

Ecology notes: Cut and paste the following five pages to the back of the appropriate 'Mystery Animal' cards to provide additional information for use during the 'Mystery Animal Walk'.

Animal Ecology: American Crow

Observations: American crows are common throughout the Seattle area. They are usually seen in family groups of 2-6 while feeding. They are also easily heard as they communicate with each other and chase away predators such as hawks and cats. Their most well known sound is, "Caw, caw, caw".

Fun Facts: Crows sometimes mimic other animals, making the sounds of other animals from cats to humans, and may even say words you can recognize such as, "Hello". Crows often 'mob' hawks and other predators by chasing them noisily from tree to tree; so if you notice this behavior, look closely and you may find a hawk or cat nearby.

Food: Crows eat a wide variety of foods, including insects, small mammals, dead animals, fruit and grains. They especially love children's school lunches. They will eject pellets, similar to owls, when eating small mammals.

Shelter: Crows make large nests of branches and twigs in tall trees. They line their nests with shredded cedar bark, feathers, grass, moss, hair or leaves. Other unusual found objects such as string, clothing or shiny objects may be found in nests as well.

Water needs: They have no special water needs.

Who it hides from: The young are vulnerable to hawks and cats, otherwise they seldom need to hide.

Other information: Crows and ravens were important characters in native legends and are considered one of the most intelligent birds. In winter they form huge flocks, and will travel as far as 30 miles to locate food sources.

Animal Ecology: Deer Mouse

Observations: Deer mice are not often seen since they are nocturnal. They live in trees, under logs, in piles of brush and sometimes sheds or outbuildings.

Fun Facts: Generally 6 - 8 inches long, half of which is its tail. These mice are mainly active at night; this is why they are not often seen. They have 4 toes on their front paws and 5 toes on their back. The deer mouse is also a good climber.

Food: Likes to eat berries, seeds, nuts, cones, and plant shoots. Mushrooms too! Deer mice hide their food in log piles or knotholes and under rocks.

Shelter: They make nests from shredded grass, moss, and leaves, and can be found in cavities under rocks or logs, in burrows, holes in trees or old bird nests. The deer mouse even builds a roof on top of its nest!

Water needs: They have no special water needs.

Who it hides from: Snakes, birds of prey, larger mammals.

Other information: Deer mice burrow in the tunnels of other critters instead of making their own. Deer mice are known to carry a dangerous virus so people should be cautious about breathing in dust from a deer mouse nest.



Animal Ecology: Douglas Squirrel

Observations: Douglas squirrels are not common in Seattle urban areas, though they were common in the past. Non-native Eastern grey squirrels have forced them out of their habitat. Recently, Douglas squirrels have been seen, and heard, in a few remote Seattle parks so perhaps they are making a return. Douglas squirrels like to eat the seeds out of Douglas fir cone and will leave the rest of the cone pieces in a pile underneath trees (as do Eastern grey squirrels). They also like to eat maple seeds, and cones from spruce and firs, and you often you can find the remains of these at base of trees. You can also listen for their call, which sometimes sounds like a squeaky toy, or a repeated loud alarm; “pee oh, pee oh”.

Fun Facts: Douglas squirrels have orange front teeth, which constantly grow and are worn down by chewing. They are very active, mostly during the day. Also, they have good eyesight and hearing. Additionally, they are very territorial and vocal. Douglas squirrels do not drink much because most of their water comes from the food they eat.

Food: They like to eat seeds of conifers, beaked hazelnut, and maples. Mushrooms too (which they stick in cracks of a tree to dry first)! They are also known to cache (hide) cones for the winter.

Shelter: They find homes in the holes of trees or make nests out of twigs, needles, and bark which they put in the upper part of a conifer tree. They do not hibernate.

Water needs: Rainfall, dew, pools of water and moist food provide needed water.

Who it hides from: Birds of prey and larger predatory mammals such as cats.

Other information: A Douglas squirrel is a very territorial critter. If it spies an intruder, it will sound an alarm which sounds like, “Pee-oh! Pee-oh!”

Animal Ecology: Little Brown Bat

Observations: The little brown bat is nocturnal, so it is best seen during the summer at dusk or dawn, or near lights at night, feeding on insects when insects are most plentiful. During winter, little brown bats like to find warm places to hibernate (go into a deep sleep). There are other species of bats that live in the Pacific Northwest.

Fun Facts: These guys are little, only 3 ½ inches long, a wingspan of 10 inches and weighing about ¼ of an ounce. Baby bats grow fast and can fly 3 weeks after birth. They like hot temperatures and colonies have been found in temperatures as high as 131 degrees Fahrenheit. Bats eat close to their own body weight in insects (including mosquitoes) each day and are vital in controlling insect populations.

Food: The little brown bat flutters out to catch insects as soon as the sun sets. It is strictly an insectivore (only eats insects), so there is no need to fear this mammal, unless you are an insect. It likes to eat beetles, flies, wasps, moths and lots of mosquitoes. A bat can eat 600 or more mosquitoes in an hour.

Shelter: In summer, bats like to find protected and warm places to roost such as cracks and folds of tree bark, hollows in snags, attics, behind shutters, under awnings or even bat boxes (similar to bird houses, but designed for bats to roost). In winter, little brown bats go into caves, old mines or hollow trees snags to hibernate. The decaying process in a tree snag can heat the inside to 80 degrees in winter.

Water needs: Colonies are usually close to open bodies of water because of the types of insects available there. Bats need room over water to swoop in order to feed.

Who it hides from: Mink, weasels, raccoons, snakes, owls, hawks, cats, bad storms and especially people.

Other information: How can a bat navigate at night? It sends out high squeaks that bounce back to it from things that are in its path. This is called echo-location. Bats do *not* get tangled in people's hair. Bats are *not* bad. Bats are *not* blind. Bats are *not* dirty. However, a tiny percentage of bats can carry rabies so people should be cautious if they encounter a wild bat.

Animal Ecology: Northern Flying Squirrel

Observations: Northern flying squirrels are nocturnal. They sleep in tree cavities during the day and become active at night. That is why most people do not get to see them. One of their favorite foods is fungus (i.e., mushrooms and their relatives), which they find on dead trees (snags) and fallen trees (nurse logs) in the forest. They are still living Seattle urban forests. A good place to see flying squirrels is at Camp Long in West Seattle.

Fun Facts: Northern flying squirrels do not fly like birds and bats. They can glide using skin folds that stretch from their front to their hind legs. They are amazing creatures that can glide up to 100 feet at a time while moving from tree to tree. They are also good at stopping, using their tail to steer and brake.

Food: They like fungus, lichens, nuts, acorns, fruits, and seeds.

Shelter: Northern flying squirrels almost always live in trees. They make winter dens in tree holes and build summer nests high up in conifer trees from twigs and bark, softened with feathers, fur, leaves, and conifer needles. In some areas they make their homes in attics. These squirrels do not hibernate.

Water needs: They have no special water needs, rainfall, dew, pools of water and moist food provide enough water.

Who it hides from: Birds of prey, especially owls, and larger predatory mammals such as cats.

Other information: They are strictly nocturnal and rarely seen. Also, they prefer conifer forests but can be found in mixed forests (coniferous and deciduous) too.

Animal Ecology: Northwestern Garter Snake

Observations: Northwestern garter snakes might be found sunning themselves on the edges of the forest, or curled up on a sword fern leaf. You can look for them on warm days near rocks, logs, walkways and other heat collecting areas.

Fun facts: The garter snake defends itself from predators by emitting a foul scent when disturbed. Another interesting fact is that female garter snakes do not lay eggs instead they give live birth. The easiest way to identify this snake is to look at its head. It has a smaller head than other species of garter snakes.

Food: They eat slugs, earthworms, frogs, and sometimes salamanders.

Shelter: This snake can be found in grassy areas, open woodlands, and moist meadows. They hibernate in winter in mole tunnels, rock piles and other protected places.

Water needs: They live near the water because most of their prey is found there.

Who it hides from: Birds of prey, and possibly herons, opossums and children who like to capture them.

Other information: Their colors can vary greatly. They may be striped with red, yellow, orange, blue, white, or may have no stripes at all. They are most active on sunny days (diurnal). Garter snakes are important controls for slugs and can eat several in minutes.

Animal Ecology: Pacific Chorus Frog
(Also called Pacific Tree Frog)

Observations: Chorus frogs live in forests and wetlands. In spring you can hear the male Pacific chorus frog making its call, a two-syllable *krek-ek* during breeding season in spring and a one-syllable *c-r-r-ick* heard the rest of the year until fall. In places where non-native bullfrogs have invaded the chorus frog may not be present since bullfrogs feed on them. Bullfrogs sound like a cow or bull call.

Fun facts: The color of skin, which varies from bronze brown to light green, can lighten or darken in just a few minutes. Males can be identified by their darker throat, which is a result of the skin stretching during croaking. This call has been recorded and used in many movies as a sound of the nighttime. Frogs drink water and get extra oxygen through their skin; this is why they need to stay moist. Unlike some types of frogs, tree frogs have no webbing on their toes but have sticky toe pads instead which helps them to climb trees.

Food: Adult frogs eat insects and spiders. They can eat creatures as long as they are! Tree frog tadpoles eat algae and other pond plants.

Shelter: They use many different places, sometimes far from water including woodlands, meadows, pastures, and urban areas. They shelter in mole tunnels and other cavities. They need a pool of water or pond, with certain plants on which to lay their eggs in spring.

Water needs: They need water for breeding and egg-laying; ranging from shallow wet meadows and swamps to deeper cattail marshes. They can also use ephemeral (seasonal) ponds in which to lay their eggs. They use these ponds because many of their predators such as fish and bullfrogs are only found in permanent ponds.

Who it hides from: Owls, snakes, bullfrogs, raccoons, children who capture them.

Other information: Often heard calling after rain. The eggs become tadpoles, which develop in the pond and then go on to live in the forest as adults.

Animal Ecology: Raccoon

Observations: If you were to visit a habitat area at night you would probably see raccoons because they are most active at night (nocturnal). They have adapted well to urban areas and are often seen in backyards. As evidence of their presence you might find footprints in muddy areas, or along shorelines. A raccoon track has 5 toes on the front paw and 5 toes on the back paw, and they sometimes look like a hand. They are creatures of habit and often repeat their nightly rounds at the same time every night.

Fun Facts: Raccoons use their dexterous hands just like humans, holding and manipulating their food. They are not strictly nocturnal; females carrying young may venture out during the day for food. Wintertime is very dangerous for these animals because food is difficult to find. Raccoons are fast runners and can run up to 15 miles per hour. They are also good swimmers.

Food: Raccoons are omnivorous, eating both animal and plant foods.

Shelter: Raccoons use trees for resting and often creates dens in rotting logs or crevices under rocks.

Water needs: They often find their food in water, which created the myth that raccoons wash their food before eating.

Who it hides from: Humans, dogs, coyote, fox. In rural areas it is a favorite food of cougar and sometimes coyote. Young ones hide from owls.

Other information: Some people think that raccoons make good pets because they are cute, furry, and smart. They don't. They are wild animals and can be aggressive.

Animal Ecology: Sharp-shinned hawk

Observations: Forests and forest edges are favorite hunting grounds for sharp shinned hawks. Flocks of crows will loudly follow (called ‘mobbing’) a sharp shinned, or other hawk, so look closely when crows appear to ‘mobbing’ something. Sharp-shinned hawks require coniferous trees for nesting.

Fun facts: This hawk can grow to full size within one month after hatching. Unlike most animal species, the females are usually larger; they can weigh up to twice as much as the males. This hawk’s small size makes it ideal for swooping through dense forests as it searches for food.

Food: Eats mostly small birds but occasionally woodpeckers, insects and small mammals, usually mice. They may also be found hunting around home bird feeders.

Shelter: In the Pacific Northwest, it nests and roosts in coniferous forests.

Water needs: When breeding, these birds are often found near forest openings or edges located near streams, lakes, or some other kind of water body.

Who it hides from: Larger raptors (hawks, falcons, or vultures) and noisy crows.

Other information: Its rounded wings and long narrow tail are built for quick flight and sharp turns, allowing it to chase birds through the woods while swerving to avoid branches. However, sometimes sharp-shinned hawks travel at such a speed that they crash into tree trunks, branches or even windows. Their nickname is “sharpie”. A similar hawk is called a ‘Cooper’s hawk’ and is most easily distinguished by the shape of its tail (Sharp-shinned has a square ended tail, while Cooper’s is rounded).

Animal Ecology: Western Tiger Swallowtail Butterfly

Observations: Swallowtail butterflies are one of the most common butterflies in the northwest, emerging in spring after over-wintering as a chrysalis (the butterfly equivalent of a cocoon). They feed on the nectar of many different flowers in forests, meadows and wetlands.

Fun facts: This is one of the largest butterflies in the state. The trailing ends of the wing look like a swallow’s tail, hence its name. The caterpillar (larva of the butterfly) hatches from a round green egg and then begins to eat as much as it can. As the caterpillar grows it sheds its skin. This is called molting. After molting, the caterpillar eats the highly nutritious skin! After five molts, the caterpillar develops into a chrysalis (moths generally spin a cocoon but butterflies form a chrysalis). In the summer, the chrysalis hatches into an adult butterfly in just 10 to 15 days.

Food: Caterpillars eat alders, willows, poplars, aspens, wild cherry, maple, and serviceberry leaves. Adult butterflies feed on the nectar of many flowering plants including salmonberry, blackberry, thimbleberry, thistle, mock orange, Oregon grape and serviceberry.

Shelter: The chrysalis over-winters hanging from a twig or tree trunk.

Water needs: The adult butterfly stays near moisture in order to “puddle” (collect mineral salts along muddy banks of streams and ponds).

Who it hides from: Many birds and small mammals eat the caterpillars and adults.

Other information: Western Tiger Swallowtails begin flying in May in Washington.