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BARRED SURFPERCH (*Amphistichus argenteus*)

The surfperches make up the family Embiotocidae, a unique group of 23 species that are distributed throughout the temperate waters of the North Pacific. Because 19 of the species occur along the California coastline, surfperch are a common sight for most surf and pier anglers.

Differentiating among the various species can be difficult as many surfperch are similar in size and appearance, with a laterally-compressed body and forked tail. Some of the most common species encountered by South Coast anglers fishing from jetties and rocks include the black surfperch, pile surfperch, rubberlip surfperch, shiner surfperch, striped seaperch, and walleye surfperch. Surfcasters fishing over sandy bottoms predominantly catch barred surfperch, calico surfperch, redbtail surfperch, and silver surfperch.

While many traits are consistent

among the different surfperch species, this article will focus on the barred surfperch, *Amphistichus argenteus*, because this species consistently ranks number one in terms of catch composition by Southern and Central California surf anglers.

Fisheries:

Barred surfperch make up an important component of California's shore-based fisheries, and also support small commercial operations along the Central California coast. Most sport-caught surfperch are taken in the surf

line along stretches of sandy beaches by casting light tackle from shore, piers or jetties. Estimates for the recreational fishery suggest that barred surfperch landings fluctuate from year to year and have ranged from 400,000 to over 1,000,000 fish caught annually.

The commercial landings are considerably less than the recreational catch but still account for significant landings. Collectively, in California the surfperch complex (several different species) has supported landings that exceed 300,000 pounds, but in most years the landings have been closer to 100,000 to 200,000 pounds. Although many anglers currently practice catch-and-release for surfperch, this species is considered to be very good eating and provides for excellent table fare.

Ecology: Although barred surfperch can be opportunistic feeders, gut content studies have shown that more than 90% of their diet often consists of sand crabs. Other important prey items include polychaete worms, razor clams, bean clams, isopods (rock lice) and amphipods. Barred surfperch can be caught throughout the year in Southern California, although the winter months are reported to be the time of year with the highest angler success. Tagging studies have shown that barred surfperch can move as far as 30 nautical miles; however, most of the tagged individuals were captured near their original release location. This species is relatively short-lived, reaching no more than nine years old, 17 inches in length, and about five pounds in weight.

Reproduction: Surfperch mating occurs during the winter months when males internally fertilize the eggs of a female using a bulbous

genital gland. Once the small yolk sac of the fertilized egg is absorbed, developing embryos are nourished with oxygen and nutrients from the surrounding fluid within enlarged oviduct sacs.

The gestation period for developing embryos is around five months, and the free-swimming young are birthed at about two inches in length. This reproductive strategy differs from the majority of marine fishes, which broadcast gametes into the water column for external fertilization and development. Because surfperch are livebearers, fecundity is low with an average-sized female giving birth to around 30 fully developed young during the spring and early summer.

While their low annual reproductive potential might suggest that surfperch are susceptible to overharvest, their vulnerability is likely offset by the fact that most males become mature during their first year of life (~six inches) and most females produce offspring after year one. Also, because embryos are fully developed at birth, young surfperch have a reduced risk of predation relative to egg-laying species. Although there is no indication that surfperch populations are in decline, anglers can reduce their impact on local stocks by avoiding the harvest of females between February and June. This is especially the case for those that are uncomfortable with the sight of fully developed young upon cleaning the catch.

Most of the information provided by J. G. Carlisle Jr., J.W. Schott and N.J. Abramson (1960) *The Barred Surfperch (Amphistichus argenteus Agassiz) in Southern California*. Fish Bulletin 109; and California's Living Marine Resources; A Status Report, 2001

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