

Silvergray Rockfish

Background

The silvergray rockfish (*Sebastes brevispinis*) is an important component of the rockfish catch in the commercial trawl fishery off British Columbia. It ranges from southern California to the Bering Sea. Adults tend to be captured in waters of 100 to 375 metres in depth. The principal area of commercial abundance is the coastal area of B.C., although minor fisheries exist in Washington and southeastern Alaska. Bottom trawling is the principal fishing mode but there is also a growing hook-and-line catch..

For stock assessment and management, silvergray rockfish in B.C. waters are treated as four stocks: the west coast of Vancouver Island; Queen Charlotte Sound; Hecate Strait; and the west coast of the Queen Charlotte Islands. Silvergray rockfish begin recruiting to the fishery at age 8 or 9 and can live to up to 80 years. Mating takes place in the spring and free-swimming larvae are released in mid-summer. Males and females mature between the ages of 8 and 15. The species appears to feed on euphausiids and small fish, including herring, and is typically found in areas of high relief near the edge of the continental shelf.

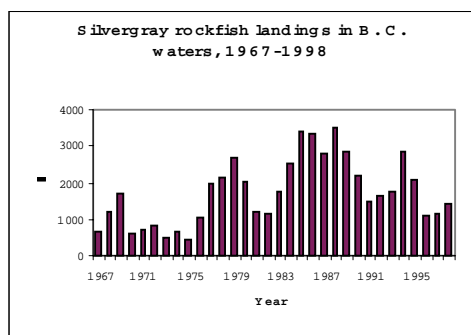
The fishery by Canadian vessels began in the 1960s. Total annual Canadian landings have averaged about 2,000 tonnes since the start of the fishery. Landings are approximately evenly distributed among the 4 southern stocks. Individual vessel quotas have been in place since 1997.

Summary

- Landings of all four stocks (1,148 tonnes) were lower than their historical averages and below the combined total allowable catch of 1,510 tonnes. It is not known whether the failure to reach each TAC is the result of the recent introduction of individual vessel quotas or reduced availability.
- Stock boundaries are unknown and status of all stocks is poorly known because of the lack of a credible abundance index and limited numbers of samples.
- The limited age composition data do not indicate, for either stock, a significant reduction in frequency of older fish and therefore do not imply a high exploitation rate, although this could also be the result of poor recruitment in the 1990s.
- The current assessment is limited to the collection of landings data and biological samples. Abundance surveys are problematic due to the small relative size of what are assumed to be unit stocks.
- Future outlook is unknown.

The Fishery

The first recorded landings for this species were made in 1967, although the fishery dates back to the early 1960s. Landings have averaged about 2,000 tonnes a year since 1967. The Hecate Strait and Queen Charlotte Islands fisheries did not start until the late 1970s. Almost all of the landings come from bottom-trawl fishing, although the Pacific ocean perch fishery has recorded some incidental catches of silvergray rockfish.



Resource Status

The stock dynamics of this stock are poorly understood. The current quota recommendations are:

W.C. Vancouver Island: 150-525 tonnes
 Queen Charlotte Sound: 350-700 tonnes
 Hecate Strait: 125-400 tonnes
 West Coast Q.C. Island: 175-300 tonnes

Age composition in the catches tends to indicate that fishery has had a significant impact but there are no convincing signs of over-exploitation. Current assessment work is limited to the collection of basic landings, size and age composition data.

Abundance surveys are impractical owing to the small relative size of the individual stocks and their affinity for partially un-trawlable bottom regions.

Outlook

Harvests are expected to remain at their current level. The stocks are probably close to maximum exploitation at present but the actual status is unknown.

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References

- Hart, J. L. 1973. Pacific fishes of Canada. Fish. Res. Board Canada Bull.: 180
- Stanley, R. D. and V. Haist. 1998. Shelf rockfish assessment for 1997 and recommended yield options for 1998. Canadian Stock Assessment Secretariat Research Document 97/132.

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