Facts about Cutthroat

Description

Sea-run and resident cutthroat trout (*Oncorhyncus clarki clarki*) can both be identified by the read streaks on either side of the lower jaw and the dense spotting along the body and tail. In the ocean, the sea-run cutthroat has greenish-blue coloring along the back with silvery sides. Adult sea-run cutthroats are one to four pounds and up to 20 inches long, and are generally larger than their resident counterparts. They can be easily mistaken for steelhead or rainbow trout due to similar coloring, but can be distinguished by the presence of teeth on the tongue (hyoid teeth) that steelhead or rainbow lack.



Note the dense spotting on the body of this cutthroat. (Photo: Manu Esteve)

Other common names for the coastal cutthroat trout include sea trout, sea-run cutthroat, red-throat cutthroat, or harvest trout.



Distribution

Both resident and sea-run cutthroat are found within the waters of the Nooksack basin. Those that remain in freshwater are considered to be of mixed origin, having possibly interbred with hatchery cutthroat from past Lake Whatcom releases. The anadromous (migrating to the sea) sub-stock is native and wild in origin.

Cutthroat are the salmonid species with the widest geographical distribution, and they can be found almost everywhere that salmonids can survive.

Pacific coastal cutthroat range throughout the coastal plains of western North America, from southeastern Alaska to northern California.

Life Cycle and Reproduction

Like char and steelhead, the coastal cutthroat trout is iteroparous, meaning it can spawn more than once and may do so in either consecutive or alternate years. Second- and third-time spawners tend to produce more and bigger eggs than those spawning for the first time. Adults returning to freshwater for the first time may not spawn.

Anadromous cutthroat spawn in Whatcom County between January and July, generally upstream of coho and steelhead.

Like other members of the salmon family, the cutthroat female digs a nest or redd into the gravel with her tail and waits for a suitable male to spawn with at which time both will sink down into the redd and release their eggs and sperm. The female then covers the redd with more gravel and repeats the process until she has deposited all of her eggs and they have been fertilized by a male.

Cutthroat eggs hatch within six to seven weeks, and intragravel development continues for several months. The emerging fry migrate quickly to side-channels and backwater areas with instream cover where they will remain for the summer. The location for initial rearing is dependent on the presence or absence of other salmon species such as coho. If coho are present, cutthroat juveniles will use habitats away from the more dominant coho, but if alone, they tend to occupy pools within the stream.

Over-wintering fry are most abundant in pools situated near log jams or overhanging banks, migrating up and downstream until they outmigrate to the estuary as smolts between the ages of two and three years. The start of their downstream migration is timed with the onset of spring snowmelt, and has been observed in the Nooksack region from February through June.

Habitat Issues

Coastal cutthroat trout exhibit four life history types, three that are non-migratory and one anadromous (sea-run), although all have anadromous qualities and may or may not migrate regardless of the history of its parents. The three non-migratory types are *fluvial*, those whose spawning and early rearing occurs in smaller tributaries and major growth occurs in Mainstem rivers; *adfluvial*, where spawning and rearing occurs in streams with most maturation occurring in lakes or reservoirs; and *resident*, which spends all of its life stages in small headwater streams, often upstream of impassable barriers such as dams or falls.

All forms of cutthroat require similar habitat for spawning, incubation and early rearing: low-gradient and low-flow areas with riffles and pools for spawning, and large woody debris and overhanging banks for rearing. Sea-run (anadromous) cutthroat are also highly dependent on healthy tidal sloughs, marshes, and swamps during their time in the estuaries, since they rarely overwinter at sea and migrate back and forth from saltwater to freshwater rather than making extensive ocean migrations. In the estuaries, they feed on small schooling fishes and young crustaceans.

Economic Value

In 1905, the Lake Whatcom hatchery became the first state hatchery for coastal cutthroat production. Originally, distribution was only local, but today non-migratory coastal cutthroat from Lake Whatcom are used for stocking lowland and alpine lakes throughout the Puget Sound region for recreational fishing.

Current Status

The status of anadromous, native, wild populations is unknown for the Nooksack basin.

Sources

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