



Eggs & Alevins

Ecology

- Eggs are generally buried in redds, with the eggs at least 20 cm below the river bottom.
- Spawning rivers vary significantly in temperature, from less than 1000 Degree Days (DD) in some rivers to more than 2500 DD in others.
- Chinook salmon eggs require, nominally, 500 DD to hatch.
- Hatching may occur late in the autumn in warmer rivers, or much later in colder rivers.
- The development of alevins has not been studied in the Yukon, but requires, nominally, 500 DD between hatching and when they begin the process of leaving the river bottom.
- Emergence from the river bottom may occur between early May and late June, depending on the temperature of the natal stream or river.
- The fork length (distance between nose and tail fork) of juveniles at emergence is 35 – 38 mm.
- Emergent juveniles are found on the bottom in still-water areas such as the advancing margins of rivers and other low-velocity habitats.

Potential Limiting Factors

- Natural (e.g., permafrost-related slope deflation) and anthropogenic (e.g., placer mining) releases of sediment leading to sands/silts filling redds post egg deposition reduce egg-to-fry survival.
- Parentage and location within a basin can be important factors influencing egg-to-fry survival. Their relative influence is likely to vary as a function of the magnitude of sedimentation, high flows and scour during incubation (Roni et al. 2016).
- Effects of beaver dams in spawning streams after egg deposition specifically the conversion of stream to pond and reductions in oxygenation of redds during incubation.