



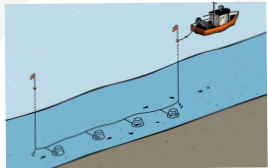
Aboriginal Aquaculture Association Finfish Facts Sablefish



Sablefish traps



Sablefish trapline



Sablefish • Black Cod (*Anoplopoma fimbria* - Latin name)

Black cod, or more correctly Sablefish, are not actually a cod at all. Their common name comes from the color of their skin and the appearance of their meat.

They are a deep-sea fish that range from southern California to northern Alaska. Some 2,5-4,500 tonnes are caught annually in B.C., while Alaskan fishers catch another 15-20,000 tonnes. They are caught by means of traps and long-lines in depths of 300 to 1,200 ft. The fish spawn from January to March at great depths, with each female Sablefish usually producing between 60-200,000 eggs. Some larger (over one meter long) females have been recorded to lay up to one million eggs. After hatching, the tiny juveniles swim up to the surface, where they start feeding on tiny plankton.

Did you know....

Sablefish can grow to as much as 30 lbs or more, although wild caught dressed fish typically weigh between 5 and 10 lbs.

They have an extremely high fat content, up to 20 percent, and are one of the seafoods highest in omega-3 fatty acids.

Black cod are considered a delicacy in many countries for its sweet, rich, buttery taste and its flaky texture.

British Columbia Seafood Production for Wild Sablefish (2008 – 2010)

	2008P	2009P	2010E	% change 09/10
HARVEST ('000 tonnes)	3.1	2.6	2.4	-7.7
LANDED VALUE (\$ millions)	23.0	24.0	22.5	-6.3
WHOLESALE VALUE (\$ millions)	31.5	30.0	26.0	-13.3

Source: <http://www.env.gov.bc.ca/omfd/reports/YIR-2010.pdf>

Opportunities for cultured Sablefish:

Research has been carried out in B.C. on Sablefish culture for over 30 years, and this specie is now ready for commercial culture. With the decline in the wild harvest, Fisheries and Oceans has also identified Sablefish as a priority candidate for commercialization in B.C.



Hatchery broodstock



Farmed Sablefish



Sablefish fillet



Nutrition Facts for Sablefish:

(100 g serving, raw, edible portion)

Energy	195 cal
Protein	13.4 g
Saturated fat	3.2 g
Cholesterol	49.0 mg
Sodium	56.0 mg
Omega-3	1.4 g

Source: Seafood Leader Buyer's Guide



How to grow Sablefish:

The production cycle looks like this:

1) Obtain juveniles from a hatchery:

There are currently two hatcheries for Sablefish in B.C. which have obtained Sablefish brood stock from an Aquaculture Allocation from the commercial fishery. The Sablefish juveniles are typically sold at a size of ~10-20 grams and the going rate has been \$4.00 each, although availability has been sporadic in recent times. A producer in Washington State has also shipped Sablefish juveniles to farms in B.C. Another hatchery for supplying future First Nation farms is a necessity.

2) Move juveniles to pens in seawater:

This can be done by totes in trucks, custom-made tank trucks or live-haul vessels- all equipped with oxygen and water quality monitoring systems. The juvenile Sablefish are typically vaccinated against one or more bacterial diseases after a few weeks in sea water.

3) Feed and care for the Sablefish for ~24-30 months:

Commercial feed is available in Vancouver at a cost of approximately \$ 1,500 per tonne. The Sablefish will grow fast up to a weight of approximately two pounds (~1 Kilo) at which time the feed intake slows down- coinciding with the time the fish would typically migrate from its birth place in fjords to deeper water off the coast. This represents a challenge for the farm technicians, but experience has led to the improvement in feed conversion rates.

4) Harvest fish using live or dead haul vessel to processing plant:

There are a number of vessels that offer this service in B.C., and for smaller volumes a farm can use insulated totes with ice. The fish is starved for a few days before slaughtering, and they are stunned and bled before arrival at the processing plant, unless the plant is located close to the farm.

5) Sell the Sablefish yourself or through existing brokers:

The brokers typically charge 3-4% of the selling price in fees, although this is open to negotiation. The long-term goal of First Nations involved in Sablefish (or any other type of product from aquaculture) should be to sell their own production.

Why Sablefish is a suitable fish for culture in BC:

- Ready market willing to pay a high price
- Farmed Sablefish doesn't have parasites which means that it, unlike its wild caught counterpart, can be used for sushi/sashimi
- Good survival
 - i. Tolerance to algae blooms
 - ii. Tolerance to virus diseases (IHN, VHS)
- Improved Feed Conversion Rate (FCR); close to one kilo of feed used to produce one kilo of fish at the juvenile stage, and about 1.8:1 overall.

Some estimates suggest that an operation with 150,000 Sablefish/year in annual production would employ five people directly, and support another five fulltime equivalent (FTE) jobs in harvesting, processing, transportation, net lofts etc., generating revenue of some \$7.0 million at today's prices.

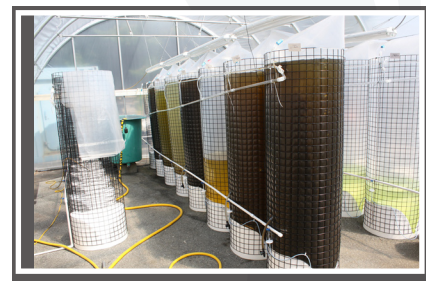
A potential opportunity also exists where First Nations could work with B.C. salmon farming companies to set up production at existing, idle farms, using surplus equipment. The AAA could help facilitate communication with interested parties.



Banner photos: Odd Grydeland and the Aboriginal Aquaculture Association



Aquaculture Research Laboratory



Plankton Culture Tanks

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