

Pacific Herring

Pacific herring (*Clupea pallasii*) is a pelagic species found in the inshore and offshore waters of the North Pacific.¹

The Herring Fishery

Herring are commercially harvested by two types of gear, gillnet and purse seine.² During gillnetting, fish are caught when they swim into a suspended net and become entangled. Purse seining involves a net which can be closed, or "pursed" to trap a school of fish.

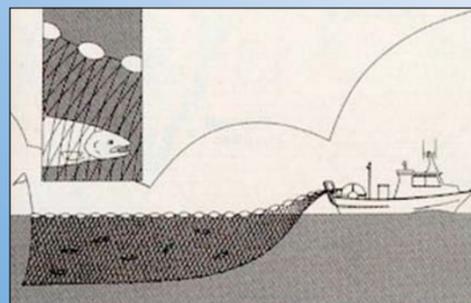
Herring Stock Assessment Areas

On Canada's west coast, commercial herring fisheries take place in five major stock assessment areas, which are illustrated in the accompanying map: Prince Rupert District (PR), Central Coast (CC), Haida Gwaii (HG³), West Coast of Vancouver Island (WCVI) and Strait of Georgia (Gulf/SOG) (see table).¹ Commercial herring catch data exist from 1988 to 2008 (gillnet and seine gear) but with data quality limitations. Due to these limitations, fishing effort could not be mapped for the purpose of this atlas.

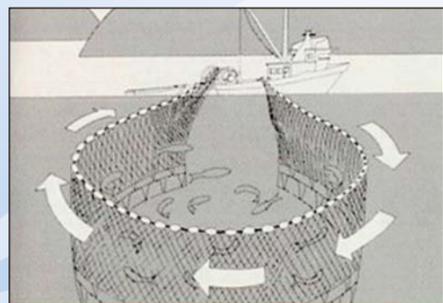
Herring areas and corresponding Pacific Fishery Management Areas (PFMAs) in BC (areas in bold fall within PNCIMA)

Herring Stock Assessment Areas	PFMAs
HG	Area 2E
PR	Areas 3, 4 and 5
CC	Areas 6, 7 and 8
SOG	Areas 13, 14, 15, 16, 17 and 18
WCVI	Areas 23, 24 and 25

Specific fishing locations are determined by major concentrations of fish and the potential for the highest roe yield.⁴ These stocks fuel the four major commercial fisheries for herring including roe herring, spawn-on-kelp (SOK), food and bait, and special use. In each stock assessment area, a maximum harvest rate (20 percent) of forecast returning biomass is set.¹ Stock assessments are based on biological samples of the population age composition, average weight-at-age, historical catch data, and assessments of spawn

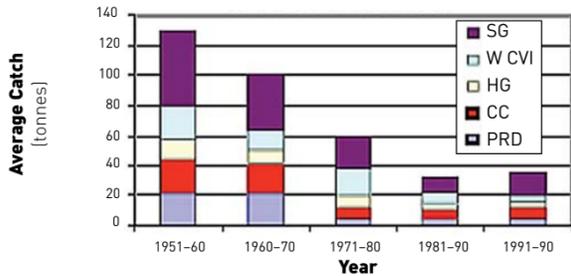


Herring fishing by gillnet. Illustration: Fisheries and Oceans Canada



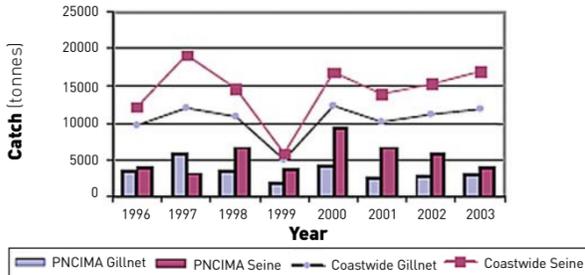
Herring fishing by purse seine. Illustration: Fisheries and Oceans Canada

Historical Herring Catch in BC Coastal Waters



Historical yearly average for the commercial herring roe fishery by stock assessment area.¹

Roe Herring Catch Gillnet and Seine PNCIMA vs. Coastwide



Recent yearly catch for the commercial herring roe fishery by gillnet and seine.¹

distribution and intensity throughout the coast. Total allowable catches that are within the 20 percent harvest rate are also set for each herring fishery.⁴ Historical and recent catches are presented in the graphs.¹

The roe herring fishery occurs in all major stock assessment areas of BC and involves both gillnet and seine fishing. The commercial SOK fishery occurs in all areas of the BC coast except the Strait of Georgia/Gulf. The food and bait fishery is conducted by seine only and takes place exclusively in the Strait of Georgia/Gulf area including Area 13, the only area in SOG falling within PNCIMA. The special use herring fishery provides opportunities to utilise herring in alternative ways to the mainstream herring fisheries.¹

Material presented is drawn from the following literature reviews, which include primary references:
 1 MacConnachie, S., Hillier, J. and Butterfield, S. 2007. Marine use analysis of the Pacific North Coast Integrated Management Area. Can. Tech. Rep. Fish. Aquat. Sci. 2677: viii + 188p.
 2 Fisheries management plans are available online at www.pac.dfo-mpo.gc.ca/ops/fm/Herring/default_e.htm
 3 Please note that the Haida Gwaii area may be referred to as either "HG" or "QC" in relevant databases.
 4 Hillier, C.J., Gueret, D., Butterfield, S. and Pellegrin, N. 2007. Fish harvesting activities within the proposed Gwaii Haanas National Marine Conservation Area. Can. Manuscr. Rep. Fish. Aquat. Sci. 2803: vi + 65p.

