



BROWN ROCKFISH (*Sebastes auriculatus*)



Brown Rockfish get their scientific name *auriculatus*, which means eared in Latin, from the dark blotch found on their gill cover. This “cheek patch” helps distinguish this species from other similar species. They come in various shades of light brown with extensive darker brown mottling. Brown Rockfish have prominent spines on their head and heavy bodies.

OVERVIEW

- **Oregon Conservation Strategy Species**
- **Size:** Up to 22 inches long
- **Weight:** Up to 5.9 pounds
- **Lifespan:** At least 34 years
- **Key Strategy Habitats:** Estuaries, Nearshore
- **Similar Species:** Copper Rockfish, Quillback Rockfish, Grass Rockfish

FISHING TIPS

- Start in the morning.
- Target rocky reef areas.
- Drop your hook to the bottom, then reel up slowly.
- 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: Crab, shrimp, and small fish. They also sometimes eat isopods, clams, worms, sea stars, and fish eggs.

- This species can be found over a wide variety of habitat types that range from flat rocky bottom to high relief areas to piers, jetties, and nearby soft sediments.
- Research suggests that Brown Rockfish have dispersal distances of only about 6 miles or less per generation.
- Brown Rockfish have poison glands associated with all of their fin spines. Most rockfish only have poison glands for the first dorsal and anal fin spines. The venom can be painful but is not generally dangerous unless it causes an allergic reaction or the wound becomes infected.

RANGE AND DISTRIBUTION

In Oregon: Brown Rockfish certainly occur in Oregon waters, but seem to be more abundant both to the north and south of Oregon.



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Everywhere Else: Brown Rockfish range from Prince William Sound in the Gulf of Alaska to southern Baja. They are more common from the southern part of southeast Alaska to Puget Sound and from Bodega Bay, California to central Baja.

LIFE HISTORY AND ECOLOGY

Like all rockfish species, fully formed larvae are released from their mother's body to live for several months in the water column. Brown Rockfish seem to have very limited larval dispersal. Their pelagic larvae are most common in very nearshore survey stations and their pelagic life stage is shorter than most other species. Genetic research suggests that their dispersal distance is only 6 miles or less per generation. They settle to the bottom in mixed sand and rocks from April to September after 2.5 to 3 months and are known to settle in estuaries as well as in nearshore waters. Once they settle, Brown Rockfish tend to stay close to bottom.

Brown Rockfish mature between 4-10 years of age and can live to at least 34 years. 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. Female Brown Rockfish can produce 55,000-339,000 eggs each year. The developing embryos get substantial nourishment that does not come from the egg itself. There is no placenta or other structure for transfer of nutrition and research suggests that the nourishment comes from dead embryos and undeveloped eggs that are reabsorbed into the amniotic fluid. Female Brown Rockfish have been known to release multiple batches of larvae during the year in some parts of their range. Hybrids of both Copper and Quillback Rockfish with Brown Rockfish occur in the Pacific Ocean, but they are more common in Salish Sea and the hybridization process seems to be a long-standing rather than recent occurrence. The long lifespan with an annual 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 young is produced.

Known predators of Brown Rockfish include Chinook Salmon, Leopard Sharks, Rhinoceros Auklets (for juveniles), and humans. Brown Rockfish have long been a fishery species caught on recreational bottom fishing trips and even from rocky shorelines, jetties, and piers. They are also taken by commercial fishermen and sold both to the fresh fish market and the live fish market.

DIET AND FORAGING

Brown Rockfish eat primarily fish, crabs, and shrimp. They also eat worms, clams, fish eggs, and sea stars.

HABITAT CHARACTERISTICS

Brown Rockfish can be found in a wide variety of habitats that range from pier pilings to jetties to high relief rocky reefs to flat rocky bottoms to soft sediments that surround reefs. They can be found in estuaries. Brown Rockfish can be found from the intertidal zone down to about 950 feet.



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CONSERVATION AND MANAGEMENT

Threats: Brown 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. Brown Rockfish are also vulnerable to overfishing based on productivity and susceptibility analysis.

Conservation and management: Brown Rockfish are included in the federal Pacific Coast Groundfish Fishery Management Plan administered by the Pacific Fishery Management Council (PFMC). Brown Rockfish have had one data-moderate assessment conducted by PFMC to help manage for sustainable fisheries. The Oregon Department of Fish and Wildlife works in concert PFMC and manages fisheries for rockfish within state waters. Brown Rockfish are not a big component of fishery landings in Oregon. There is much still unknown about this species and there is an extensive set of research and data needs to improve conservation and management. Fishery-independent surveys to provide better information on abundance, distribution, and population trends are high on that list.

REFERENCES

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