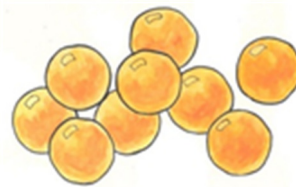


Coho Salmon Life Cycle

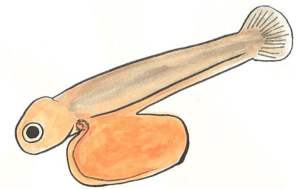
Use the information from this reading (or from the Salmon Life Cycle Video) to fill out the Salmon Life Cycle Worksheet.

Coho salmon are a special kind of animal at Westminster Woods. They are an endangered population. That means there are very few of them. Without help, they may disappear from this area. To know how to help coho salmon, we need to know about their life cycle.

A coho salmon begins its life inside an **egg**. At Westminster Woods, the salmon live in Dutch Bill Creek. The eggs are hidden under rocks and gravel in the creek. When the egg hatches, the young salmon has a yolk sack. This stage of the life cycle is called **alevin**. The alevins stay in the protection of the gravel until they are bigger. They live on the energy from their yolk sacks.

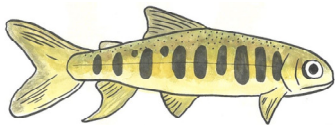


Coho Salmon Eggs



Alevin

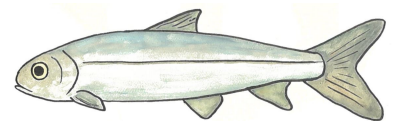
As the alevins grow, they become **fry**. The fry live in pools in the creek for almost a year.



Fry

They hunt small creatures to eat and hide from predators. During this time, they become imprinted on their home creek. Using their sense of smell, they learn the mineral content that makes their home unique. This will be important later in their life cycle.

During the next stage of their life cycle, they are called **smolts**. When the winter rains return, they begin their journey down the stream. Salmon from Westminster Woods swim down Dutch Bill Creek to the Russian River. They follow the Russian River toward the Pacific Ocean.

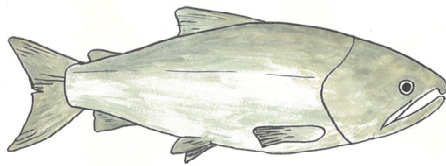


Smolt

Salmon are important to the ecosystem throughout their whole life cycle. In the river, they may become food for many kinds of creatures. Animals like otters, raccoons, osprey, and kingfishers eat salmon. Where there are more salmon, there are more of all kinds of animals.



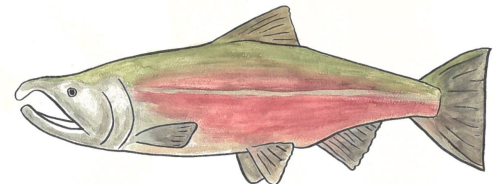
Where a river meets an ocean is called an estuary. In an estuary, salt and fresh water mix. Here, the bodies of the smolts adapt to life in salt water. The smolts gather in groups for protection from predators. Predators include seals and sea lions, which depend on the salmon to survive. After their time in the estuary, the coho salmon swim out into the Pacific Ocean.



Adult

Adult coho salmon spend about two years in the ocean. They try to avoid predators while hunting fish and other sea creatures to eat. They take in lots of nutrients and energy from their prey. This helps their bodies grow up to nearly three feet long.

After about two years, adult coho salmon gather near the mouth of the Russian River. In December and January, rainstorms fill the creek and river. At this time, coho salmon swim back upstream. This part of the life cycle is called the **spawning** phase. The salmon use their powerful sense of smell to get back to near where they were born. They swim up the Russian River. Then they find their way back to Dutch Bill Creek, until they reach their birthplace at Westminster Woods.



Spawning Adult

After arriving back near where they were born, salmon spawn. A female salmon uses her tail to brush gravel aside, making a depression. Then she lays her eggs in the nest, or redd. A male salmon swims beside her to fertilize the eggs. Then she covers the eggs with some gravel to protect them. Continuing upstream, the salmon will make more redds, giving as many offspring as they can a chance at surviving.

Spawning is very exhausting. First, the fish have to convert their bodies back to life in freshwater; they have to change their whole body chemistry a second time. Then they focus all their efforts and energies on swimming up the river and creek. Swimming against the current is hard when the river and creek are filled from the winter rains.

After putting so much energy into the journey and spawning, the salmon die and decompose. As they decompose, the bounty of nutrients that they got from feeding in the ocean is released into the creek bed and forest. Now, all sorts of creatures, from microscopic organisms to big black bears, can get those nutrients. Even trees take in salmon nutrients through their roots. This makes the forest habitat healthy, and a healthy forest habitat is just what little baby salmon need to begin the next generation. And so the cycle starts again.