

Pacific Sardines

SPECIES

Pacific Sardine (*Sardinops sagax*)

OTHER NAMES

Pilchard, Sardine

ABOUT

Pacific sardines are small schooling fish belonging to the family *Clupeidae* (herring, sardines, shads, etc.). Sardines have a silvery iridescent body up to 35.5 cm (14 inches) in length. There is thought to be a single stock of sardines on the west coast, which migrates annually between California and the feeding grounds off Vancouver Island. It is the larger older fish that migrate to British Columbia (BC) waters to feed in the summer. Commercially seine-caught fish average 23 cm (9 inches) in length and 100 to 250 grams (3.5-to 9 ounces) in weight.



Sardines have a high fat content and have a stronger flavour than many other species of whitefish. The flesh is pink with a fine soft texture.

STOCK STATUS

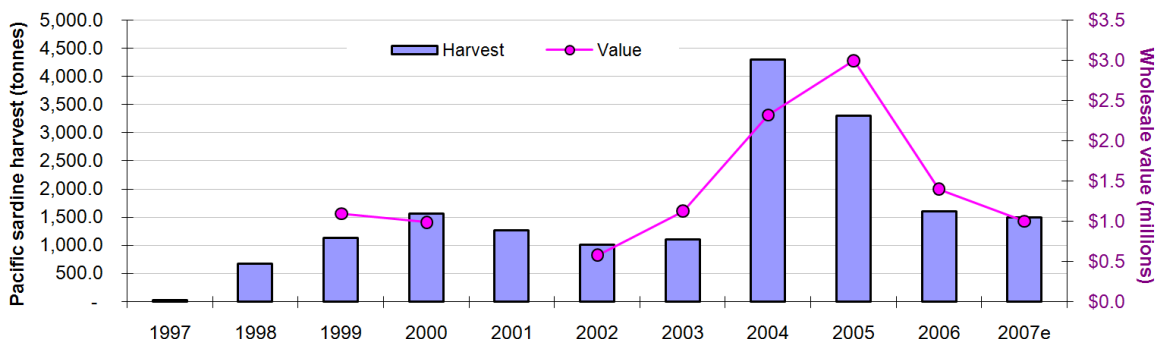
The large and dramatic fluctuations in the Pacific sardine population in the past are considered a consequence of high exploitation rates coupled with shifts in climate/ocean regimes. The population is currently thought to be near its historic abundance levels (*DFO - Fisheries Management*).

MANAGEMENT

BC's sardine fishery is managed federally by Fisheries and Oceans Canada (DFO). Hail-in and hail-out at designated landing ports are required and partial at-sea observer coverage is expected. 100% dockside catch validation is also required. Currently 25 commercial and 25 First Nations communal fishing licences are issued on an annual basis (*DFO - Fisheries Management*).

PRODUCT VALUE

1,500 tonnes of Pacific sardine was valued at \$1 million in 2007 (*BC Seafood Industry Year in Review*).



e: estimate

NOTE: 1997, 1998 and 2001 wholesale value data is confidential

LIFE HISTORY

Pacific sardines are small, schooling pelagic plankton feeders, and are found in the near shore and offshore areas along the BC coast. Reproductive maturity occurs between 1-2 years of age. Sardines may live as long as 15 years with spawning occurring every year. Sardines are multi-batch spawners with a two year old sardine spawning on average six times a year and the older fish spawning up to 40 times a year.

Most spawning occurs in April and May though the season extends from January to June. Spawning occurs during the first part of the night. The free-floating eggs hatch in 3 days at 15°C. The larvae drift close to shore and in about 3 weeks metamorphose into free swimming juveniles. Young fish congregate in large dense schools inshore near beaches. Sardines have a fast growth rate and the females grow more rapidly than males.

Pacific sardines are highly migratory and move seasonally along the coast from their spawning grounds in southern California to feeding/spawning grounds off the Pacific Northwest and BC.

Predators include many fish like tuna, mackerel, hake, salmon, birds (pelicans, gulls, cormorant) and marine mammals (seals, sea lions, porpoises and whales).

PRODUCTS

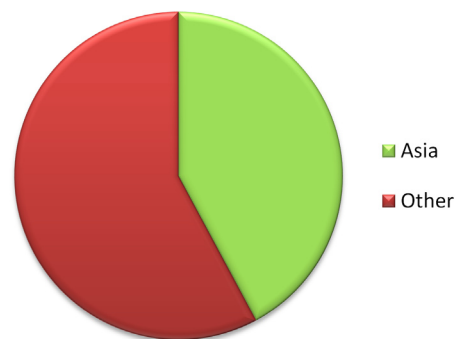
Pacific sardines are available fresh or frozen whole, butterfly or boneless fillets.

PRODUCT MARKET

Sardines are primarily exported to Japan as a food product and the balance sold worldwide as bait for high seas tuna fleets and as food for farmed tuna. There is a very small local market.

MARKET TREND

Markets in eastern Europe and Spain are growing.

**LINKS**

DFO - Fisheries Management Plans: www.pac.dfo-mpo.gc.ca/ops/fm/fishmgmt_e.htm

BC Seafood Industry Year in Review: www.env.gov.bc.ca/omfd/reports/index.html

Canadian Pacific Sardine Association (CPSA): <http://www.bcsardines.com/>

BCSeafood.ca: www.bcseafood.ca/index.php

Fish and Seafood Online: <http://www.ats-sea.agr.gc.ca/sea-mer/index-eng.htm>