

The Long Journey of a Chinook Salmon

Chinook salmon in the ladders at Bonneville Dam are completing an amazing life cycle. Chinook are anadromous fish, which means that they migrate from the ocean to fresh water when spawning. Dams hamper this migration, so the U. S. Army Corps of Engineers takes steps to protect these fish.

Let's follow the life cycle of a chinook salmon:

1. Eggs in the Stream

Salmon eggs develop in the gravel bottoms of streams that feed the Columbia and Snake rivers. These eggs are bathed by cold, clear water which provides oxygen. Some streams may be flooded by lakes behind dams. Government agencies, including the Corps, provide funding to restore streams, build and operate hatcheries, and create new spawning areas.



2. Eggs Hatching

Eggs hatch in the spring. The newly hatched fish, called alevins, stay in the gravel absorbing their yolk-sacs. They soon move out of the gravel to feed on river food.



3. Fingerlings Swimming to the Ocean

When the young salmon, called fingerlings, become free-swimming fish, they spend two to 18 months in the river. . Traveling at night and near the shoreline to avoid predators, the fingerlings take advantage of spring runoff to migrate to the ocean where there is more food. Because dams slow this spring runoff, the Corps releases water from the reservoirs. This flow helps fingerlings move more quickly on their journey to the ocean.

4. Passing Turbines at Dams

Fingerlings must pass dams on their way to the ocean. Pressures caused by spinning turbines and predators near the dams could kill 15 percent of the migrating fingerlings. The Corps has installed fish bypass screens on the powerhouses to help solve these problems. These screens guide fingerlings safely around the turbines so they can continue their migration. The Corps also catches fingerlings upstream and ships them past the dams by barge or truck.

