



# Backgrounder: Highly Migratory Species

## What are Highly Migratory Species?

The term “highly migratory species” (HMS) derives from Article 64 of the United Nations Convention on the Law of the Sea. In general, these species have a wide geographic distribution, both inside and outside countries’ 200-mile zones, and undertake migrations of significant but variable distances across oceans for feeding or reproduction. They are pelagic species, which means they do not live near the sea floor, and mostly live in the open ocean, although they may spend part of their life cycle in nearshore waters. They are harvested by U.S. commercial and recreational fishers and by foreign fishing fleets. Only a small fraction of the total harvest is taken within U.S. waters.

The HMS Fishery Management Plan (FMP) authorizes the Council to actively manage the following species:

- Tunas: north Pacific albacore, yellowfin, bigeye, skipjack, and northern bluefin
- Sharks: common thresher, pelagic thresher, bigeye thresher, shortfin mako, blue
- Billfish/swordfish: striped marlin, Pacific swordfish
- Other: dorado (also known as dolphinfish and mahi-mahi)

Under the FMP, the Council monitors other species for informational purposes, and some species -- including great white sharks, megamouth sharks, basking sharks, Pacific halibut and Pacific salmon -- are designated as prohibited. If fishers targeting highly migratory species catch these species, they must release them immediately.

## The Fishery and Gear

Except for the swordfish drift gillnet fishery off California, highly migratory species fisheries are among the few remaining open access fisheries on the West Coast. However, some members of the fishing industry are concerned that reductions in other fisheries (like groundfish) could push more people into HMS fisheries, increasing fishing pressure.

As a result of these concerns, the Council may consider developing a limited entry program to control excess capacity. The Council adopted a control date of March 9, 2000, in case a

limited entry program is needed in the future. This date was announced in the Federal Register as an advance notice to the public that a limited entry program may be adopted, and that any new entrants in the fishery after the control date may not qualify for a permit. The announcement applies to all commercial and charter fisheries for highly migratory species. Control dates are established to minimize the rush of new entrants into a fishery that often occurs when limited entry is being considered. It should be noted the FMP does not include a limited entry program, but an amendment to the plan could be developed sometime in the future to establish one.

Many different gear types are used to catch highly migratory species:

- Troll gear. Trolling involves towing lines with multiple hooks behind a vessel. Fishing lines are rigged to outriggers (trolling poles), which are deployed at about a 45 degree angle from the sea surface. Albacore are usually harvested by trollers with jigs or live bait.
- Drift gillnets. A gillnet is a panel of netting suspended vertically in the water by floats, with weights along the bottom. Fish are entangled in the net. Drift gillnet gear is anchored to a vessel, and drifts along with the current. It is usually used to target swordfish and common thresher shark. Most drift gillnets are used off California, with a small fraction being used off the Oregon coast. The drift gillnet fishery is heavily regulated by the states of California and Oregon and by the federal government. This gear is not legal in Washington. New measures to protect sea turtles from drift gillnets were put in place in August 2001.
- Harpoon. The harpoon fishery mainly targets swordfish, and mostly takes place in California. Harpoons used to be the primary method of harvesting swordfish until the drift gillnet fishery became popular in the 1980s. There are only a few vessels still using harpoons. Harpoons are not legal gear in Washington.
- Pelagic longline. Pelagic longline gear consists of a main horizontal line that has shorter lines with baited hooks attached to it. The gear is used at various depths and at different times of day, depending on the species being targeted. Longliners from Hawaii currently target swordfish and tuna on the high seas. However, the FMP prohibits West Coast longliners from fishing in the EEZ or targeting swordfish anywhere, due to concerns about the take of endangered sea turtles. Hawaii longliners operate under a regulatory framework mandating gear modifications and operating procedures, including limits on the number of sets they may make, to reduce the take of sea turtles when targeting swordfish. If a similar framework were implemented for West Coast vessels they too could target swordfish.
- Coastal purse seine. A purse seine is an encircling net that is closed by means of a purse line threaded through rings on the bottom of the net. This gear is ef-



*Bluefin tuna (NOAA)*

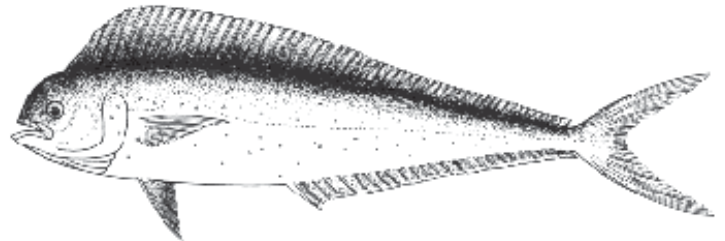
fective in catching schooled tunas. “Coastal” purse seiners are smaller vessels that fish close to the California shore. They mainly harvest coastal pelagic species (sardines, anchovies, mackerel), but they also fish for bluefin and other tunas when they are available.

- Large purse seine. Large purse seine gear is used in major fisheries in the eastern tropical Pacific and the central and western Pacific. This fishery is monitored by the Inter-American Tropical Tuna Commission, the Western and Central Pacific Fisheries Commission, and the National Marine Fisheries Service (in the U.S.). Between 2000 and 2007, the number of U.S. purse seiners fishing in the Western and Central Pacific declined from 33 to 13. However, the U.S. presence subsequently rebounded, with 36 active U.S. seiners in the western Pacific ocean in 2011. Most of the catch is landed in American Samoa; less than 1% is landed on the U.S. West Coast.
- Recreational fisheries. The recreational fisheries for highly migratory species consist of private vessels and charter vessels using hook-and-line gear. In California, both private boats and a larger charterboat fleet fish for tunas, dorado, billfish and sharks. Albacore tuna are a seasonally important recreational target off of Oregon and Washington.

## Fishery Management Plan

National Marine Fisheries Service (NMFS) partially approved the fishery management plan for West Coast highly migratory species fisheries on February 4, 2004. NMFS disapproved provisions that would have allowed targeting swordfish by West Coast longline vessels east of the 150° W. longitude. Despite this limitation, there are several advantages to having an FMP for these species. The FMP:

- allows the Council to provide advice to NMFS and the Department of State, so that West Coast interests are represented in international negotiations and decision-making.
- increases public awareness about West Coast HMS fishery issues.
- facilitates greater public involvement in managing HMS fisheries.
- helps garner congressional support to the Council and NMFS for the study and management of HMS fisheries.



*Dolphinfish (mahi-mahi)*

The FMP is a “framework” plan, which means it includes some fixed elements as well as a process for creating or changing regulations without amending the plan.

The biggest change for harvesters stemming from implementation of the FMP is new monitoring requirements, which came into effect on April 11, 2005. As of that date commercial fishermen must obtain a permit from NMFS to fish for HMS and maintain logbooks documenting their catch.

(Current state-mandated logbooks meet this requirement). Recreational charter vessels must also keep logbooks. If requested by NMFS, a vessel must carry a fishery observer. These measures are intended to improve data collection about HMS catches.

The FMP requires the Highly Migratory Species Management Team to prepare a Stock Assessment and Fishery Evaluation (SAFE) Report each year, which provides information about the status of HMS stocks and information about HMS fisheries.

## **The Management Context**

Since highly migratory species move throughout large areas of the Pacific and are fished by many nations and gear types, management by the United States alone is not enough to ensure that harvests are sustainable in the long term.

The U.S. is a member of the Inter-American Tropical Tuna Commission (IATTC), which is responsible for the conservation and management of fisheries for tunas and other species taken by tuna-fishing vessels in the eastern Pacific Ocean. The U.S. is also a member of the Western and Central Pacific Fisheries Commission (WCPFC), which plays a parallel role in the western and central Pacific (generally, west of 150° W. longitude).

The FMP framework can also provide a mechanism to meet U.S. responsibilities under the United Nations Agreement on the Conservation and Management of Straddling Fish Stocks and High Migratory Fish Stocks (known as the UNIA). The UNIA interprets the duties of nations to cooperate in conserving and managing fisheries resources, and dictates that coastal states may not adopt measures that undermine the effectiveness of regional measures to achieve conservation of the stocks. The U.S. is also a member of the Food and Agriculture Organization of the United Nations (FAO), which has implications for HMS management. In 1995 the FAO's Committee on Fisheries developed a Code of Conduct for Responsible Fisheries, which more than 170 member countries, including the U.S., have adopted. Pursuant to this Code of Conduct, the U.S. has adopted the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas and four International Plans of Action (IPOAs):

- International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries
- International Plan of Action for the Conservation and Management of Sharks
- International Plan of Action for the Management of Fishing Capacity
- International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing

In turn, the U.S. has developed national plans of action to carry out the objectives of these international plans. The FMP provides a way to support these national plans of action. In fact, the seabird avoidance measures in the FMP are consistent with the national plan of action on seabirds.

## Hot Topics

*Overfishing.* Both bigeye and yellowfin tuna in the Pacific have been formally declared subject to overfishing by NMFS. Consistent with the Magnuson-Stevens Act, the Council responded by proposing measures to end overfishing and rebuild the stock. Any response is complicated by the wide-ranging nature of the fish and the many nations, states, and regions involved. Effective management requires a great deal of cooperation among these entities. Therefore, the U.S. cannot rebuild HMS stocks alone. If the U.S. acts alone, U.S. fishers could be penalized by having to comply with rules that other nations do not adhere to, and there would be little or no benefit to the fish stocks. Thus the Council response focuses on ongoing interactions with the IATTC and the WCPFC to develop cooperative ways to rebuild overfished stocks. There are also concerns about the status of North Pacific albacore tuna, bluefin tuna, and striped marlin. In addition to adopting a series of measures to address bigeye and yellowfin overfishing, in 2004 both the IATTC and WCPFC adopted conservation measures for albacore. The WCPFC adopted a conservation measure for bluefin tuna in 2009.

*Incidental take of sea turtles.* In order to protect sea turtles, NMFS disapproved portions of the FMP that would have permitted targeting swordfish by West Coast longline vessels outside the West Coast EEZ. To catch swordfish, longlines are set at relatively shallow depths where threatened and endangered sea turtles are more likely to be encountered. The California drift gillnet fishery is also subject to restrictions to reduce interactions with endangered leatherback sea turtles. A large are of the West Coast EEZ, from Monterey, California to the mid-Oregon coast is seasonally closed to this fishery. Important leatherback foraging areas are thought to occur in the southern portion of the area, around Monterey.

*Sharks.* Sharks are especially vulnerable to overfishing because of their biology and life history, and the potential local depletion is of special concern. The West Coast states have taken measures to protect sharks. A federal law prohibits “shark finning,” where the fins are removed and the carcass is discarded. Including pelagic shark species in the FMP enables catches to be monitored and managed. The FMP also designates great white, megamouth, and basking sharks as prohibited species, meaning if these species are caught they may not be retained. This discourages intentional catch and, in cases where the shark survives the interaction, reduces fishing mortality.

*Incomplete data.* Improved data collection is needed in order to effectively manage highly migratory species, both in the commercial and recreational fisheries. The FMP includes provisions to increase and improve monitoring and reporting in HMS fisheries.

## How Do I Get Involved?

- Read the Fishery Management Plan (<http://www.pcouncil.org/highly-migratory-species/fishery-management-plan-and-amendments/>)
- Contact Kit Dahl, staff officer for highly migratory species, at [Kit.Dahl@noaa.gov](mailto:Kit.Dahl@noaa.gov) or (503) 820-2280 ext. 422 or toll free 1-866-806-7204
- Attend a Council meeting or subcommittee meeting.