



FACT SHEET: HABITAT

24

HABITAT IS THE ENVIRONMENT WHERE AN ANIMAL LIVES, FEEDS, AND REPRODUCES.

Identifying fish habitat is complex because fish move through different habitats for different purposes throughout their lives. For example, certain fish might spawn in the surf zone, but live as adults in open water; or might move seasonally into different depth zones or substrate types. Fish move into different habitats for feeding, spawning, to avoid predation, and for other reasons.

The Council's involvement with habitat is primarily due to requirements contained in the essential fish habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

**ESSENTIAL FISH HABITAT IS:
THOSE WATERS AND SUBSTRATE
NECESSARY TO FISH FOR
SPAWNING, BREEDING, FEEDING,
OR GROWTH TO MATURITY.**

**THIS MAY INCLUDE AREAS THAT
WERE HISTORICALLY USED BY
FISH, LIKE A RIVER ABOVE A DAM.**

The MSA requires that regional fishery management councils describe EFH for all life cycles of each managed species in their fishery management plans, that they minimize impacts on EFH

from fishing activities, and that they identify non-fishing activities that may adversely affect EFH.

Any Federal agency whose action may adversely affect EFH is required to consult with the National Marine Fisheries Service, which will provide the agency with conservation recommendations on how to avoid or minimize those impacts. Actions that occur outside of EFH, but that might affect the habitat, must also be taken into account.

To minimize adverse effects from fishing activities, the Council may use fishing gear restrictions, time and area closures, harvest limits, and other measures to lessen adverse impacts on EFH. When doing so, the Council considers whether the fishing activity is harming the

habitat, the nature and extent of the damage, and whether management measures can be enforced. The Council also considers the long-term and short-term costs and benefits to the fishery, fishing communities, and the habitat.

In addition to identifying and describing EFH, the MSA encourages Councils to designate habitat areas of particular concern (HAPCs).

These are specific habitat areas or types that are a subset of the much larger area identified as EFH. HAPCs can be designated because they play a particularly important ecological role in a species' life cycle, or because they are especially sensitive, rare, or vulnerable.

A HABITAT AREAS OF PARTICULAR CONCERN [HAPC] IS:

A SPECIFIC HABITAT AREA OR TYPE OF HABITAT THAT PLAYS AN IMPORTANT ROLE IN A SPECIES' LIFE CYCLE, OR THAT IS SENSITIVE, RARE, OR VULNERABLE.

COUNCILS MAY RESTRICT FISHING IN HAPCS.

Designating HAPCs allows managers to focus attention on conservation priorities when considering impacts of human activities. Councils may apply fishing restrictions to designated HAPCs, and National Marine Fisheries Service (NMFS) may provide more stringent conservation recommendations when consulting on Federal non-fishing activities. The Council has identified HAPCs for groundfish and salmon, but not for coastal pelagic species or highly migratory species.

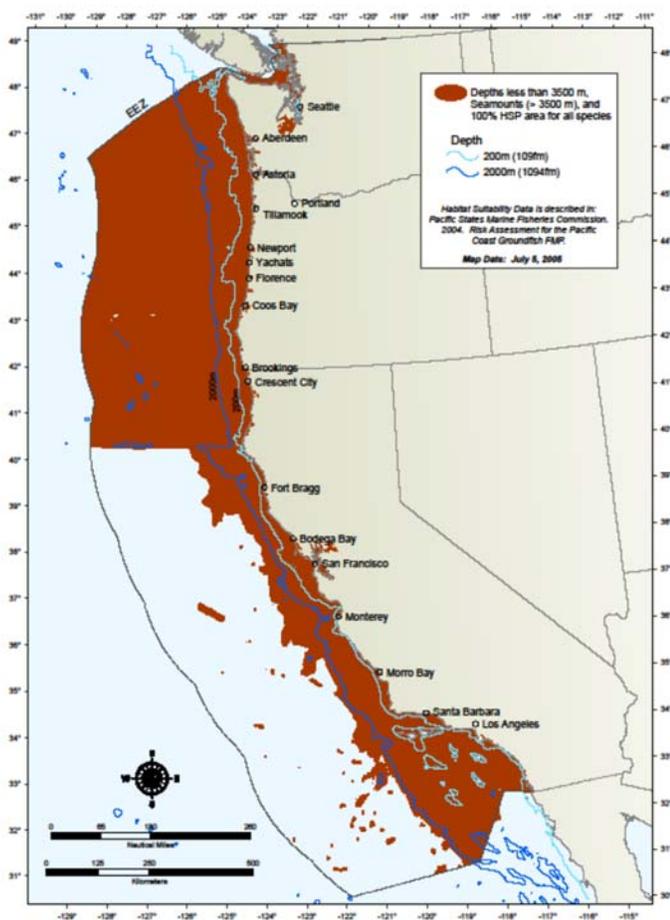
ESSENTIAL FISH HABITAT FOR GROUND FISH

The Council's groundfish fishery management plan includes more than 90 species over the entire U.S. west coast EEZ. Groundfish include many species of rockfish, sablefish, flatfish, and Pacific whiting that are often (but not exclusively) found on or near the ocean floor or other structures.

Amendment 19 to the groundfish fishery management plan defines EFH and HAPCs for groundfish.

FACT SHEET: HABITAT

Groundfish EFH is considered all waters from the high tide line (and parts of estuaries) to 3,500 meters (1,914 fathoms) in depth. (For a more technical explanation, go to <http://tinyurl.com/24kvn7> section 7.2). The figure below shows the overall extent of Pacific Coast groundfish EFH. (NEW?)



The Council identified five HAPC types: estuaries, canopy kelp, seagrass, rocky reefs, and “areas of interest.” Areas of interest can include a variety of submarine features, such as banks, seamounts, and canyons. They can also include other types of spatially-delineated areas such as all Washington State waters and the Cowcod East Conservation Area off Southern California.

The Council has also adopted measures to mitigate the adverse impacts of fishing on groundfish EFH. These include closed areas to protect sensitive habitats. There are three types of closed areas: *bottom trawl closed areas*, *bottom contact closed areas*, and a *bottom trawl footprint closure*. The 34 bottom trawl closed areas are closed to all types of bottom trawl fishing gear. The bottom trawl footprint closure closes

areas in the EEZ between 1,280 meters (700 fathoms) and 3,500 meters (1,094 fathoms), which is the outer extent of groundfish EFH. The 17 bottom contact closed areas are closed to all types of bottom contact gear intended to make contact with bottom during fishing operations, which includes fixed gear, such as longline and pots. (Changes?)

ESSENTIAL FISH HABITAT FOR COASTAL PELAGIC SPECIES

The coastal pelagic species (CPS) fishery includes four finfish (Pacific sardine, Pacific (chub) mackerel, northern anchovy, and jack mackerel), and market squid. CPS finfish generally live nearer to the surface than the sea floor. The definition of EFH for CPS is based on the temperature range where they are found, and on the geographic area where they occur at any life stage. This range varies widely according to ocean temperatures. The EFH for CPS also takes into account where these species have been found in the past, and where they may be found in the future.

The east-west boundary of CPS EFH includes all marine and estuary waters from the coasts of California, Oregon, and Washington to the limits of the EEZ (the 200-mile limit) and above the thermocline where sea surface temperatures range between 10° and 26° centigrade. (A thermocline is an area where water temperatures change rapidly, usually from colder at the bottom to warmer on top). The southern boundary is the U.S./Mexico maritime boundary. The northern boundary is more changeable and is defined as the position of the 10° C isotherm, which varies seasonally and annually. (The 10° C isotherm is a rough estimate of the lowest temperature where finfish are found, and represents their northern boundary). In years with cold winter sea surface temperatures, the 10° C isotherm during February is around 43° N latitude offshore, and slightly further south along the coast. In August, this northern boundary moves up to Canada or Alaska.

ESSENTIAL FISH HABITAT FOR SALMON

Salmon range from more than 1,000 miles inland to thousands of miles out at sea, and thus depend on a wide variety of habitats to complete their life cycle. EFH in fresh water includes all of the water bodies on the West Coast that salmon historically occupied, except the habitat above some impassable barriers. Salmon EFH also includes the entire West Coast U.S. EEZ north of Point Conception, California,

FACT SHEET: HABITAT

and the marine waters off Alaska that are designated salmon EFH by the North Pacific Fishery Management Council.

Although the waters off Canada are salmon habitat, they are also not included in the description of salmon EFH because they are outside of U.S. jurisdiction. The figure below shows the overall extent of EFH for Chinook, coho, and Puget Sound pink salmon. Sockeye salmon, chum salmon, steelhead, and pink stocks originating outside of Puget Sound are not federally managed, and thus do not have EFH established.



The Council is required to minimize the negative impacts of fishing activities on essential salmon habitat, such as the effects of fishing gear (to the extent the gear impacts habitat, or removes salmon prey species), the effect of salmon fishing on reducing nutrients in streams due to fewer salmon carcasses in the spawning grounds, the presence of marine debris and derelict gear, shellfish harvest, and recreational fishing activities. The Council may use gear restrictions, time and area closures, and harvest limits to reduce negative

impacts on salmon EFH. However, the Council has not imposed such restrictions on the salmon fishery.

The Council is also required to identify non-fishing activities that may adversely affect EFH. Thirty-one non-fishing activities and conservation measures are described in the fishery management plan.

When a Federal agency takes an action that may adversely affect salmon EFH, the agency must consult with NMFS, which will then provide conservation recommendations to the Federal action agency.

For more information about salmon EFH, see the Salmon Fishery Management Plan, Amendment 18.

ESSENTIAL FISH HABITAT FOR HIGHLY MIGRATORY SPECIES

Defining EFH for highly mobile species such as tuna, swordfish, and sharks is a challenging task. These species range widely in the ocean, both in terms of area and depth. They are usually not associated with features that are typically considered fish habitat (such as seagrass beds, rocky bottoms, or estuaries), and little is known about why highly migratory species frequent particular areas. Their habitat is defined by temperature ranges, salinity, oxygen levels, currents, shelf edges, and seamounts.

Nevertheless, these species may be affected by actions close to shore or on land, such as fishing, dredging, wastewater discharge, oil and gas exploration and production, aquaculture, water withdrawals, release of hazardous materials, and coastal development.

The fishery management plan for highly migratory species contains descriptions of their EFH. EFH for the tuna species generally encompasses Federal waters off southern California, but for albacore tuna, EFH extends north to the U.S.-Canada border. In addition, some species are nearer to shore than others, or prefer different temperature ranges. EFH for sharks varies, but is associated more with the U.S. EEZ off California that off the Pacific Northwest.

THE HABITAT COMMITTEE

The Council's Habitat Committee works with other teams and panels on habitat issues that affect Council fisheries. The committee helps develop ways to resolve habitat problems and avoid future habitat conflicts, and it makes

FACT SHEET: HABITAT

recommendations for actions that will help achieve the Council's habitat objectives. The Habitat Committee includes one member each from National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the Pacific States Marine Fisheries Commission; one at-large member; one conservation representative; four members from the four state fishery agencies; two tribal representatives; two fishing industry members, and one National Marine Sanctuaries representative.

Check the Council website for upcoming Habitat Committee meeting dates. Meetings are open to the public.

EFH CONSULTATION

Federal agencies are required to consult with NMFS when any activity proposed to be permitted, funded, or undertaken by a Federal agency may have adverse impacts on designated EFH. Only Federal actions require consultation. States are not required to consult, but if NMFS receives information on a state action that may adversely affect EFH, it is required to provide EFH conservation recommendations to the state agency. States are not required to initiate consultation with NMFS nor respond to its recommendations.

Private landowners do not need to consult with NMFS on private land activities (however, such activities may be

subject to other regulations). Only if the project is funded, permitted, or authorized by a Federal agency and the project may adversely affect EFH is consultation with NMFS required.

The EFH regulations define an adverse effect as "any impact which reduces quality and/or quantity of EFH...[and] may include direct (e.g. contamination or physical disruption), indirect (e.g. loss of prey, reduction in species' fecundity), site-specific or habitat wide impacts, including individual, cumulative, or synergistic consequences of actions."

Once NMFS learns of a Federal or state project that may have an adverse effect on EFH, NMFS is required to develop EFH Conservation Recommendations for the project. These recommendations may include measures to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH. Federal agencies are required to respond to EFH Conservation Recommendations in writing within 30 days.

For more information, contact Council staff officer Kerry Griffin (Kerry.griffin@noaa.gov) or call the number on the front page of this fact sheet. For information on the Habitat Committee, contact Jennifer.Gilden@noaa.gov.

Updated July, 2017