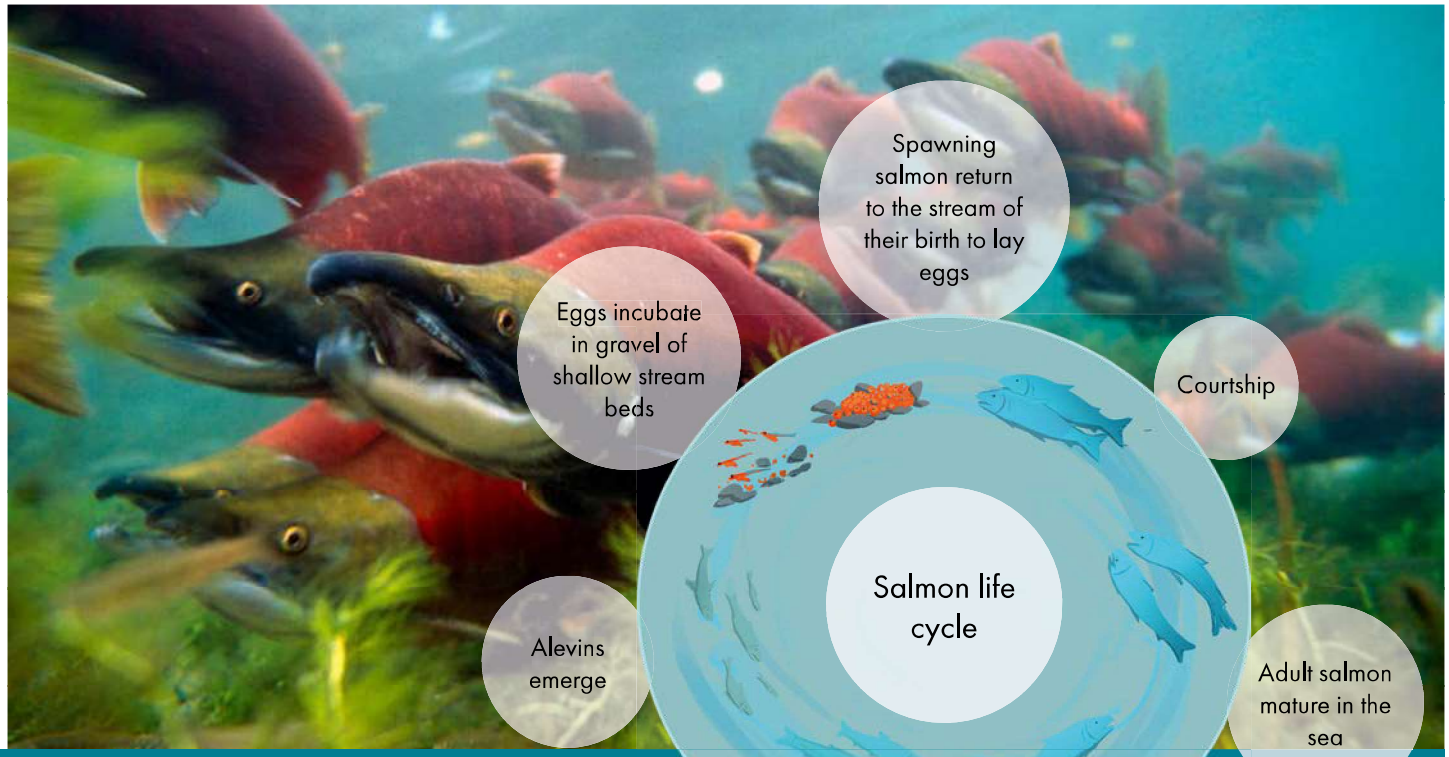

MEET THE LOCALS: PACIFIC SALMON

Pacific salmon, as the name suggests, live for most of their life in the Pacific Ocean. They begin and end their life in fresh water, however, often traveling for thousands of kilometres in their lifetime and yet returning to the river of their birth. It's still a mystery exactly how salmon find their way home, but they seem to navigate by the stars, sense electromagnetic currents and use their strong sense of smell.

Salmon start out as fertilized eggs in gravel at the bottom of streams and lakes far from the sea. After hatching they swim downstream to the ocean where they live for many years, growing into large adults. Once fully developed their bodies change so that they can move from salt water to freshwater and they migrate upstream to reach the stream or lake in which they hatched. There they will spawn and lay eggs for the next generation.

When living in fresh water all salmon need a flow of clean, cool water. Both young and older salmon rely on streams and river features: pools and riffles. Pools are areas of a stream or river where the water is deep, slow moving, with silt or clay on the bottom. These allow salmon to hide from predators or relax in cooler water. Riffles are areas of a stream or river where the water is shallow and fast moving, with gravel or rocks on the bottom. Salmon rely on these for laying their eggs, and the flow adds oxygen to the water.

Unfortunately, when humans change the flow of a river by building dams, changing the course of a river or making it run through concrete channels, the habitat is changed so that salmon find it harder to survive and to travel up and down stream to complete their life cycle.

Dams create barriers to young salmon migrating to the ocean, and for adult fish returning to spawn. They also affect the way water moves down a river, by changing the amount and timing of flow, and its temperature and chemical characteristics. Dams also change upstream habitat from a river into a lake, where salmon become easy for predators to catch. Some dams have 'fish ladders' to give a way for salmon and other migrating fish to pass, but even the best of these still let fewer salmon through, and don't help with the other changes that dams cause to the freshwater habitat.

Wild salmon is an important source of food and income for many people, and a vital part of the freshwater and ocean ecosystem. We risk losing them if we don't stop interfering with the natural flow of freshwater.