

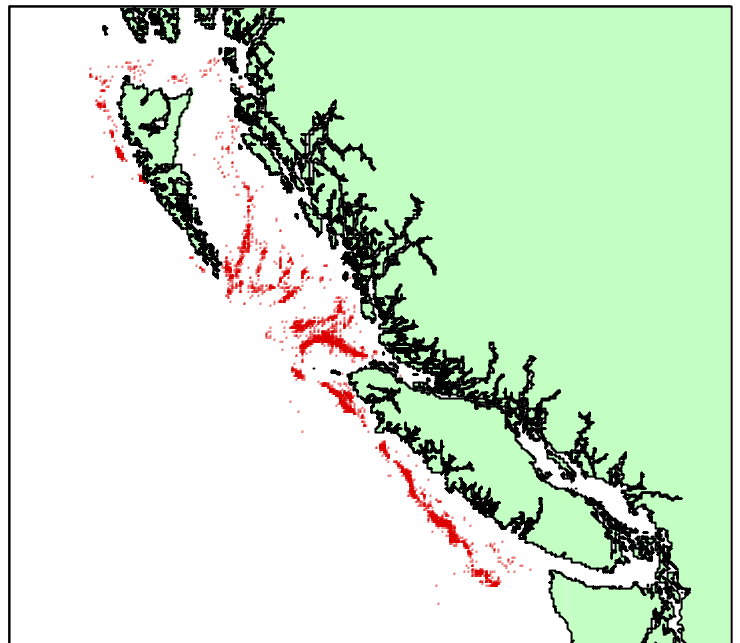
Sebastes proriger

Redstripe Rockfish British Columbia Coast

Background

Redstripe rockfish (Sebastes proriger) range from southern California to the Bering Sea at depths of 12 to 425 metres. They are generally found over high-relief, rocky bottoms and can often be found in mid-water. They can occur singly but most often form dense aggregations. Evidence suggests that redstripe rockfish schools remain near the bottom during the day but rise up and disperse at night.

Redstripe rockfish may live to about 50 years of age, although data from 1990-92 indicate that the mean age along the British Columbia coast is 20 years with a maximum of 48 years. Redstripes reach a maximum size of about 60 cm, but are generally smaller than other slope rockfish species. In B.C., the mean length is 33 cm with a maximum length of 49 cm. Males and females reach 50% maturity at a length of about 28 cm. Spawning occurs from May to July. Fertilized eggs remain within the ovary until larval extrusion and may obtain at least some of their nutrition from the female parent during development.



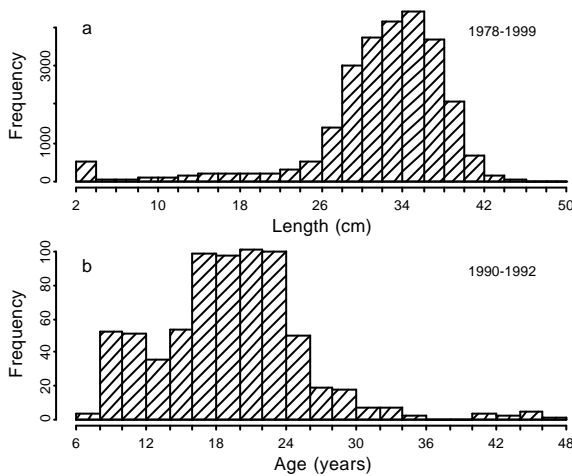
Canadian trawl catch locations of redstripe rockfish in British Columbia, 1998.

The Fishery

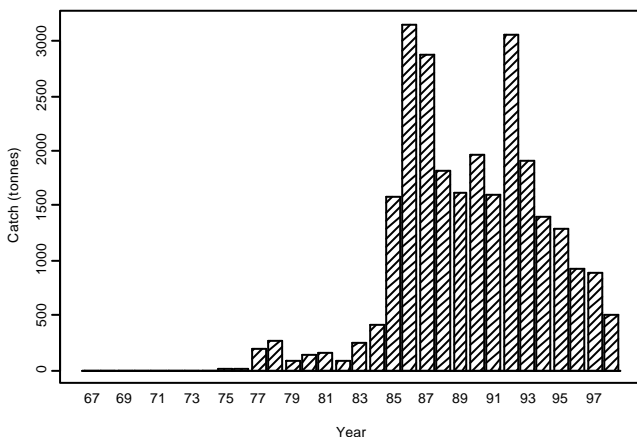
A trawl fishery for redstripe rockfish and other slope rockfish has existed in B.C. since the 1940s. A foreign fishery was active coastwide between 1956 and 1982 with the largest catches landed by Soviet and Japanese fleets between 1965 and 1970. In the early years of the Canadian trawl fishery, statistics were confounded by the practice of reporting the catch of several similar species under one category such as “ocean perch” or “red rockfish.” However, reporting has improved since the late 1970s.

Redstripe rockfish are predominately taken by trawl gear near the bottom and at mid-water depths. Hook-and-line catches are minimal. The largest catches occur in Goose Island and Mitchell’s Gullies of Queen Charlotte Sound with smaller catches taken off the west coast of Vancouver Island and in Moresby Gully. Catches from the west coast of Queen Charlotte Island

are minor. Prior to the 1994 introduction of port monitoring, redstripe rockfish catch figures may have been inflated by landings of misidentified Pacific ocean perch. For example, the 1992 reported redstripe rockfish catch from Goose Island Gully is double the reported Pacific ocean perch catch, while the 1996 reported redstripe rockfish catch is roughly one quarter of the Pacific ocean perch catch. The discard rate for redstripe rockfish is considerably higher than for other slope rockfish because of their smaller size.



Frequency distributions in B.C. of (a) length: sample size = 25,659 (48% observer, 22% port landings, 26% other commercial, 4% research), minimum = 2 cm, maximum = 49 cm, mean = 32 cm; and (b) age: sample size = 704 (100% port landings), minimum = 7 years, maximum = 48 years, mean = 20 years.



Coastwide Canadian trawl catch of redstripe rockfish. Data for 1998 are not complete.

Resource Status

A biomass survey of the southwest coast of Vancouver Island in 1996 indicated a redstripe rockfish biomass of just under 1,000 tonnes, or slightly less than half of the biomass estimate for Pacific ocean perch. Goose Island Gully surveys conducted in 1994 and 1995 provided estimates of redstripe rockfish relative biomass at 2 to 3% and 6%, respectively, of the corresponding Pacific ocean perch biomass. However, on all of these surveys data were collected using bottom trawls alone and Pacific ocean perch were the target species. A comparison of 1995 commercial mid-water and bottom trawl catches suggests that approximately half of the redstripe rockfish catch was harvested by mid-water trawl. Thus, the actual biomass of redstripe rockfish might be considerably greater than has been estimated in recent surveys.

Outlook

Limited data gathered between 1990 and 1992 suggest that 1982 was the last year that a significant recruitment event occurred in the redstripe rockfish stocks in B.C. Therefore, abundance is expected to decline until the next major recruitment takes place. Such an event would likely not become evident in age data from the fishery until fish reach the age of 7.

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