# A Guide to Nearby Nature's Stencil Mural

Welcome to Nearby Nature's Frohnmayer Footbridge Mural! In the summer of 2018, Nearby Nature TAG Team volunteers and staff spent 200+ hours prepping the bridge and painting this stenciled mural. Their hard work and creativity are reflected in the diversity of styles you can see in the painted stencils. The diversity of our community parallels the importance of diversity in our ecosystem. Without a diverse community, the life of our forests and rivers, the life of this mural, would not be possible.

Land and water interact beautifully in this mural to create a lovely picture of our fascinating home. The artwork mimics the flow of environments found in the upper Willamette Valley – from river to riparian habitat to forest to oak savannah, and then back through the sequence again. All of the 17 plants and animals featured in the mural can be found in or near Alton Baker Park's Whilamut Natural Area, and are described in detail below.

### River

Beaver - North America's largest rodents alive today, beavers can hold their breath for 15 minutes! They can also chew underwater, thanks to watertight closures behind their incisors and at the base of their tongues. Mostly nocturnal, they eat aquatic plants, leaves, twigs, stems, bark, and roots, and are famous for "engineering" their environments. By creating ponds and other wetlands, their home- and dam-building projects also create habitat for other species. In the Canoe Canal and other local waterways, the water is deep enough and climate temperate enough that dams are unnecessary, so beavers make dens in the banks of waterways rather than building dams. Keep an eye out for trails up from the water and gnawed cottonwoods and other trees for signs of their activity

Mallard Ducks – Mallards, called puddle ducks or dabbling ducks, feed on the surface or tip tail-up to reach submerged vegetation, seeds, and invertebrates. With their beaks, these birds extract oil from a gland at the base of their tails and use it to waterproof their feathers. The male mallard's bright colors are used to attract a mate and the female's brown camouflage lets her safely incubate her 6-15 eggs in the reeds and grasses. Ducklings are "precocious" and take to the water right away, following their mother for up to two months.

Great Blue Heron – These large, blue-gray birds are perfectly adapted to their aquatic environment, with long legs for wading and an agile neck and dagger-like bill for grabbing prey. Great blue herons feed mainly on fish but also eat amphibians, insects, and even small birds and mammals. The birds in our area remain here year-round, traveling as far as eight miles to find food. Great blue herons usually nest in rookeries high up in trees in large, flat nests of interwoven sticks lined with twigs and leaves. Herons form long-term pair bonds but are solitary when not nesting.

Osprey – A spring and summer resident of our area, the osprey is also called the "fish hawk" since 90% of its diet consists of live fish. Often seen or heard overhead, ospreys dive into water feet-first from as much as 100 feet in the air to grab their prey. A unique, reversible outer toe and spiky scales on their feet help them grip slippery fish. Unmated males perform a "sky dance," climbing and diving, often while carrying a fish, to attract females. Although they spend winters apart, osprey pairs probably mate for life. In the spring they meet back at the nest site, typically located at the very top of a tree or pole, such as the ones visible near Autzen Stadium.

Chinook Salmon – When rivers are free-flowing, salmon travel out to sea and spend years feeding and growing before they swim back again to their birthplaces to spawn. Dams and other human impacts on rivers can interrupt the natural seasonal flow of water in a river. Salmon need safe places to lay their eggs and free passage to the ocean to successfully complete their life cycles.

Western Pond Turtle – Western pond turtles live in streams, marshes, ponds, lakes, and canals with muddy bottoms. A normal turtle day includes sleeping, basking in the sun, and foraging for food – insects, crayfish, frogs, frog eggs, worms, fish, or vegetation. Turtles also eat decaying or dead plants and animals. Dwindling turtle populations are attributed to loss of habitat, fire suppression, changes in vegetation, non-native species, and perhaps even diseases introduced by domestic turtles released into the wild. These turtles do not currently live in Alton Baker Park.

## Riparian Zone

Black Cottonwood – The sweet smell of cottonwood trees typically begins to waft along park trails in late winter. This scent comes from a sticky substance on the buds that deters chewing insects. Wind-borne male pollen fertilizes female catkins. By summer, fluffy seeds drift down on park visitors and are spread by wind and water. Wind dissemination is an effective strategy for riparian plants, as seeds can travel along windy river corridors or float downstream. A water-loving species, you can see and hear the cottonwood's heart-shaped leaves flickering in the breeze, dark on top and light on bottom.

**Dragonfly** – Dragonflies start their lives underwater as "nymphs" that prey on other small invertebrates. Dragonfly nymphs may live in the water for up to three years, shedding their skins (exoskeletons) several times before they turn into winged adults. As adult dragonflies, they have large eyes to see prey, strong wings to hover and swoop, and legs which form a basket for scooping insects out of the air.





Pacific Treefrog – The Pacific treefrog is the most widespread frog in Oregon. These amphibians live in shallow seasonal ponds (called "vernal pools") as tadpoles, then in trees and shrubs, on the ground, and in water as adult frogs. They can live in woodlands, meadows, pastures, and even the suburbs, using their sticky tongues to feed on mosquitoes, ants, spiders, and the like. In turn, these frogs are food for snakes, invasive bullfrogs, and herons. Amphibians, including frogs, are considered "indicator species" that hint at the overall health of an ecosystem.

## **Forest**

**Bigleaf Maple** – Helicopter seeds, or samaras, and large palm-shaped leaves characterize this species. The Willamette Valley is the most hospitable area in the world for bigleaf maples, which grow just one terrace up from riparian areas along our rivers. Moss and licorice fern often give their strong branches a furry look. Maples, along with ash trees, exhibit opposite leaves and branches. Native people used the inner bark of the maple to make baskets and the leaves to line berry baskets and baking pits. The strong wood was used for making useful implements as well as decorative objects.

Sword Fern – Some of the oldest species on earth (evolutionarily speaking), ferns are much more primitive than flowering plants. Rather than developing flowers, they reproduce through millions of spores that yearly either pop into the air or are carried by water for dispersal. Mosses, lichens, and liverworts are spore-bearers as well. Native sword ferns have slender fronds that resemble swords. They are long lived and may be older than the forest trees that tower above them.

**Deer Mouse** – Deer mice are the most widespread and numerous mammals on the North American continent. They are omnivores that feast on insect larvae in the spring and berries or seeds in the fall. Deer mice make their nests in protected areas, such as holes in trees

or the walls of houses. Nests are made of whatever materials are handy, including lichen, moss, and insulation.

edges for silent flight. Many owls have dish-shaped faces that funnel sound and light to their ears and eyes. One ear is usually larger and higher on the head than the other to aid in more accurately locating sounds. In order to have a wider field of vision, they have flexible necks and can turn their heads 270 degrees in either direction. Great horned owls hunt a variety of prey including rabbits, rodents, and birds.

Snail – Known for their spiral-shaped shells, snails are one of many invertebrates (meaning "without a backbone") found in our forests and gardens. Snails are mollusks, animals with soft bodies that live in damp environments. While often considered garden pests, when in the forest and meadows, snails help with decomposition and are themselves a food source for raccoons, herons, garter snakes, and other animals. Related to land

snails, water snails live in our rivers, where they eat algae and plant materials.

#### Oak Savannah

Bat – Bats are the only mammals that can fly. Most bats are nocturnal and (though they have good eyesight) use high frequency squeaks, or echolocation, to find and catch insects in their mouths, tail membranes, or wings as they fly. Some consume as many as 600 mosquitoes in an hour! Seven species of bats have been found in Alton Baker Park, with the big brown and little brown bat being most common.

Camas – Related to lilies, camas has long been important to the area's first residents, the Kalapuya, and to other groups historically as a source of food. The bulbs were cooked in pits in layers of hot ash and reportedly taste like sweet potatoes. Fire was used to keep camas meadows thriving. Native people were skilled at distinguishing the bulbs of edible camas from those of their toxic cousin, the death camas.

**Oregon White Oak** – Oaks may produce thousands of acorns, but in our area, they do this only every two or three years. This uneven production from year to year is called masting. It prevents acorn eaters,

like squirrels and jays, from having population levels rise to completely consume annual acorn production. White oaks display a characteristic goblet shape, leathery round-lobed leaves, and thick bark. Oaks are visited the most often of all trees by lightning, and host the greatest variety of galls made by harmless wasps (round homes for wasp larva that resemble fruit). In general, oaks prefer dry soils and access to full sun.