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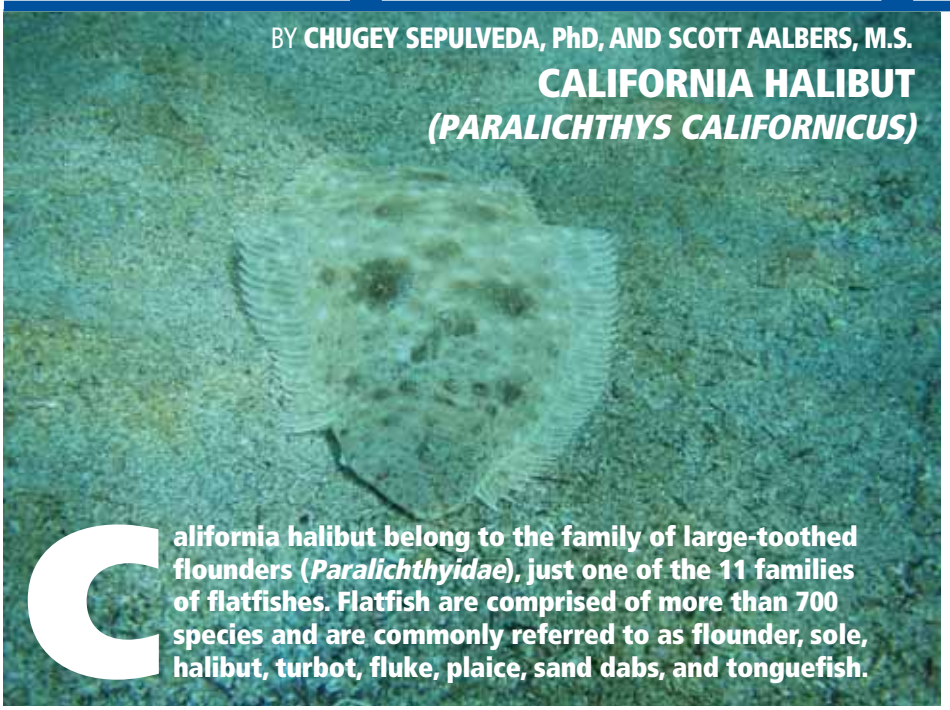
CALIFORNIA HALIBUT
(PARALICHTHYS CALIFORNICUS)



California halibut belong to the family of large-toothed flounders (*Paralichthyidae*), just one of the 11 families of flatfishes. Flatfish are comprised of more than 700 species and are commonly referred to as flounder, sole, halibut, turbot, fluke, plaice, sand dabs, and tonguefish.

They are easily identifiable with a laterally compressed body and both eyes on the same side of an asymmetrical head. In some families (*Pleuronectidae*), the eyes are always on the right side of the body, and in other families (*Bothidae*) eyes are always on the left. Although the California halibut is classified in the group of left-eyed flounders, this species is unique in that about half of California halibut consist of right-eyed individuals. When larval halibut are approximately one month old, the right or the left eye begins to migrate to the other side of the head. Once the eye has completely migrated (approximately six weeks) and their head morphology has changed, the young juveniles are ready to settle out to the bottom.

Following metamorphosis at approximately one half of an inch in size, halibut larvae typically settle out within embayments or along shallow sandy beaches. Shallow bays and estuaries offer critical nursery habitat for young juveniles to feed and evade predators. Newly settled halibut feed primarily on crustaceans, including copepods and amphipods, until they reach approximately 2.5 inches in length. Juveniles become increasingly piscivorous (feeding on fish) with size and primarily eat gobies and other small fish. Adult halibut feed predominantly over sandy bottoms from the surf line out to 50 fathom, and they will ambush unsuspecting prey while lying camouflaged on the bottom under a dusting of sand.

Mature halibut feed primarily on anchovies, sardines, top smelt, grunion, white croaker, and squid. These fish are relatively slow-growing, reaching seven to nine inches and about one pound in their first year of life. In general, females grow more rapidly and attain larger sizes than male halibut. Male halibut mature at around two to three years, whereas most females reach sexual maturity at approximately four years of age and 15 to 17 inches. A 22-inch female is around five or six years old, while males require about another year to reach this legal size. Halibut are relatively long-lived, capable of reaching 30 years of age.

To spawn, mature halibut move inshore from February through July, with peak spawning in May along shallow stretches of sandy coastline. Spawning season typically coincides with periods of heightened fishing pressure in southern California. Likely due to their faster growth rates, larger halibut tend to be female, and in California females comprise a greater fraction of the commercial landings (60 to 80 percent).

Fisheries

California halibut continue to support valuable commercial and recreational fisheries, although annual catch rates currently average around one fifth of the 4.7 million pounds landed back in 1919. Peak commercial landings rapidly declined to a low of 950,000 pounds in 1932.

Stock depletion has been attributed to both over-fishing and alterations of nursery habitat (bays and estuaries). Commercial halibut landings in California currently average around one million pounds annually, and these fish are harvested using bottom trawls, set gillnets, and hook-and-line. Trawl and gillnet fisheries are highly regulated through size (22-inch limit), gear (minimum mesh size of 8.5 inches), season (closed March 15th through June 15th), and area restrictions, with no gear allowed within three miles of the coast or one mile of the Channel Islands. In recent years, commercial hook-and-line fisheries have gained popularity, with up to 20 percent of annual landings caught with hook-and-line gear.

Back in 1971, a minimum size of 22 inches was also instated for the recreational fishery, with fillets needing to be at least 16 3/4 inches in length with the skin intact. In addition, recreational fishers are limited to a daily bag limit of five California halibut south of Point Sur and only three halibut per day when fishing north of Point Sur.

With increasing concerns over water quality, and an awareness of the need for estuarine habitat restoration, it may be that the halibut will be among the many species to benefit from our society's push to clean up and conserve our inshore waterways. By comparing the historical landings of the early 1900s to those of today, it is obvious that we have a long way to go before the stock is in the condition it once was. However, given the stringent regulations currently in place on all stakeholders, it is likely that we will see better halibut fishing in the years to come.

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