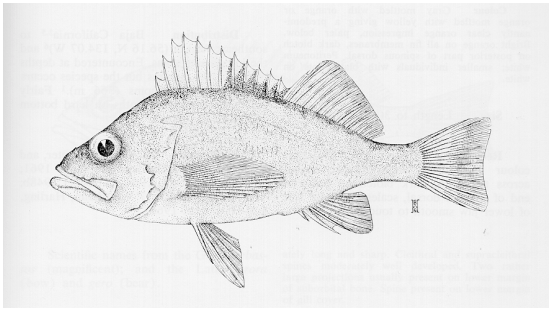
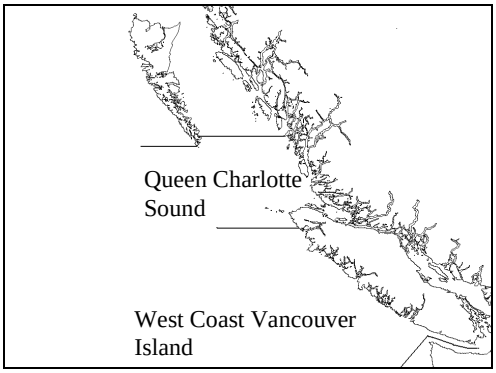


Canary Rockfish



Background

Canary rockfish (Sebastes pinniger) feed on small fish and euphausiids. They mature between 5 and 14 years of age. While males live up to 50 years of age, females rarely live to 35 years. They are often confused with yelloweye rockfish (S. ruberrimus) because of the brilliant gold colour on the sides. Canary rockfish live close to the bottom and appear to prefer areas of high relief near the edge of the continental shelf.

The species is an important component of the rockfish catch in the commercial trawl fishery off British Columbia. It ranges from Baja California to the Gulf of Alaska. Adults are captured at a depth of 50 to 375 metres, although juveniles can be captured in shallower waters. The principal depth of capture is 100 to 200 metres.

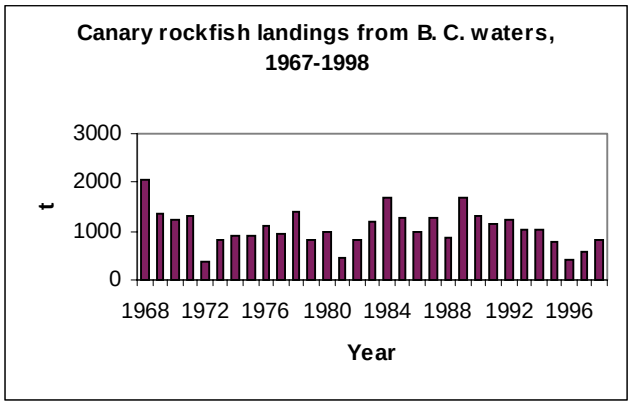
The principal area of commercial abundance is the coastal area of northern California to central B.C. Bottom trawl is the principal fishing technique, but there is a growing hook-and-line catch of canary rockfish. Stock assessment and management treat canary rockfish in B. C. waters as two coastal stocks: one off the west coast of Vancouver Island and another in Queen Charlotte Sound.

Canary rockfish begin recruiting to the fishery at age 6 and live to up to 60 years. Mating takes place in mid-fall and free-swimming larvae are released in late winter or early spring. Males and females mature between the ages of 5 and 14.

The Canadian fishery began in the mid 1970s. Since then, annual landings have averaged about 1,000 tonnes. Most landings come from the central coast of Vancouver Island and Queen Charlotte Sound. Since 1993, managers have used a combination of a coastwide quota in combination with trip limits. Annual quotas are not always filled. Individual vessel quotas have been in place since 1997

Summary

- Landings of the WCVI and QCSd stocks were both lower than the historical average landings and the 1997 total allowable catch. It is not known whether the failure to reach the TACs was the result of the introduction of individual vessel quotas or reduced availability.
- Actual stock boundaries are unknown.
- Stock status of both stocks is unknown due to the lack of biological samples and absence of an abundance index
- The limited age composition data do not indicate, for either stock, a significant reduction in frequency of older fish and therefore do not imply high exploitation. However, this could also be the result of poor recruitment in the 1990s.
- Current assessment activities include collection of routine landings and biological samples. Abundance surveys are problematic owing to the limited landings from the resource and tendency for the species to live in un-trawlable habitats.
- Future outlook is unknown.



The Fishery

First recorded landings for this species were from 1967, although the fishery was started in the early 1960s. Coastal landings have averaged about 1,000 tonnes a year since 1967 but only 750 tonnes over the last 5 years. Between 60 and 70 % of the landings is taken from the southern stock off the west coast of Vancouver Island. Most landings come from a bottom-trawl fishery.

Resource Status

The stock dynamics are poorly understood. The current quota recommendations are 350-525 tonnes and 200-400 tonnes for the southern and central stocks. Age composition in the catches tends to indicate that fishery exploitation 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 data as well as size and age composition information. Surveys are problematic, given the relatively small size of the stocks, the propensity for the species to live too close to the bottom for acoustic estimation and its apparent tendency to live predominantly in areas where bottom-trawl surveys cannot be performed.

Outlook

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

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References

Hart, J. L. 1973. Pacific fishes of Canada. Fish. Res. Board Canada Bull.: 180

Sampson, D. B. and E. Stewart. 1994. Status of the canary rockfish resource off Oregon and Washington in 1994. Appendix G. Appendices to the status of the Pacific coast groundfish fishery through 1994 and recommended acceptable biological catches for 1995. Appendix Vol. 2,. Stock assessment and fishery evaluation. Pacific Fishery Management Council. 2130 SW Fifth Avenue, Suite 224. Portland, OR 97201.

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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