

## Facts about Coho

### Description



*Spawning female coho. (Photo: Manu Esteve)*

Coho salmon (*Oncorhynchus kisutch*) are called silver salmon for their bright silver coloring in saltwater and early in their return to freshwater.

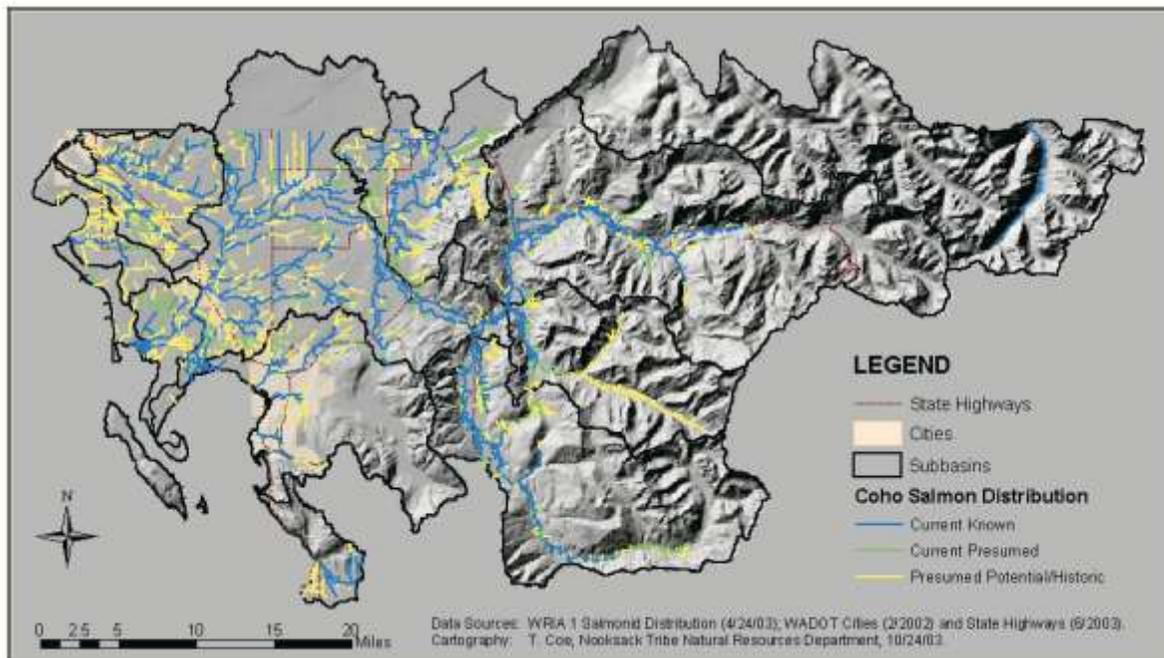
In the Nooksack, adult coho average 5 to 8 pounds and reach lengths of 24 to 30 inches. Both the male and female develop dark backs and heads with reddish to maroon sides during spawning. The males also develop a hooked snout and large canine-like teeth.

The parr marks (spots) on juvenile coho are oval, but narrower than the spaces between each one. They have little if any spotting on the tail and no spots on the dorsal fin. The leading edges of the anal and dorsal fins have a white stripe followed by a black stripe.

### Distribution

Coho are found throughout most of the creeks and rivers of the Nooksack basin. Having been released for decades from the Kendall Creek Hatchery in the North Fork, Skookum Creek Hatchery in the South Fork, and Lummi Sea Ponds in Lummi Bay, the coho of this region are considered to be of mixed origin (native and hatchery). They are a candidate species for listing under the Endangered Species Act.

Pacific coho habitat ranges from the Sacramento River in northern California to southeast Alaska and the Bering Sea.





### **Life Cycle and Reproduction**

Coho salmon typically spend half their life (18 months) in freshwater and half in saltwater.

In the Nooksack basin, adult migration upstream begins as early as July, generally peaking in October. However, coho are known to wait in the estuaries for the fall rains, to ensure there is adequate flow for their upstream migration. Spawning season for the coho is from October through January.

As with other Pacific salmon, spawning begins when the female selects an area, digs a redd (nest) and deposits her eggs in the downstream portion as one or more males fertilize them. After covering up the redd, she repeats this process until all of her eggs have been deposited and fertilized.

After the fry emerge, they remain in the river for a year, over-wintering in side channels, beaver ponds, and off-channel areas before migrating to marine waters. Coho spend only a short time in the estuaries to adapt to saltwater and forage for food before entering the ocean between February and July.

### **Habitat Needs**

Coho returning to their natal rivers wait for higher flow levels that allow them to pass through areas with obstacles such as logs or beaver dams.

The optimal spawning habitat for coho is clean gravel riffles in smaller tributaries of larger rivers. Coho are also found in varied habitats of coastal streams. Beaver dams, side-channels and off-channel areas provide for good rearing habitat for fry over-wintering in the river systems. Adults require in-stream cover in the stream or river as they hold prior to spawning.

Fry require areas with good riparian cover and high levels of dissolved oxygen, and are threatened by human habitat alterations such as road building and logging or development near streams, as well as the resulting increase in sedimentation that reduces these critical hiding areas and can smother redds and developing embryos.

Rearing juveniles tend to be very territorial and actively defend their feeding grounds from other salmon juveniles such as the coastal cutthroat.

### **Economic Value**

The Nooksack coho fishery supports both treaty and non-treaty commercial fisheries, as well as a popular freshwater sport fishery.

### **Current Status**

Coho of the Nooksack Basin are not listed under the ESA, but there are concerns about the health of the native population, and they are currently a candidate species for a federal listing.

### **Sources**

Alaska Dept of Fish and Game. 1995. *Coho* (from the ADF&G Wildlife Notebook Series).

Anchor Environmental, LLC. 2003. *Fish Periodicity in WRRIA 1*.

National Marine Fisheries Service. 1995. *Status Review of Coho Salmon from Washington, Oregon, and California*.

Smith, Carol. 2002. *Salmon and Steelhead Limiting Factors in WRRIA 1*.