawning aggregations, are taken to control the harvest of this resource. The Council will continue to actively participate in this effort to rebuild Nassau grouper.

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Gulf of Mexico Fishery Management Council

The Gulf of Mexico Fishery Management Council manages fisheries in the federal waters of the Gulf of Mexico for reef fish, coastal pelagic species, spiny lobster, stone crab, corals, red drum, and shrimp. The commercial shrimp fishery, in particular, is one of the nation's largest and most valuable fisheries with thousands of people employed in the fishery. In addition to managing traditional fisheries, the Council recently developed and submitted a fishery management plan to regulate offshore aquaculture in the region. The Gulf region includes federal waters off the coasts of Alabama, Louisiana, Mississippi, Texas, and western Florida.

Gulf of Mexico Fishery Management Council
2203 N. Lois Avenue, Suite 1100
Tampa, FL 33607
Phone: (813) 348-1630
Toll Free: (888) 833-1844
Fax: (813) 348-1711
Website: www.gulfcouncil.org

Gulf of Mexico
Fishery Management Council

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Opportunities & Challenges

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Balancing Social and Economic Goals

Commercial and recreational fisheries are very important in the Gulf region. In 2006, for example, commercial fishermen landed 1.3 billion pounds of fish, from which $674 million was paid to fishermen. In the same year, 6.2 million recreational anglers made 23.9 million fishing trips. Fish and fisheries are important to the economic and social health and well-being of many communities in the region. The Council is challenged with balancing these competing uses of marine resources with varying social and economic goals, while at the same time providing for sustainable fisheries. To address these challenges, the Council thoroughly assesses potential costs and benefits of proposed management changes to fishermen and fishing communities before making a final decision.

Protecting Sensitive Habitat

The Gulf Council has used marine protected areas as an important tool for the conservation and management of the region's resources, protecting thousands of square miles of vulnerable habitat types, as well as nursery areas from fishing activities. Certain gear types also have been prohibited over large areas to reduce fishing mortality on juvenile fish and shrimp. Other areas containing sensitive benthic habitat have been identified as habitat areas of particular concern, where fishing is severely restricted. Some areas containing corals and coral reefs were considered so sensitive that the Council decided to protect them from all possible fishing impacts and prohibited all fishing in these marine reserves.

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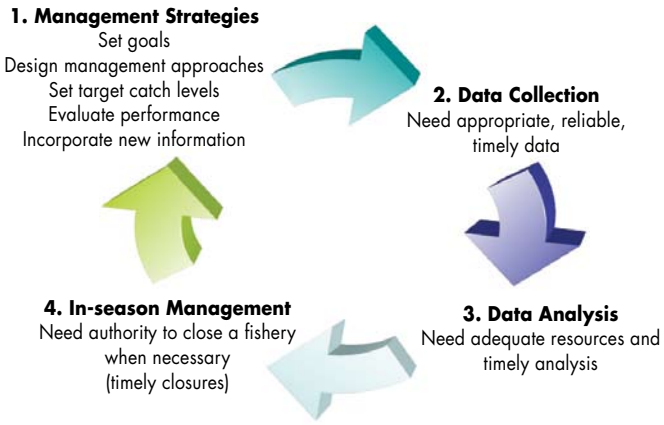
Considerations in Developing ACLs and AMs for Each Fishery



Setting Annual Catch Limits

The new provisions of the Magnuson-Stevens Act require Councils to set annual catch limits for fish stocks (populations) managed under fishery management plans. Additionally, Councils are required to prevent overfishing and rebuild stocks to levels that will support maximum sustainable yield. Annual catch limits must be established by 2010 for all fisheries where overfishing is occurring, and all other fisheries by 2011.

The Gulf Council is challenged with establishing annual catch limits and accountability measures to ensure that overfishing does not occur. Scientists may be unable to assess the population size of particular species or determine an acceptable biological catch amount on an annual basis because of a lack of data for many stocks, and the limited number of stock assessments that can be completed in a timely fashion.

To complicate management efforts, basic fishery information is not available for some fish species in the Gulf region. These species are caught mainly as bycatch, and biological data necessary to conduct stock assessments is lacking. Without this information, it is difficult, if not impossible, to establish meaningful catch limits for some species.

Even when adequate data about a stock are available, the Gulf Council requires frequent stock assessments and assessment updates to ensure that catch limits are established at appropriate levels. Understanding stock status is critical to setting an annual catch limit that avoids overfishing. However, given existing funding levels for the Gulf Council and the National Marine Fisheries Service, additional personnel are not available to prepare and update stock assessments annually. Having adequate and timely stock assessments will remain a challenge for fisheries managers who are required to keep catches within specified limits and prevent overfishing.

Despite these challenges, the Gulf Council has already established annual catch limits and accountability measures for managed stocks that are susceptible to overfishing. Catch limits have been established for greater amberjack, gray triggerfish, and red snapper. The Council has also adopted catch limits for gag grouper that are expected to be implemented in 2009. The Council is currently developing an amendment to implement catch limits and accountability measures for the remainder of the stocks it manages.

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Establishing Limited Access Privilege Programs

The Magnuson-Stevens Act encourages the development of limited access privilege programs for fisheries and provides specific requirements for the implementation of such programs. Three types of limited access privilege programs authorized in the Magnuson-Stevens Act include individual fishing quotas, community quotas, and quotas held by regional fishery associations. Limited access privilege programs pose a challenge to fishery managers, both in terms of program design and in garnering stakeholder acceptance. Overcoming these challenges provides an excellent opportunity for Councils to address problems resulting from overcapacity and the race to fish.

By assigning a portion of the catch limit to individuals, communities, or associations, limited access privilege programs can provide many positive benefits to fishermen, managers, and consumers. Limited access privilege programs allow fishermen more flexibility in terms of how and when they can fish during the year, increasing efficiency and safety at sea. For fishery managers, limited access privilege programs not only provide a flexible management approach, but also help to improve resource conservation because combined catches of all quota holders are generally at or below the commercial total allowable catch. Enforcement and monitoring is enhanced with the increased accountability of individual fishermen. Overall, limited access privilege programs result in more efficient, more profitable, and more sustainable fisheries.

In 2007, the Gulf Council implemented a limited access program for the commercial red snapper fishery to address problems resulting from overcapacity and the derby nature of the fishery. Under this program, an individual or entity is given the privilege to harvest a percentage of the commercial quota. The program has been very successful to date; fishing capacity has been reduced, the race to catch fish has ended, and fishermen are operating more efficiently. The Gulf Council recently adopted a similar program for the commercial grouper and tilefish fishery, and implementation of the program is expected in 2010.

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North Pacific Fishery Management Council
605 West Fourth Avenue, Suite 306
Anchorage, Alaska 99501-2252
Phone: (907) 271-2809
Fax: (907) 271-2817
Website: www.alaskafisheries.noaa.gov/npfmc

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384
Phone: (503) 820-2280
Toll Free: (866) 806-7204
Fax: (503) 820-2299
Website: www.pcouncil.org

Western Pacific Regional Fishery Management Council
1164 Bishop Street, 1400
Honolulu, Hawaii 96813
Phone: (808) 522-8220
Fax: (808) 522-8226
Website: www.wpcouncil.org

New England Fishery Management Council
50 Water Street, Mill 2
Newburyport, MA 01950
Phone: (978) 465-0492
Fax: (978) 465-3116
Website: www.nefmc.org

Mid-Atlantic Fishery Management Council
Suite 2115 Federal Bldg.
300 S. New Street
Dover, DE 19904-6726
Phone: (302) 674-2331
Toll Free: (877) 446-2362
Fax: (302) 674-5399
Website: www.mafmc.org

South Atlantic Fishery Management Council
4055 Faber Place Drive, Suite 201
North Charleston, SC 29405
Phone: (843) 571-4366
Toll free: (866) SAFMC-10
Fax: (843) 769-4520
Website: www.safmc.net

Caribbean Fishery Management Council
268 Muñoz Rivera Avenue, Suite 1108
San Juan, Puerto Rico 00918-1920
Phone: (787) 766-5927
Fax: (787) 766-6239
Website: www.caribbeanfmc.com

Gulf of Mexico Fishery Management Council
2203 N. Lois Avenue, Suite 1100
Tampa, FL 33607
Phone: (813) 348-1630
Toll Free: (888) 833-1844
Fax: (813) 348-1711
Website: www.gulfcouncil.org

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