

Pink Salmon

Oncorhynchus gorbuscha

Onkos = hook

Rynchos = nose

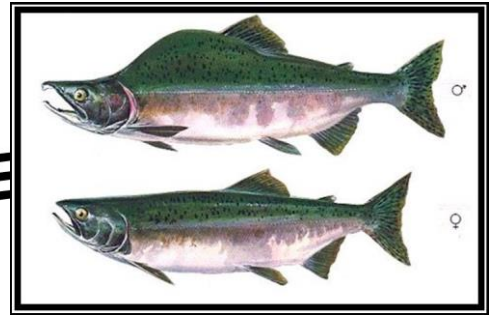


Image from <http://www.pac.dfo-mpo.gc.ca/>

Physical Description:

Pink salmon are the smallest of the Pacific salmon weighing an average of 3 to 5 lbs up to 12 lbs. They have a white mouth with a black gum line, almost no teeth in the marine phase, large oval spots on both lobes of the caudal fin, and large black spots on the back. Marine phase adults are a bluish silver color which changes to pale gray when they return to spawn.

Natural History

Pink salmon natural history can be described in general terms. These descriptions are central themes around which a great deal of diversity has evolved in pink salmon. For conservation purposes, maintaining diversity is key.

Spawning:

Pinks tend to spawn very close to saltwater because the fry move directly to estuaries and marine waters shortly after they are born. Spawning closer to saltwater reduces predation on the fry and increases survival. Adults die shortly after spawning.

Life Cycle:

Young pink salmon life stages:

- Alevin - salmon life stage between an egg and a fry. At this stage, they do not have a protective shell and are essentially small fish with an attached yolk sac from which to derive nourishment. After the yolk sac has been completely absorbed the alevin leave the redd.
- Fry - a juvenile salmon that has absorbed its egg sac. Pink salmon fry do not rear in freshwater. Immediately after emerging from the gravel, they move downstream to estuaries and rear there for several months before heading out to the open ocean. Because of this pink fry do not have parr bars and spots which are more visible in open water. Pink salmon have a fixed two year life cycle and in Washington and Southern British Columbia the primary runs occur in odd years.

Range:

Pink salmon undergo extensive migrations covering thousands of miles. They are dispersed

throughout the Pacific Ocean from California to the Bering Sea and from Russia to Korea. There are no significant spawning populations south of Puget Sound.

Diet:

Pink salmon feed on small crustaceans, zooplankton, squid, and small fish.

Status:

Pink salmon are the most abundant of the Pacific salmon. They are currently harvested via seine, gillnet, and troll fisheries and these are currently considered sustainable by salmon managers. There are no pink salmon ESUs (Evolutionarily Significant Units) listed under the Endangered Species Act or Species at Risk Act.

Threats:

The major threats for Pacific salmon have been identified as the 4 Hs:

- **Harvest** - Pacific salmon have historically been, and continue to be, an important target species for recreational and commercial fisheries. Harvest is being controlled more today but might still be a factor where populations are small and weak.
- **Habitat** - chemical pesticides can alter the ‘smell’ of the stream disrupting homing mechanisms. Soaps and detergents can clog the gills of fish and result in high mortality. Copper from brake pads can be toxic to salmon in fresh water. Land-use activities such as logging, road construction, urban development, mining, agriculture, and recreation result in habitat modification. Examples of habitat modification include: alterations in stream banks, changes in stream water temperatures and water quality, reduction in available prey, elimination of spawning and rearing habitat, and removal of native vegetation which results in erosion and increased sedimentation. Most western states have lost 80 to 90 percent of their historic riparian habitat. Over the past 200 years, the lower 48 states have lost over 50% of their wetlands.
- **Hydro** - dams have reduced or eliminated accessible habitat and resulted in high mortality of salmon. Changing the natural flow of dammed rivers results in increased water temperature and reduced water flow necessary for migration, spawning, rearing, sediment flushing from spawning areas and transport of debris, all of which have a negative effect on salmon. Pink salmon are not as affected as some other salmon species because they rear so close to saltwater.
- **Hatcheries** - extensive hatchery programs were established to mitigate fisheries and habitat destruction. While hatcheries successfully provide fishing opportunities, impacts on wild salmon may include competition, genetic hybridization, and disease transmission. Fisheries that target mixed stock of hatchery and wild salmon can over harvest the wild fish. Hatchery fish have decreased fitness due to being fed pellets, and therefore not having to search for food, as well as being protected from predation.

Climate change is also a concern as it can increase the risk of diseases in wild salmon and reduce the quality and quantity of water in spawning habitat. Short term changes in weather such as El Nino and La Nina, which dictate rainfall levels, can have devastating effects on salmon populations for a given year. Additional information on threats to Pacific salmon can be found at <https://www.fisheries.noaa.gov/data-tools/west-coast-salmon-vulnerability-species-specific-results>.

Conservation Efforts:

The Puget Sound Partnership is the regional salmon recovery organization for Puget Sound salmon. They are focusing on protecting and restoring habitat, raising awareness, reforming hatchery management, and developing and monitoring an adaptive management strategy. More information about the Puget Sound Partnership can be found at <https://psp.wa.gov/>.

In addition, the Pacific Coastal Salmon Recovery Fund (PCSRF) was established by Congress in 2000 to support the restoration of salmon species. The fund is overseen by NMFS (also known as NOAA) and carried out by state and tribal governments. PCSRF grantees, such as the Washington Department of Fish and Wildlife (WDFW), contract with local watershed groups, conservation agencies, land trusts, and other entities to manage salmon habitat restoration projects. In turn, those agencies contract with local businesses and suppliers to carry out the work.

Fun Facts:

- Pink salmon are also known as ‘humpbacked’ or ‘humpies’ because of the hump developed by spawning males.
- Pink salmon received their name from the pink flesh they obtain eating krill and shrimp.
- Pink salmon were accidentally introduced to Lake Superior in 1956 and became an established population, spreading throughout the Great Lakes. They are the only population known to complete their entire life cycle in freshwater.

Sources:

http://www.fishwatch.gov/seafood_profiles/species/salmon/species_pages/pink_salmon.htm

<http://www.pac.dfo-mpo.gc.ca/fm-gp/species-especes/salmon-saumon/facts-infos/pink-rose-eng.html>

<http://wdfw.wa.gov/fishing/salmon/pink.html>

<https://www.fisheries.noaa.gov/species/pink-salmon>

<https://wdfw.wa.gov/species-habitats/species/oncorhynchus-gorbuscha>



Pink salmon photo by NOAA Fisheries

Created by Cindy Hansen
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Reviewed by Jim Lichatowich
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