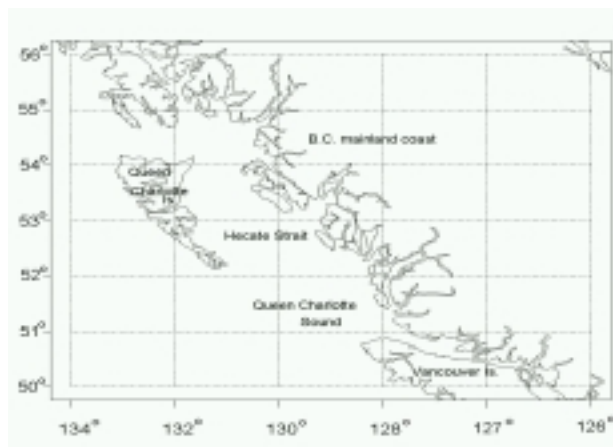




**Petrale Sole
British Columbia
(Areas 3C-5D)**



Background

*The Petrale sole (*Eopsetta jordani*) is a flatfish caught in the commercial trawl fishery off British Columbia. The range of the species extends from Baja California to the Bering Sea. B.C. is near the northern limit of commercial abundance.*

Two discrete populations have been identified off the B.C. coast, one off the southwest coast of Vancouver Island (Area 3C) and another resident off northwest Vancouver Island (Area 3D), Queen Charlotte Sound (Areas 5A/5B) and Hecate Strait (Areas 5C/D).

Petrale sole can live as long as 30 years, becoming available to the commercial fishery at about 4-5 years of age and spawning annually in winter. Adults occupy depths between 80 and 500 metres off the west coast of Vancouver Island. Males begin to spawn at 3 or 4 years of age, while females begin at 4 or 5.

Summary

- Coastwide annual landings of petrale sole show a long-term decline between 1944 and 1998.
- Landings since 1996 have been limited by a 470-tonne bycatch cap, which prohibits a directed fishery.
- Fishing mortality is low at present and will need to remain low for four or five years for stock abundance to increase.

The Fishery

Directed fishing for petrale sole is now prohibited because of a long-term decline in abundance of the species.

Prior to 1965 the fishery for petrale sole in B.C. involved primarily U.S. vessels. The fishery developed rapidly in the mid-1960s, following the discovery of large concentrations of spawning petrale sole off the west coast of Vancouver Island. Since Canada's declaration of extended

offshore jurisdiction in 1977 it has been exclusively Canadian. No directed fishery on petrale sole has been permitted since 1995, although the species is caught incidentally in other fisheries in all areas of the coast.

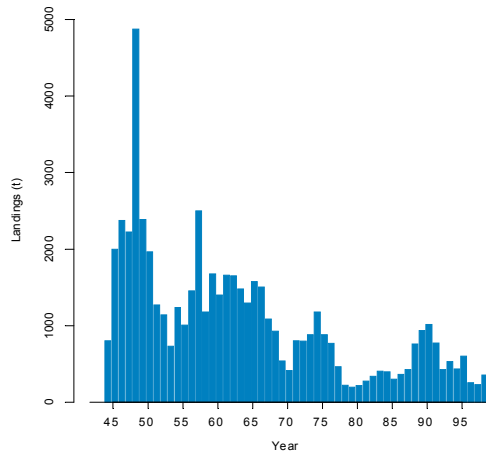


Figure 1: Annual landings of Petrale sole between 1944 and 1998 from the trawl fishery off the Pacific coast of Canada.

Coastwide annual landings from the commercial fishery for petrale sole in British Columbia peaked at 4,800 tonnes in 1948. However, they declined significantly after the mid-1960s. Vessel trip quotas were established in the early 1990s to limit the fishery on the species because of the decline.

Resource Status

Landings of petrale sole at the present time are very low. This is partially due to the effect of the non-directed fishery. Biological data for 1980-96 show a prolonged decline in the proportion of young fish entering the population. Although environment plays a strong role in regulating abundance for the species, scientists are concerned that the decline may be linked to low spawning stock biomass. They have recommended a non-directed fishery until a more detailed analysis can be conducted.

Outlook

Recent El Niño events were expected to have a positive effect on the abundance of the Petrale sole. When this did not occur, remedial measures were taken in hopes the stocks will eventually support a directed fishery again. The regulatory measure imposed by managers has eliminated the fishery on spawning concentrations in order to allow abundance to increase. In addition, an observer program initiated in 1996 has allowed more accurate monitoring of the catch and full compliance with the non-directed fishery regulation. This program is also used for the collection of biological data to monitor and assess the stocks in the future.

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