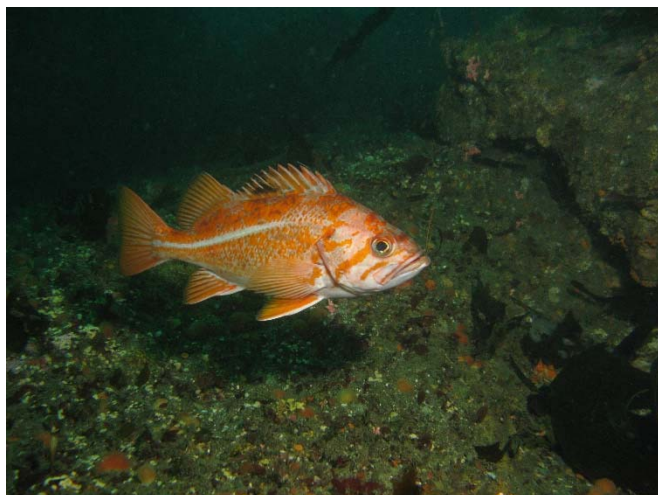


CANARY ROCKFISH (*Sebastes pinniger*)



Canary Rockfish are an important component of the rocky reef ecology along the west coast of North America. They are often found in large schools sometimes with a mix of other rockfish species. Canary Rockfish are an important fishery species. They were declared overfished in 2000 and the species constrained fisheries for healthy stocks until it was declared recovered in 2015. Limited catch of Canary Rockfish is now allowed in both recreational and commercial fisheries. Canary are orange to yellow in color with gray markings including a gray line running the length of the body. Canary Rockfish are closely related and look similar to vermillion rockfish.

OVERVIEW

- **Oregon Conservation Strategy Species**
- **Size:** Up to 30 inches long (females get larger than males)
- **Weight:** Up to 14.7 pounds
- **Lifespan:** At least 84 years
- **Key Strategy Habitats:** Nearshore
- **Similar Species:** Vermilion Rockfish, Yelloweye Rockfish

FISHING TIPS

- Start in the morning.
- Target rocky reef, or areas of gravel or cobble bottom habitat from 60-600 ft. deep.
- Drop your hook to the bottom, or the depth of the schools and jig through the water column.
- A variety of lures and flies work well.
- Remember to check the fishing regulations for the area before you go and be sure you have your fishing license.

FUN FACTS

Favorite Food: Fish and krill

- All rockfish mate and have internal fertilization, are born live and spend several months as pelagic larvae before settling to the bottom.
- Canary Rockfish are mature between 7 and 20 years old.
- Female Canary Rockfish may produce up to 1,900,000 eggs!
- Canary Rockfish are a schooling species often found at the interface of rocky and soft sediment bottom, but can be found higher in the water column.
- Canary Rockfish tend to move offshore to deeper waters as they grow larger and get older.

RANGE AND DISTRIBUTION

In Oregon: Canary Rockfish can be found throughout the state's marine waters and young of the year may even settle in tide pools. They are most frequently found at depths less than about 650 feet over or near rocky bottoms.

Everywhere Else: Canary Rockfish range from the western Gulf of Alaska to northern Baja. They are more common from British Columbia to central California.



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LIFE HISTORY AND ECOLOGY

Like all rockfish species, fully formed larvae are released from their mother's body to live for 3 to 4 months in the water column. These pelagic larvae turn into juveniles that usually settle to the bottom in shallow nearshore waters from April to July at about 1 inch in length. As they grow larger and older they tend to move to deeper waters. Adults have been found as deep as 2,749 feet, but they are more typically found at depths from about 60 to 650 feet. Canary Rockfish are a schooling species often found near the interface of rocky and soft sediment bottom types, but they can move up into the water column well above the bottom.

Female Canary Rockfish mature between about 7 to 20 years of age at lengths from about 15 to 20 inches. Rockfish don't spawn; spawning refers to the release of sperm and unfertilized eggs into the environment. Rather, all rockfish species mate and have internal fertilization, but the process of courtship and mating has been observed for relatively few of the many species. Large female Canary Rockfish may produce up to 1,900,000 eggs. Female Canary Rockfish release their young from November to March. The long lifespan with annual and reproductive cycle helps to ensure that when the right combination of environmental conditions occur in the highly variable California Current system that a good year class of recruits are produced.

Predators of Canary Rockfish include sea birds (for juveniles), fish, and humans. Human harvest has had substantial influence on the population of Canary Rockfish off the west coast. Canary Rockfish are sometimes landed on recreational bottom fishing trips off Oregon. They are also taken by commercial fishermen. The biggest fishery landings of Canary Rockfish off the west coast were caught by commercial trawl fisheries in the 1980s with much of that being landed in Oregon. Substantial reductions of harvest for Canary Rockfish were put in place in the 1990s. Canary Rockfish were declared overfished in 2000 and recovered in 2015.

Other than the move to deeper water as Canary Rockfish get older, there is little direct information about the movements of adults. One limited tagging study off Oregon recovered 10 of 348 Canary Rockfish tagged. Three of these tagged fish were recovered in the vicinity of where they were tagged after less than two years at liberty. The other seven moved more substantial distances with the furthest movement being at least 146 miles southward and offshore from where it was tagged in just over 2 years. But not all of the recovered Canary Rockfish traveled the same direction. One moved at least 90 miles northward and offshore. Another more recent study using acoustic transmitter tags and moored receivers to detect and track movements of several rockfish species found that Canary Rockfish moved around the study area quite quickly and that although one fish was detected periodically in the study area off the Oregon coast for more than a year, other Canary Rockfish appeared to leave the area shortly after being released. This study also found that Canary Rockfish can and do make extensive vertical movements up and down in the water column.

DIET AND FORAGING

Newly settled young of the year Canary Rockfish eat a wide variety of plankton. As Canary Rockfish grow they add more fish to their diet and also eat krill.



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HABITAT CHARACTERISTICS

Coastal waters usually less than about 650 feet deep usually over or near rocky bottoms. But Canary Rockfish have been reported in depths to about 2,750 feet.

CONSERVATION AND MANAGEMENT

Threats: Canary Rockfish that reside in the California Current Ecosystem benefit from the annual seasonal cycle that includes upwelling of cold nutrient rich waters during the spring and summer months, which are critical for ocean productivity. Changes in ocean productivity, whether they are human induced or natural, can affect reproductive success and stock size. Canary Rockfish are also vulnerable to overfishing based on both productivity and susceptibility analysis. In fact this stock was declared overfished in 2000, but has since recovered.

Conservation and management: Canary Rockfish are included in the federal Pacific Coast Groundfish Fishery Management Plan administered by the Pacific Fishery Management Council (PFMC). Stock assessments for Canary Rockfish are conducted periodically by PFMC to help manage for sustainable fisheries. The Oregon Department of Fish and Wildlife works in concert PFMC and manages fisheries for Canary Rockfish within state waters. There is much still unknown about this species and there is an extensive set of research and data needs to improve conservation and management. Some of these needs include better information about adult movements, fishery-independent surveys to get better information on abundance in areas that cannot be surveyed by trawling, and better information on what environmental and ecological factors influence good recruitment in this stock.

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