



FACT SHEET: HIGHLY MIGRATORY SPECIES

“Highly migratory species” (HMS) include tuna, some shark species, and billfish—species that range widely through the ocean, often crossing international borders. These pelagic species live in the water of the open ocean, although they may spend part of their life cycle in nearshore waters.

HMS 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 following species are managed under the Council’s highly migratory species fishery management plan:

ADVISORY BODIES:

- ◆ HMS ADVISORY SUBPANEL
- ◆ HMS MANAGEMENT TEAM

Tunas: north Pacific albacore, yellowfin, bigeye, skipjack, and Pacific bluefin

Sharks: common thresher, shortfin mako, blue

Billfish/swordfish: striped marlin, Pacific swordfish

Other: dorado (also known as dolphinfish and mahi-mahi)

Some species (such as pelagic thresher and bigeye thresher) are monitored for informational purposes. Others, including great white sharks, megamouth sharks, basking sharks, Pacific halibut, and Pacific salmon, are prohibited. These species must be released immediately by anyone accidentally catching them while targeting other species.

THE FISHERY AND GEAR

Several gear types are used to catch highly migratory species:

Vessels with **troll gear** and **bait boats** target albacore tuna off the west coast. On troll vessels, 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. Bait boats release live bait into the water to encourage feeding and then use pole and line to catch the albacore.

A **drift 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. Drift gillnets are currently used off California.

Deep-set buoy gear is currently being tested with exempted fishing permits. This gear includes “standard buoy gear” and “linked buoy gear.” (For details, see page 7 of <http://tinyurl.com/yawm7h9e>). This type of gear could supplement other gears used to 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 effective 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 and managed by the Inter-American Tropical Tuna Commission (IATTC), the Western and Central Pacific Fisheries Commission (WCPFC), and the National Marine Fisheries Service (NMFS). There are about 40 U.S. large-scale tuna purse seiners on the IATTC and WCPFC vessel registries.

Swordfish are also caught with **harpoons** (by only a few West Coast fishermen) and **pelagic longliners** (only Hawaii-permitted vessels). Pelagic longliners also target bigeye and yelloweye tuna.

Recreational fisheries. Recreational fisheries for HMS 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.

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Albacore tuna are a seasonally important recreational target off of Oregon and Washington. Charter vessels, mainly from San Diego, also fish in Mexico's waters under license.

DOMESTIC MANAGEMENT OF HMS FISHERIES

Any commercial vessel landing HMS on the West Coast must obtain a Federal permit from NMFS. Both commercial and recreational charter boat harvesters of HMS species must keep logbooks documenting their catch. Some are required to carry fishery observers. These measures are intended to improve data about HMS catches.

Each year, the Highly Migratory Species Management Team prepares a Stock Assessment and Fishery Evaluation Report that provides information on the status of HMS stocks and fisheries (<http://tinyurl.com/yck9hdnh>).

INTERNATIONAL MANAGEMENT

Date	Highly migratory species management action
June	The Council reviews proposals for exempted fishing permits (EFPs) and decides whether they merit further review at the next meeting.
September in even-numbered years	The Council finalizes its recommendations on any EFP proposals it considered in June. The Council also considers the status of the HMS fisheries and, as appropriate, proposes adjustments to the estimates used to determine the status of HMS stocks. If necessary, the Council directs the Highly Migratory Species Management Team (HMSMT) to prepare draft regulatory analysis to implement revised estimates of reference point values, ACLs, or other harvest objectives and/or management measures.
November in even-numbered years	If necessary, the Council directs the HMSMT to prepare a draft regulatory analysis to implement revised estimates of reference point values, ACLs, or other harvest objectives and/or management measures. The Council adopts for public review any proposed management measures.
March in even-numbered years	The Council adopts final recommendations to NMFS, the Department of State, and Congress for international measures to end overfishing and/or rebuild stocks and proposed regulations necessary for domestic fishery management.

Since HMS stocks move throughout large areas of the Pacific and are fished by many nations and gear types, management by the U.S. alone is not enough to ensure that harvests are sustainable.

The U.S. is a member of the 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 WCPFC, which plays a parallel role in the western and central Pacific (generally, west of 150° W. Longitude).

The fishery management plan provides a mechanism to meet U.S. responsibilities under the United Nations Agreement on the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. The U.S. is also a member of the Food and Agriculture Organization of the United Nations, which has developed a Code of Conduct for

Responsible Fisheries. As such, the U.S. is required to comply with international measures to reduce incidental catch of seabirds in longline fisheries, to conserve and manage sharks, to manage fishing capacity, and to prevent, deter, and eliminate illegal, unreported, and unregulated fishing. In turn, the U.S. has developed national plans of action to meet these requirements.

MANAGEMENT ISSUES

West Coast swordfish fishery. The Council has outlined goals and objectives to reduce finfish bycatch and incidental take of protected species in fisheries targeting swordfish off the West Coast. (Protected species affected by swordfish fisheries include some species of sea turtles, marine mammals, and seabirds.) While reducing these impacts, the Council wants to sustain an economically healthy fishery that can supply locally-caught fish. Measures to reduce bycatch in the California large-mesh drift gillnet fishery have been a focus of Council actions, but the Council also wants to encourage the use of other gear types with lower bycatch. Council measures include creating a Federal limited entry permit for this fishery. Furthermore, the California state assembly has passed legislation

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to phase out the fishery pending appropriations to buy out existing state permits.

Vessels fishing out of Hawaii, under the Western Pacific Fishery Management Council's Pelagic Species FMP, deliver more swordfish to the West Coast than other West Coast-based fisheries. Hawaii longliners operate under a regulatory framework mandating gear modifications and operating procedures to reduce the take of sea turtles when targeting swordfish. If a similar framework were implemented for West Coast vessels, Pacific Council-managed fisheries could target swordfish with this gear.

Overfishing. Special requirements in the Magnuson-Stevens Act (MSA) are triggered when an internationally-managed stock is subject to overfishing or is designated as overfished. Consistent with the MSA, the Council responds by proposing measures to end overfishing and rebuild these stocks. 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. harvesters 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 international bodies (regional fishery management organizations) to develop cooperative ways to rebuild overfished stocks.

Sharks. Sharks are especially vulnerable to overfishing because of their biology and life history. 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.

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