

# Monkeyface Prickleback

## History of the Fishery

The monkeyface prickleback (*Cebidichthys violaceus*) is a nearshore fish that is a minor component of the recreational and commercial catch. It is frequently referred to as monkeyface eel and blenny eel due to its eel-like appearance. However, it is more closely related to bass-like fishes (Perciformes) than to true eels. It is a member of the prickleback family, Stichaeidae, of which 17 species occur in California. Its elongate body shape is an adaptation for living in cracks, crevices, and under boulders, primarily in the intertidal zone. Monkeyface prickleback have been found in coastal Indian middens of California along with cabezon and rockfishes and were undoubtedly exploited as a food resource in historic and prehistoric times.

A specialized recreational fishery by shore anglers fishing in rocky intertidal and shallow subtidal habitat exists for this species. The most common fishing method is "poke poling," which normally consists of fishing with a long bamboo pole, a short piece of wire, and a baited hook. The bait is placed in front of or in holes or crevices in the rock. Skin and scuba divers also spear them.

The monkeyface prickleback did not rank among the top fifteen species observed in either beach/bank or jetty/breakwater fishing categories in a 1980 through 1986 Marine Recreational Fisheries Statistics Survey (MRFSS) in California. The most recent (1999) MRFSS total catch estimate for northern California from all recreational fishing categories was 2,000 fish; however, the standard error of the estimate was much higher than the estimate.

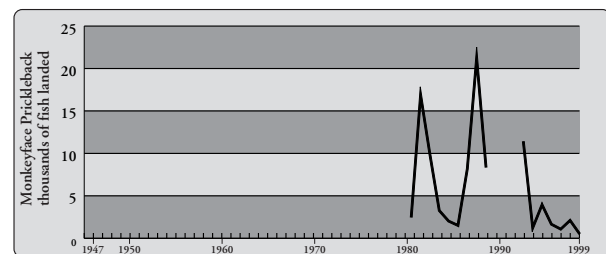
Commercial landing records in California date from 1928. Catch since then can best be described as of minor significance. Since 1991, annual landings have ranged from 12 to 935 pounds, primarily from the port areas of San Francisco and Santa Barbara. However, catch statistics may include California moray, rock prickleback, wolf-eel, and other eel-like fishes or true eels.

## Status of Biological Knowledge

The monkeyface prickleback ranges along the Pacific coast from San Quentin Bay, Baja California, Mexico to central Oregon. It is most common off central California from San Luis Obispo County to Sonoma County, and is uncommon south of Point Conception. They normally occur in the intertidal zone with a depth range extending from the high intertidal to a reported depth of 80 feet. Typical habitat for monkeyface prickleback includes rocky intertidal areas with ample crevices, boulders, and

algal cover, including high and low tide pools, jetties and breakwaters, and shallow subtidal areas, particularly rocky reefs and kelp beds. Juveniles are particularly adapted for living in the high intertidal zone. The species is capable of living out of water under algae for extended periods and has air-breathing capacity. It is considered to be a residential species, moving short distances from crevices or under rocks to foraging sites. It appears to occupy a small home range of several meters and is primarily active during periods of a flooding tide.

The coloration of the species is a uniform light brown to dark green, often with several rust-colored blotches on the sides of the body. Two dark stripes radiate behind the eye. Adults have a lumpy ridge on top of the head. The coloration of both sexes is similar.



Recreational Catch 1947-1999, Monkeyface Prickleback

Data Source: RecFin data base for all gear types; data not available for 1990-1992

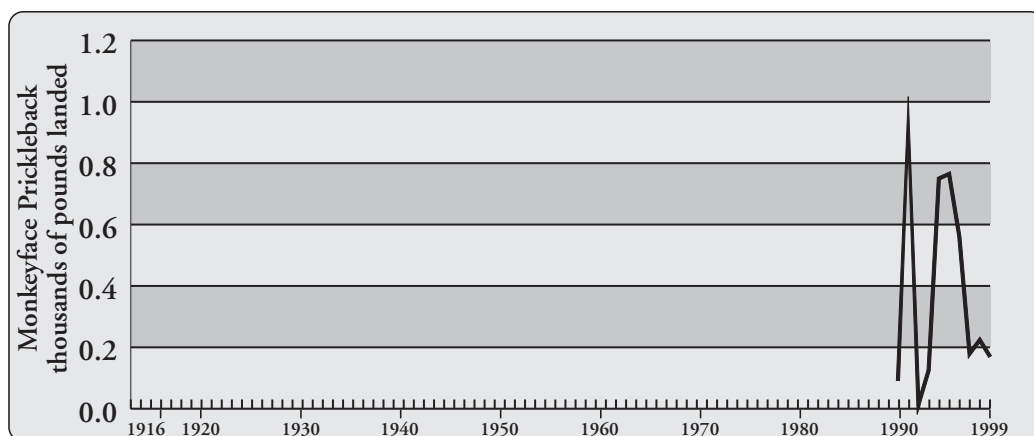
Monkeyface prickleback grow slowly, particularly after the first few years of life. A 12-inch fish is approximately three years old, while a 24-inch fish will be 15 to 17 years old. Monkeyface prickleback have been aged to 18 years using the otolith and opercular bone, but the largest specimens have not been aged. The maximum reported size is 30 inches in total length; 18 to 24 inch individuals are not uncommon.

Information available on age at sexual maturity suggests that both sexes begin to mature in their third or fourth year at a total length range of 11.0 to 14.2 inches, while 50 percent maturity occurs at approximately 15.4 inches at five years of age. Fertilization is internal and spawning activity occurs from January to May, with the peak spawning period from February to April. Females are oviparous, depositing their eggs on subtidal, rocky surfaces. Fecundity is known to range from 17,500 eggs for a 16-inch, seven-year old fish to 46,000 eggs for a 24-inch, 11-year-old fish, with smaller fish producing fewer eggs. Nest guarding behavior has been observed but it is unclear



Monkeyface Prickleback, *Cebidichthys violaceus*  
Credit: PSMFC

**Commercial Landings  
1916-1999,  
Monkeyface Prickleback**  
No commercial landing are reported for monkeyface prickleback prior to 1990. Data Source: DFG Catch Bulletins and commercial landing receipts.



if the female, male, or both sexes guard the egg mass. Larval length at hatching is unknown; larvae begin to settle out of the plankton at 0.7 to 0.9 inches.

The diet of monkeyface prickleback shifts from carnivorous to herbivorous with an increase in size. As early juveniles, up to 3.1 inches, prey items are predominantly zooplankton and include copepods, amphipods, isopods, mysids, and polychaetes. At approximately three inches, they then become almost exclusively herbivorous. Over sixty species of algae have been recorded as food items. Despite this wide array, they appear to feed selectively on eight to 10 species of red and green algae, mostly in the genera *Ulva*, *Porphyra*, *Mazzaella*, *Microcladia*, and *Mastocarpus*. Adults appear to prefer annual red and green algae to perennial red algae. This preference is determined to some degree by ocean season and availability.

Predators of monkeyface prickleback include piscivorous birds, such as great egrets and red-breasted mergansers, and fishes such as cabezon and grass rockfish. Predation is primarily on the earlier life stages of this species; large juveniles and adult fish most likely evade or outgrow these predators.

Other intertidal boulder and crevice-dwelling eel-like fishes, such as the rock and black pricklebacks and pen-point and rockweed gunnels, are possible competitors with monkeyface prickleback for space and food resources.

### Status of the Population

No information is available on the status of stocks of monkeyface prickleback. The primary source of fishing mortality is from recreational poke polers and commercial anglers fishing from shore or the shallow subtidal, with a lesser number taken spearfishing by free and scuba divers. Historically, both recreational and commercial landings are considered to be low.

### Management Considerations

See the Management Considerations Appendix A for further information.

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