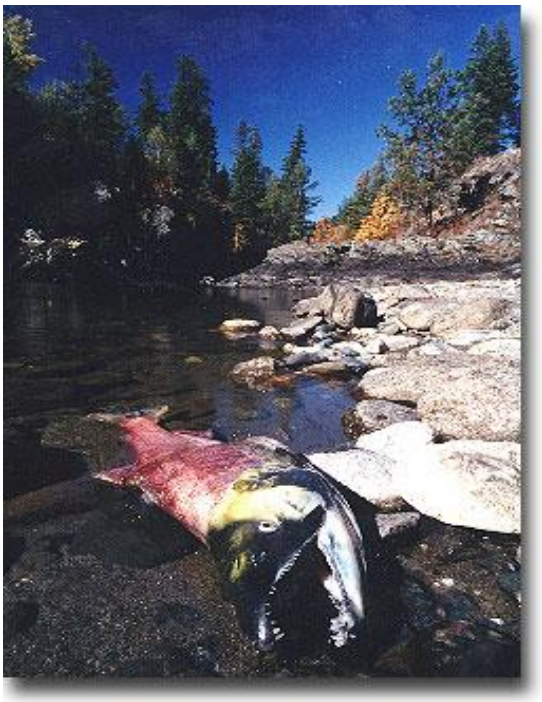
access becomes available. Rainbow trout and steelhead did not arrive from two distinct evolutionary lines!

Grizzly sow & cubs feed on salmon Atnarko River Wanda Kapusta

We much to learn yet about the life patterns of the salmonid. One thing we do know is that maintaining healthy stream habitat is vital for all of the salmonids species survival. To find out more about these facinating fish visit our website www.ccconserv.org or contact a local Fisheries & Oceans office.



The Journeys End Paul Welch

***Species are ranked in BC by their risk of extinction**:
Red Listed means the species is **endangered, Blue Listed** is a species of **concern** due to characteristics that make them sensitive to human activities and/or natural events. All reference to Red and Blue listings refer to the Province of BC's Listings.

For more on **Salmonids of the Cariboo Chilcotin**
www.ccconserv.org , or contact the
Cariboo Chilcotin Conservation Society at 398.7929
or the **Scout Island Nature Centre at 398.8532**

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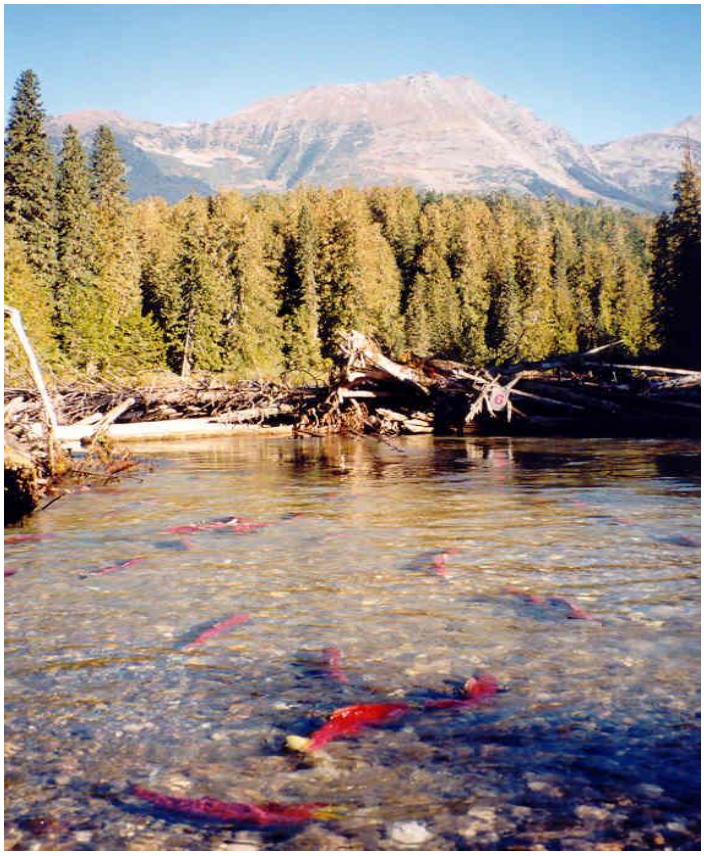
SALMONIDS
of the Cariboo Chilcotin

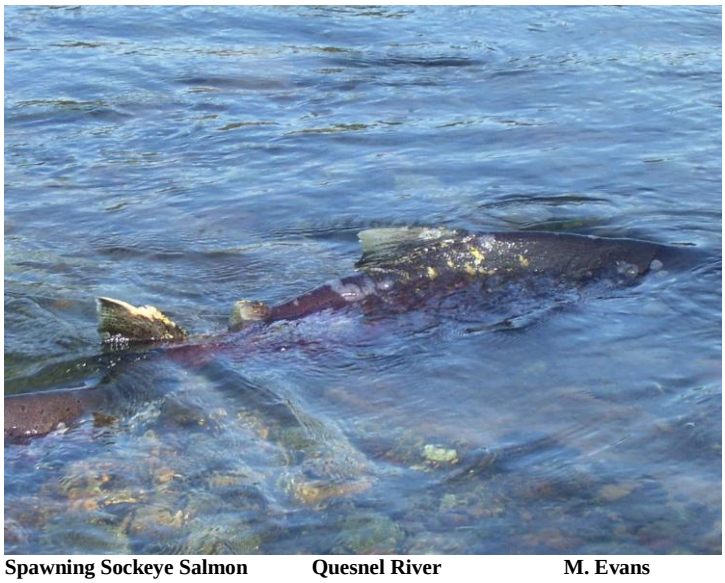
Salmon play a vital role in the health of the ecosystems of the Cariboo Chilcotin. For thousands of years they have provided food for First Nations peoples. Whether you are watching grizzly, bald eagles, or black bear fishing for salmon along the Atnarko River, Quesnel Lake, the Bowron Lakes chain, or Horsefly River or Lake the enjoyment of seeing the lifecycle of a salmonid in completion can not help but bring awe.
From the land locked Kokanee and trout (including Whitefish, Rainbow Trout and red listed* Bull trout) to the anadromous (those that hatch in freshwater, migrate to the



Sockeye salmon spawn at Mitchell River Paul Welch

sea and when mature return to freshwater to lay their eggs) salmonids are an important food source for wildlife and humans alike. One feature that distinguishes salmonids from other fish is the presence of an adipose fin (located along their back between their dorsal and caudal or tail fin). Their strong caudal fin propels the salmon forward through rough water, strong currents and waterfalls, in order to travel from the ocean to their hatching grounds where they release eggs and sperm. Female salmonids use their tails to dig the redd (hollow) where they lay their eggs. She may build several redds and once her eggs are fertilized, she covers the nest with gravel. Shortly after spawning the adult salmon will die and be eaten by other fish, birds, and numerous other wildlife species, distributing valuable nutrients from the ocean to our region.

Over the winter the young salmon begin to grow inside the eggs in their den of gravel. Only one in ten will survive. If the water gets too hot or cold, stops running (providing the egg with air absorbed through the egg wall) or dirt smothers the egg, it dies. In spring the fry (young fish) emerge, feed and grow in the stream, river or lake of their birth for up to three years. They are preyed on by ducks, herons and other fish predators. Those that survive will find their way back to the ocean where they will feed on abundant plankton, shrimp, crab, and small fish. Depending on their species, the salmonids spend from one to seven years at sea, feeding and growing. Once they return to freshwater, journeying back to their native spawning grounds, they do not eat. Living off stored body fat, these salmon battle their way home, arriving torn and scarred, most of their energy spent.



Spawning Sockeye Salmon Quesnel River M. Evans

Each species of salmon have different spawning habits and are unique in appearance. The sockeye salmon, whose name is believed to be derived from the First Nations name "sukkai", spawn in late summer and through the fall. As they travel home to spawn, the sockeye turn a brilliant scarlet red with pale green heads. The sockeye juveniles are dependent on lake ecosystems to feed on zooplankton for the first two years of their lives before migrating to the ocean. Chilko and Quesnel Lakes represent the most significant nursery lakes in the region where millions of juveniles from a variety of rivers, such as the Mitchell, Horsefly, and Chilko, are reared annually.

Chinook salmon, the largest of the salmon, are also called spring salmon because some populations return to their natal streams in the spring. Most of the Chinook over-winter in their natal stream before migrating to the ocean in the second spring of their life. Many river systems have more than one stock of Chinook, some rivers having spring, fall and winter runs. When spawning the Chinook becomes very dark in colour, some almost black.

Pink salmon, the smallest of the salmon species, have a short life span of only two years. Soon after they emerge from the gravel spawning beds, the young pinks migrate to the sea.

Two very unique stocks of pink salmon may use the same stream for breeding. Spawning habitat ranges from small

Spawning Pink Salmon or 'Humpy' Hawkes Creek Don Evans

tributaries of the Fraser Mainstem, such as Churn and Williams Lake Creeks, to larger rivers such as the Quesnel, Chilcotin and Fraser. The Fraser River has a predominately larger run of pinks in odd-years. The mature males are known as 'humpies' due to the large hump they develop on their backs during spawning.

Our region is home to one of five Interior Fraser Coho salmon populations identified by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) designated as a unit. Spawning in the streams emptying into the Fraser, the young Coho then spend the following year of their lives feeding and growing, preferring the cool water (15celcius or less), and heavy vegetation provided in these streams. Time of spawning for Coho occurs from late

Spawning Interior Fraser Coho Ernest Keeley

October to mid-January. COSEWIC's concern is that the Interior Fraser Coho distribution has become too fragmented and that the genetic exchange within the populations will not be sufficient for their long-term survival.

Steelhead trout are an anadromous form of rainbow trout. Unlike other salmon, steelhead do not necessarily die after spawning and may spawn more than once. Anadromous steelhead trout can convert to resident populations when drought events or damming of rivers blocks their access to the ocean. As well, rainbow trout can convert to anadromous if ocean