

Briefing Note Regarding Decision Rules for the Re-opening of Strait of Georgia Lingcod

Submitted to Marine Conservation Caucus

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A. Background

The Strait of Georgia (Figure 1) lingcod population once supported a large commercial fishery supporting landings over 3000 t and for much of the 100 year history supporting annual catches in excess of 1000 t (Figure 2). Evidence suggests that lingcod biomass is still a small fraction of its historical abundance (<1-15%). In an effort to restore lingcod populations, Fisheries and Oceans Canada closed the commercial fishery in 1990. Due to ongoing conservation concerns, a similar closure was applied to the recreational fishery in 2002. Anecdotal evidence from the sport-fishing fleet has supplied information of local population increases in lingcod, and as a result there is political pressure to reopen certain areas of the Strait to recreational fishing.

B. Purpose for Briefing Note

The purpose of this briefing note is to outline the decision rules (i.e., what biological conditions) under which the MCC would support the re-opening of Strait of Georgia lingcod fishing. In short, the current conditions do not justify a reopening of the fishery. Note that issues of allocation are not addressed (i.e., commercial vs. recreational).



Figure 1: Map depicting Fisheries and Oceans (DFO) Statistical Areas for the South Coast of British Columbia. For the purposes of this briefing note, the Strait of Georgia is defined by DFO Statistical areas 13 (Sub-areas 13.1-13.5 and 13.15-13.21), 14-19, 28 and 29.

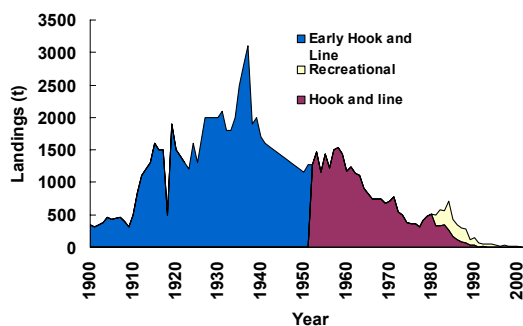


Figure 2: Recorded landings in the Strait of Georgia from 1900 to 2000. It is unknown what percentage of the landings prior to 1951 were strictly in areas 13-19, 28 and 29.

C. Summary of Information

Historical landings: well described for Strait of Georgia proper from 1951. Prior to 1951 it is not possible to say with certainty what % was actually in subareas 13-19, 28 and 29 but likely a large percentage. The biomass of lingcod would have needed to have been very large to sustain such large catches for so many years.

Historical population: much greater (current population likely between 1 and 15% of historical abundance).

Current biomass of population: unknown

Indices of abundance: commercial CPUE 1963-1990, creel survey CPUE (considered to be very weak), DFO lingcod fish surveys CPUE (huge variance), young of the year trawl data (sporadic and limited).

Trend: some limited knowledge of upward trend in the northern parts of the Strait of Georgia no indication of a recovery in the southern statistical regions.

Age structure information: limited

Reason for slow recovery: Unknown

D. Minimum Conditions Required for a Reopening

1. Minimal fishing mortality: Demonstrated evidence that harvest mortality would fall well below natural mortality of 65+cm lingcod (i.e., minimum legal size).
2. Age structure distribution indicates that the population is 'mature' throughout the Strait.
3. Size window: If or when the fishery is reopened, retention of lingcod should fall into a size window between 65 and 90 cm.¹ At present time there is only a lower size limit of 65cm. There is evidence that larger lingcod are more effective in protecting their egg masses, avoiding predation, and producing more gametes. Females are also larger than the males and therefore an upper size limit for retention will assist in protecting the spawning population.
4. Inshore rockfish protection: Continued moratorium on Strait of Georgia lingcod until 50% of inshore rockfish habitat protected, otherwise the directed fishing for lingcod will place obvious pressures on inshore rockfish. Protection of inshore rockfish habitat will also protect lingcod habitat.
5. Monitoring and Index sites: Relative abundance indicators clearly showing a consistent trend in all statistical areas.

E. Current Conditions

The present level of understanding of Strait of Georgia lingcod populations is insufficient to warrant an opening. Assuming that there is some marginal increase in the population in the northern region of the Strait of Georgia, there needs to be at least four years of careful monitoring before we risk jeopardizing 15 years of recovery efforts.

¹ 90 cm is the historical mean size of mature females in the Strait