

## Pacific Halibut

The **Pacific halibut** (*Hippoglossus stenolepis*) was called "haly-butte" in Middle English, meaning the flatfish to be eaten on holy days.

**General description:** Halibut are more elongated than most flatfishes, the width being about one-third the length. Small scales are imbedded in the skin. Halibut have both eyes on their dark or upper side. The color on the dark side varies but tends to assume the coloration of the ocean bottom. The underside is lighter, appearing more like the sky from below. This color adaptation allows halibut to avoid detection by both prey and predator.

**Life history:** Spawning takes place during the winter months with the peak of activity occurring from December through February. Most spawning takes place off the edge of the continental shelf in deep waters of 200 to 300 fathoms. Male halibut become sexually mature at 7 or 8 years of age while females attain sexual maturity at 8 to 12 years. Females lay two to three million eggs annually, depending on the size of the fish.

Fertilized eggs hatch after about fifteen days. Free-floating eggs and larvae float for up to six months and can be transported several hundred miles by North Pacific currents. During the free-floating stage, many changes take place in the young halibut, including the migration of the left eye to the right side of the fish. During this time the young halibut rise to the surface and are carried to shallower water by prevailing currents. In the shallower water, young halibut then begin life as bottom dwellers. Most young halibut ultimately spend from five to seven years in rich, shallow nursery grounds like the Bering Sea.

Young halibut, up to 10 years of age, are highly migratory and generally migrate in a clockwise direction east and south throughout the Gulf of Alaska. Halibut in the older age classes tend to be much less migratory. Older fish often use both shallow and deep waters over their annual cycle.

Research indicates that there may be small, localized spawning populations in deep waters such as in Chatham Strait in northern Southeast Alaska. However, because of the free-floating nature of eggs and larvae and subsequent mixing of juvenile halibut from throughout the Gulf of Alaska, there is only one known genetic stock of halibut in the northern Pacific.

Halibut growth rates vary depending on locations and habitat conditions, but females grow faster and live longer than males. The oldest recorded female was 42 years old whereas the oldest male was 27 years old. Halibut are the largest of all flatfish. The largest recorded sport caught halibut was 459 pounds near Unalaska in 1996.

**Food habits:** Being strong swimmers, halibut are able to eat a large variety of fishes including cod, turbot, pollock, and some invertebrates such as crab and shrimp. Sometimes halibut leave the ocean bottom to feed on pelagic fish such as sand lance and herring.

**Commercial fishing:** Commercial halibut fishing probably began in 1888 when three sailing ships from New England fished off the coast of Washington state. As the industry grew, company-owned steamers carrying several smaller dories, from which the fishing was actually conducted, dominated the halibut fishery. Subsequently, smaller boats of schooner design in the 60- to 100-foot class were used in the fishery. These boats carried crews of five to eight and were specifically designed for halibut fishing. Today, many types of boats are used in the halibut fishery. Most of the old-style halibut schooners have been replaced by more versatile craft that may also be used in commercial salmon seine, troll, gillnet, and crab fisheries.

Halibut gear consists of units of leaded ground line in 100 fathoms lengths referred to as "skates." Each skate has approximately 100 hooks attached to it. "Gangens," or the lines to which the hooks are attached are either tied to or snapped onto the ground line. A "set" consists of one or more baited skates tied together and laid on the ocean bottom with anchors at each end. Each end has a float line with a buoy attached. Hooks are typically baited with frozen herring, octopus, or other fresh fish. Depending on the fishing ground, depth, time of year, and bait used, a set is fished 2 to 20 hours before being pulled. Longlines are normally pulled off the ocean floor by a hydraulic puller of some type. The halibut are cleaned soon after being boated and are kept on ice to retain freshness.

**Sport fishing:** Sport fishing for halibut in Alaska is a very popular activity, with over 65 percent of the effort and harvest occurring in Kachemak Bay, Southeast Alaska, the Kodiak area, and near the mouth of Deep Creek in Lower Cook Inlet.

Halibut taken by sport anglers are generally 15 to 20 pounds in weight; however, fish over 150 pounds are frequently caught. The current Alaska state record for a sport-caught halibut is 459 pounds, and a fish must weigh at least 250 pounds to qualify for the state's trophy fish program. Anglers use stout saltwater fishing gear to harvest halibut. The effort and interest in catching these delicious fish is increasing each year. In Southeast Alaska, halibut are second only to king salmon in sport angler preference.

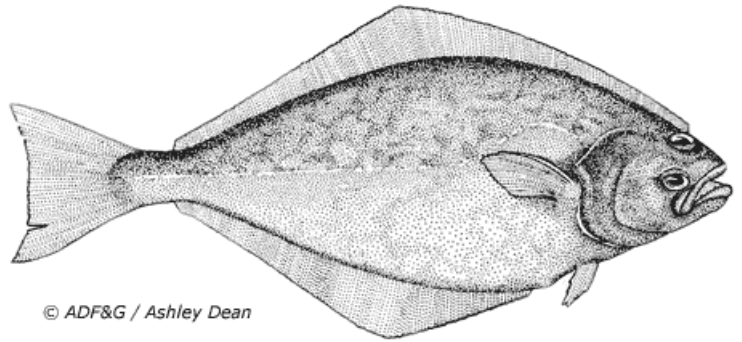
Halibut, along with salmon, provided subsistence for several Pacific Coast native groups. Much folklore is found concerning halibut. Each fish hook used by Alaska natives was carved with special designs to bring good luck and large fish. The halibut were smoked and dried for winter use.

Fishing for Pacific halibut is regulated by the International Pacific Halibut Commission. Members from the United States and Canada meet yearly to review research, check the progress of the commercial fishery, and make regulations for the next fishing season. The management of halibut fishing by this commission is intended to allow a maximum sustainable yield of halibut.

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