

This Coloring Book has been adapted for the Wildlife of McGregor Park



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WILDLIFE OF PENNSYLVANIA

Written and Illustrated

by

Bob Sopchick

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The aquatic environment is important for wildlife and plants. It provides food, water, and shelter for Salmon, frogs, birds, insects, and mammals. Plants help to keep the water cool, give bugs food, and their roots help to prevent soil from eroding into the stream.





Black Bears spend time near streams and rivers trying to catch salmon and escape the summer heat. They have an excellent sense of smell which helps them find their favorite food, salmon. They take their catch into the forest where no one will bother them. The parts they leave behind, as well as their scat and urine provide nutrients that help trees grow. This is the hind foot track of a black bear. This big bear is 7 feet long and weighs 600 pounds!

Take your shoe off and place your foot on the bear track. Trace your foot with a crayon. How tall are you? How much do you weigh?



Coho are one of three species of Salmon found in Oregon. Most Coho and Chinook Salmon in Oregon are classified as threatened. During spawning, many changes occur. Coho turn a dark color on their back and stomach, with a red stripe along their sides. Males develop a hooked jaw and sharp K-9 teeth to fight off other males for a mate. After spawning, females will defend their redd until they die.



Dragonflies are an aquatic insect that live in marshes, lakes, creeks, and rivers. They are eaten by salmon, both as a nymph (a young dragonfly) living underwater and as the more familiar adult flying in the air. Salmon like to prey on young insects while they are waiting to go to the ocean. In turn insects feed on the carcasses of salmon that have spawned.



Bald Eagles, a large bird of prey, have white heads when mature. You can find their huge nest in trees and snags near water. In 1963 they were put on the Endangered Species List because human activities threatened their population. Although they were removed from the list in 2007, nationally their population remains low. Their favorite food is fish and they can often be seen flying over water in search of food.



Fishing can be a fun recreational activity and can provide food and jobs for yourself and others. Fishing regulations tell us when and how many fish we are allowed to catch and keep. Our wild salmon populations are low, so hatchery fish are often the only fish we are allowed to keep.





Herons stand up to 4 feet tall and have a 6-foot wing span. Their long, stilt-like legs allow them to wade slowly or stand still in shallow water to hunt. When a fish or frog swims by, they lunge their head into the water and stab it with their sharp beak. They nest high in trees, usually close to water, where it is safe from predators. Their blue-grey coloring helps them blend in with their surroundings. They can live up to 15 years!



In the late winter, baby salmon hatch from an egg. They are strange looking, with big eyes and a their yolk sac still attached to their belly. You can even see their hearts pumping through their transparent skin! For a few weeks they stay hidden in the gravel of their redd, getting food from the yolk attached to their bellies. As the yolk gets used up, the pouch shrinks and disappears. Now they are ready to leave the redd as fry or fingerlings and look for insects to eat.



Indicator species are species that can tell you about the health of an environment. Macro-invertebrates (bugs!) and salmon are both indicator species because they are sensitive to their environment. They need good conditions to survive, including clean, cool water and lots of dissolved oxygen. If an indicator species population is decreasing, that tells you something is wrong with the environment. If you find lots of indicator species, that means it is a healthy ecosystem!



Jack Salmon are unique because they mature more quickly than most salmon. They are daring and will attempt to come back from the ocean after only one year and spawn. If successful, they may be one of very few salmon that are able to spawn more than once in their life. However, they have to be really tough to succeed as they must fight off bigger males to find a mate.



Because of the importance of beavers to other species, they are known as a keystone species. Wetlands created by beavers falling trees are important to salmon and other wildlife. Salmon like to hide in the pools behind the logs and twigs beavers cut with their large incisor teeth! Their home (a lodge) is built in the water that forms behind their dam. Salmon are also a keystone species. Did you know over 137 species depend on pacific salmon to survive?





Salmon go through a lifecycle from an egg, inside the redd, to an alevin, where they stay hidden in the redd with their yolk sac still attached. Then they become a fry or fingerling, because they are the size of your finger! Fingerlings emerge from the redd hungry and hunt for macro-invertebrates (bugs) to eat. Then they turn into a smolt, getting ready for life in the ocean where they become adults. After one to seven years, they make their way back to the same stream to lay their eggs. After a few weeks they die, and their carcasses provides food for wildlife, insects, and can even help the trees grow. Then their eggs hatch and the cycle begins again.



Minks are in the weasel family, and although they are a land animal, they spend a lot of time near water and can dive to depths of 10 feet while hunting salmon. They are fierce predators that hunt birds, frogs, eggs, and rodents. Like a skunk, they have a stinky scent which is released when threatened.



Noxious weeds are Ob –noxious! They can spread easily, catching a ride on your shoes, tires, clothes, or pets. Most were brought over from Europe on purpose because they are pretty or good to eat, and some were brought by accident in animal food or on ships. They have lots of seeds and reproduce faster than native plants, taking over their habitat. People didn't know they could out compete the native plants. When noxious weeds take hold in a riparian zone, they can block access to water and food and this is not healthy for salmon and wildlife. A healthy riparian zone has lots of different plants, or biodiversity. Be sure to check for noxious weed seeds and remove them before hiking in other areas!



Some people call osprey the fish hawk because most of their diet consists of fish. They fly over water until they see a fish, and then dive into the water to catch it with their strong feet! They have tiny bumps on their feet and long claws called talons that help hold their live prey! They nest on snags or on the tops of telephone poles near water.



Pollution from chemicals, trash, and human activities cause our streams to be unhealthy. The removal of trees and shrubs near streams can increase pollution. Salmon, macro-invertebrates (bugs) and other aquatic and land species can not survive with polluted waters.



A healthy riparian zone means that there is good water quality. Healthy riparian zones create habitat for 80% of species at some point in their lifetime. It's important that we protect our remaining riparian areas. Only 2% of the Pacific Northwest has healthy riparian areas. A healthy riparian zone makes a high quality life for many species, and also keeps our water quality clean and healthy. Over 50% of endangered species need a healthy riparian zone to survive.

Water Quality

Just like you, salmon need fresh, clean water to stay healthy. Today we know how to improve and protect water quality. Below is a river community doing a variety of activities, some that protect their river and some that don't. Can you find all the items listed below?







The roots of trees and vegetation along the stream bank are important to the riparian zone. Roots help prevent erosion by holding back the soil and keeping it from washing in to the stream. If soil enters a stream, it can get into the gills of salmon and suffocate them. Roots can go very deep into the ground, soaking up the water. The roots also help to prevent floods or to decrease the severity of floods.





Over 137 species depend on salmon. This makes Salmon a "keystone species." Native Americans hold ceremonies to celebrate the salmon because they are so important to them. Can you think of any other species that aren't in this picture that might depend on salmon? Why would a tree need a salmon? How could salmon help a shark? Do we depend on salmon, too? How?



Salmon are very sensitive to the temperature of the water. Their eggs can not survive in water above 55°, and if the water is above 75°, the adult salmon will die within 12 hours. Imagine trying to live in 150° weather! That's what warm water feels like to salmon! Salmon depend on a healthy riparian zone with lots of trees and vegetation to provide shade and keep the river nice and cool during the hot months.



The upland zone is the area just beyond the riparian zone. The riparian zone acts as a buffer between the upland zone and the aquatic zone. For forests in the upland zone, salmon are very important to help fertilize and add nutrients to the soil. Bears, eagles, and other wildlife carry salmon carcasses to the upland zone to eat and leave behind parts that help the soil. Other times, the scat from predators of salmon can provide the nutrients for the forest to keep it a healthy habitat.



Vegetation is a key element to a healthy riparian zone. Native vegetation provides shade to keep the river cool, food for wildlife and insects (which in turn the salmon eat!), roots to hold back soil from entering the stream, flood control, and filtration to keep toxins out of the water. Without vegetation along the riparian zone, the salmon would be in big trouble! And without the nutrients from the salmon carcasses to help the trees grow, the forest wouldn't be as healthy.



Willows are important to riparian zones because they provide root systems to hold soil back and keep the bank in place. Willows are also nitrogen fixers, which means they add nutrients to the soil. Willows are one of the most common trees planted for restoration of riparian areas because they take root and grow quickly in moist soils. Native Americans also use willow for basketry and headaches. Did you know aspirin comes from willow bark?



Riparian zones act as a safe place to travel, much like a school crossing zone. This is also called a wildlife corridor. Animals can find shade, food, water, and shelter during their migration. If you've ever looked at a river from high above, the vegetation surrounding the river almost looks like a trail. Animals can safely cross landscapes in the riparian zone.



Yarrow is a common native plant found in Oregon and the riparian zone. Yarrow has soft leaves with a calming scent and white flowers. It is used as a medicine to help prevent and treat colds. Its leaves can also be applied to wounds to help stop bleeding because it is a coagulant, or a blood thickener. This enables the body to create a scab more quickly. Some people call yarrow "nature's Band-aid". Native American's often use yarrow inside salmon cavities for drying and preserving their catch.



Healthy watersheds have different zones to describe the habitat. The aquatic zone is where a body of water is found. The riparian zone surrounds a body of water and provides shade, flood and erosion control, a wildlife corridor, and essential habitat for over 80% of wildlife. The riparian zone acts as the buffer between the aquatic zone and the upland zone. The upland zone is never under water. It could be left in its natural setting such as a forest, or it could be where we build our homes and other developments.