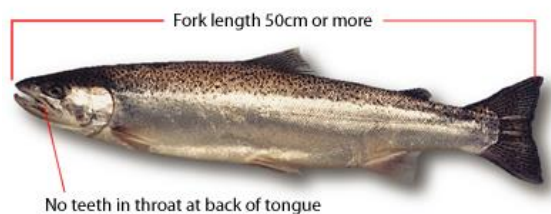


Steelhead Trout

By: Ahoura & James

Steelhead trout, or as their Latin name, *Oncorhynchus Mykiss*, *Oncorhynchus* are a species of trout that are found around British Columbia. This fish is in the trout family but as the biologists have found out recently this fish resembles the Pacific Ocean salmon more than any other trout, but they are still trouts. A lot of indigenous people ate and used this fish some of those are Chinookan of the Lower Columbia River, the people of the Plateau, the Slave of the Fort Nelson and the Tlingit.



The steelhead trout is around 50cm long which is about average for a trout. Trout can measure in length anywhere from 16cm to 2 meters. Steelhead trout are found in freshwater areas. They can live up to 11 years and reach up to 60 pounds in weight.

The steelhead trout can be found all over British Columbia. BC holds the highest number of Steelhead Trout rivers in the world, we also have more

wild Steelhead than any other place in the world. In BC, some of the best places to go fishing for Steelhead is the Thompson River, Dean River, and Skeena river. From personal experience, my dad and I would sometimes go fishing for steelhead underneath the Portman bridge in Surrey. But the habitat of the Steelhead is really depending on the time of year.

Detailed diagram of the steelhead trout:

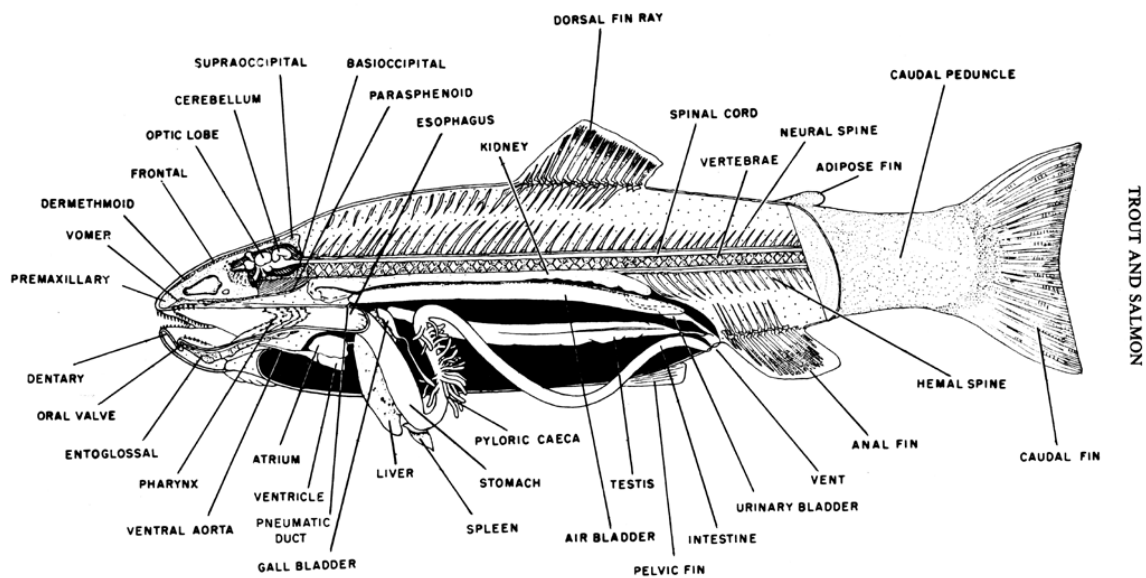


FIGURE 24—Anatomy of a trout.

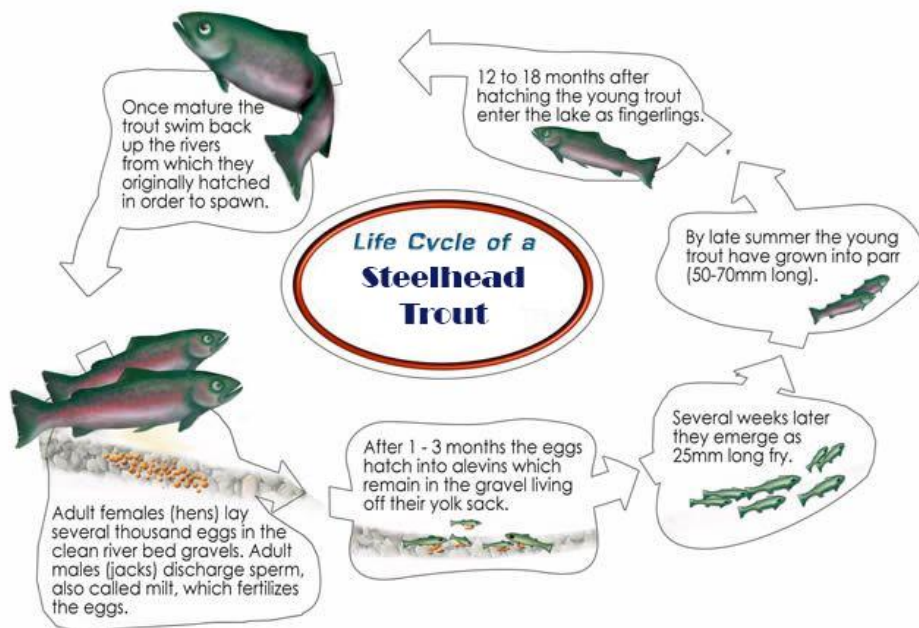
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Detailed diagram of the steelhead trout:

In the diagram above, we see the main part and organs of the Steelhead trout. Steelhead trout and Rainbow Salmon are also classed as the same species, this is because they have very similar appearances. The difference maker between the two of them is that unlike the Steelhead trout, the Rainbow trout is native to cold-water.



Steelhead trout life-cycle.



The diagram above represents the life cycle and reproduction process of a Steelhead trout. Steelhead trout are like us and are sexual organisms. Mating season for Steelhead trout usually comes occurs from January to April. Steelhead Trout are Anadromy. This means that they return to their birthplace to mate. Anadromy also includes Steelhead being able to return to the ocean after they mate and reproduce, so that they can live to reproduce another day.

During spawning, the fish will lay their eggs on gravel bottoms of freshwater tributaries. The female digs out a hole called a redd. The preferred depth for steelhead spawning is 6 in to 14 in. She then lays the eggs, and a male fertilizes them. The females will then cover the eggs with the gravel. Depending on the size of the female she may lay up to 9000 eggs. The females then bury the eggs in a foot of gravel. The eggs remain in the gravel until they hatch. Unlike Salmon who can only spawn once, Steelhead may return to the ocean, and come back up streams several times for spawning season.

How the steelhead trout depends on other species:

Steelhead trout are a unique species. Individuals develop differently depending on their environment. All steelhead trout hatch in gravel-bottomed, fast-flowing, well-oxygenated rivers and streams. Some stay in fresh water all their lives and are called rainbow trout. Steelhead trout that migrate to the ocean typically grow larger than the ones that stay in freshwater. They then return to freshwater to spawn. Their babies eat mostly tiny organisms called zooplankton. Over the next few years, they grow up, eating mostly insects and worms. So, they are dependent on all the tiny organisms which they eat as a child.

How do other species depend on Steelhead Trout?

Steelhead Trout play a vital role in their surrounding eco-system, they provide food for animals such as Bears, preying birds, and Brown Trout. Most of all, they are consumed by people like you and I. Bears will depend on eating Steelhead because they are important for their pre-hibernation diet. Birds on the other hand, will take the Steelhead trout back to its nest after killing it, so it can feed it to their young. We can say it's vital for the birds because without the steelhead, a big part of the hatchlings diet is missing. For the Brown Trout it's a matter of survival, to why they eat their fellow trout, this same reason goes for humans. Although some people enjoy eating Steelhead Trout, personally I would only eat it if I had no other options and I had to as a last resort.

Some abiotic features that have affect upon the life the Steelhead trout are the clarity of the water, temperature of the water and population of the area they live in. Fish have what's called a 'Tolerance Level', this means the temperature of the environment that the fish lives in. For example, to put a goldfish in cold water fresh out of the tap is basically homicide. Fish need to be in water that fits their preferred environment. So, for the Steelhead Trout, the temperature needs to be in the range of 9-25° C.



Above Left (Traditional Weir for catching Salmon)

Above Right (A chief returns a salmon to the water)

The Coast Salish people of British Columbia had always eaten Salmon and treat it with great kindness. They recognized the importance of the fish to their environment, and how each of their people, had a responsibility to preserve as much life as possible, and to use sustainable ways to keep the Salmon population thriving. One of these ways, was to use every part of the fish, after killing it. The Coast Salish people believed in making use to every part of the animal whose life you took. For example, they would skin, cook, and make use of every part of the fish, even the bones, where used in stewing. In the image above on the left side, that's what was called a "Salmon Weir". Salmon weirs were commonly used by the Coast Salish people to funnel the Steelhead, or any other seasonal fish, into a confined space where they could fish into. What would happen was when the Steelhead or other types of fish, would swim upstream to lay their eggs, the weir would practically trap them, making easy picking for the First Nations.

Although the Coast Salish people used this tactic affectively, they also knew that their Salmon resources would run out if they overfished and didn't respect the fish, so to combat this, they brought up their young to respect and identify what is acceptable and wrong, and how to keep a sustainable way of life.

Today, an estimated number of 56,000 Coast Salish people live in Canada and the USA combined. British Columbia is still populated by the people of the Coast Salish Nation and although a rough number can't be assumed, we do know how todays First Nations farm and live off the land. Today's generation of Coast Salish people still consume the same diet that use too and have adopted modern styles of fishing and hunting. It's general standard today for Coast Salish people to fish with a rod and bait, just as you and I. Although they may have adopted more modern techniques, they still abide by the rules and respect that their people had been brought up with. The Coast Salish people continue to treat all animals with the respect and thoughtfulness their predecessors did. It's not out of the ordinary to sometimes see Coast Salish people using traditional farming techniques like the weir, but it is less common.

Steelhead Trout can be found on plenty of dinner plates in the British Columbia area. Steelhead aren't really used for much purpose, but on the odd occasion, if the fishermen is desperate enough, they can be cooked and eaten, but luckily for the steelhead, they find themselves not being the number one choice of fish. Steelhead to make a good addition in salad, and given proper care, can taste good as a lemon roasted steelhead. Steelhead are one of the healthiest seafood you can eat, they are packed with lean protein, minerals, vitamins, and omega-3 fatty acids. Steelhead are a good alternative to other seafood if you are on a diet and can provide the nutrients you need to be healthy.

Lake Lois is home to a local Steelhead farm called WestCoast Fish Culture. Lake Lois is located next to Vancouver Island in BC and was founded in 1973 by a man named Ward Griffioen. WestCoast uses no antibiotics or hormones in their Steelhead, and they have located the farm in coastal BC away from any industrial or agricultural waste. WestCoast has directed their attention to creating a sustainable environment for the fish and investing into new novel technology. WestCoast are the first farm along the west coast to bring recirculation systems to salmon hatcheries. WestCoast are also the first to process their waste into to process heat WestCoast also has a fully closed containment area for their fish, they are also an Ocean Wise approved farm and are a suggested product by the Vancouver Aquarium and by Ocean Wise.

The first nations people usually used the fish for feeding purposes and not much else, this fish didn't have any special features that caught the eyes of the first nations.

The steelhead trout had cultivating ways that helped them become what they are now a steelhead trout, and the methods they used were, leaving their original freshwater home as a juveniles and migrate long distances in the ocean where they grow to maturity before migrating back to their original home waters.

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