

# Take a walk through wildlife habitat at the Ivy Creek Natural Area

## Introduction to a Wildlife Habitat Walk

The environment in which an animal lives is called its HABITAT. To survive, wildlife must have access to four basic habitat elements-- food, shelter, water, and space, and they must be in an arrangement suited to their range. Each species of wildlife has its own set of specific requirements that may vary by season.

*Start your walk at the Education Building, walking along the paved trail toward the field.*

## Grasslands

A native grassland such as this one provides a habitat rich in food and shelter. Insects are vital to the grassland ecosystem. Watch for flies, bees, and butterflies feeding on the wildflowers, facilitating pollination. The ubiquitous grasshopper will eat the developing shoots of grasses and they in turn are prey for many other animals including mantids, spiders, birds, reptiles and mammals. The deer mouse and meadow vole also feed on roots, green shoots, seeds and some insects. They would do a tremendous amount of damage if not for the predators who visit the field for a rodent meal. Predators such as red fox and coyote are invaluable to field health as they prey on rabbits, rodents and insects which dine on the grasses.

Reptiles, such as the black rat snake and black racer, are another important predator of rodents in a field. The snakes, in turn, are food for the Red-tailed Hawk and Great Horned Owl, top predators on the food chain and frequent visitors to fields.

## Edge Habitat

Along the western edge of the field, note how thorny, tangled shrubs and small trees make up this valuable ecotone, known as "edge" habitat. Enhanced by forest and field habitats on either side, the edge habitat provides prolific fruit production and protective cover. This habitat offers a safe place for sleeping, feeding and traveling and a quick get-away for prey species such as birds and small mammals fleeing from the predators that come to the field to hunt. Dense branches make excellent nesting sites for many birds, including cardinals and mockingbirds. Edge habitat is truly a haven of biodiversity.

*From the paved trail, turn right onto the Red Trail. Follow Red to the bridge and on to the marsh.*

## Riparian Habitat

Riparian areas are the narrow margins along streams, rivers and lakes, where vegetation is strongly influenced by the presence of water. They are among the most productive of natural systems and therefore play a key ecological role in the health of the entire ecosystem. Preserving vegetation along riparian zones is critical to the health of the watershed. An intact riparian zone acts as a filter between streams and the adjacent environment, reducing erosion and sedimentation in stream beds, and preventing the release of excess nutrients and pollutants into the aquatic environment, thus protecting aquatic life.

Riparian areas are particularly vital to wildlife, as they provide water, shelter, and food necessary for survival. They serve as important corridors, facilitating dispersal and migration of wildlife. Many birds also depend on this habitat for food and nesting opportunities. Heron, ducks, and other aquatic birds must live around water for the fish and amphibians that live there. Migratory songbirds often use the riparian corridors for migration and some, like the Louisiana Waterthrush, for nest sites.

Wildlife that depend on clean water include many macroinvertebrates that make up the larval community of aquatic insects, including dragonflies, caddisflies, mayflies and stoneflies. Frogs, toads and salamanders need the riparian environment for their reproductive activities. Many of our common reptiles spend most of their time in the water, including the painted turtle, snapping turtle, and northern water snake. Beaver, muskrat, and otter all need an aquatic habitat to survive. Mink and raccoon will be frequent visitors to the streamside for a drink and their next meal.

*Follow the Red Trail along the shoreline, left into the woods and left on to the Brown Trail.*

### **Old Field Habitat**

The rich diversity of flowers, seeds and insects found in this grassy habitat attracts a variety of birds, reptiles, and small mammals. The nectar of wildflowers is an important food source for honeybees, butterflies and hummingbirds that rapidly burn carbohydrates during flight. These nectar feeders, in turn, ensure plant reproduction through the transfer of pollen.

Wildlife abounds in an old field in a classic food chain. Open sun fuels the growth of the producers, plants that use the energy of the sun to generate sugars and release oxygen. Consumers, such as insects, will eat the producers and become food themselves for many other animals, like sparrows, birds that feed and nest in the field. Small herbivorous mammals such as rabbits, voles, and field mice will share the grasses and herbaceous plants with insects and become prey to carnivorous mammals and birds. These in turn attract primary and secondary predators such as the black rat snake or the hognose snake. Top carnivores, like the owls and hawks as well as fox and coyote will lay in wait for the snakes, rabbits, and rodents -- animals lower on the food chain.

*From the field on the Brown Trail turn left into the woods.*

### **Pine Forests**

In the Virginia forest, trees are classified as either evergreen when they retain their leaves (usually needles) year-round or deciduous when they shed their leaves in the fall. Because they retain their leaves year-round, evergreens, including pines, junipers, hemlocks and hollies provide excellent winter food and cover.

Evergreens that bear cones are called conifers. Their tiny seeds and needles are favored by titmice, chickadees and some finches. Pines provide favorite nesting sites for Mourning Doves, Sparrows, and of course, the Pine Warbler. The eastern redcedar, the most widely distributed of the northeast conifers, produces nutritious berries that are consumed by many kinds of wildlife, including the Cedar Waxwing, named for this tree. The redcedar's dense branching provides valuable cover in winter and in severe weather. For its many important wildlife habitat qualities, redcedar was named among the top ten native plants by the National Wildlife Federation.

*At the T-intersection, turn left to return to the bridge on the Red Trail.*

### **Forest Habitat**

Mammals, birds, reptiles, amphibians and insects nest and hibernate in cavities of large trees. Even young trees offer much needed resting spots for migrating birds. Living, hollow trees provide den sites for many animals, including black bear. Blackgum is particularly important for this species.

In addition to shelter, trees provide an important food source for many animals. Spring flowering trees, such as the tulip poplar, provide nectar and pollen for insects and some birds as well. The leaves of our native forest trees nurture the caterpillars of some of our most beautiful butterflies, including the eastern tiger swallowtail, Virginia's state insect. Likewise, an array of birds feed on these caterpillars and other invertebrates hatching in the treetops each spring as the leaves emerge.

Fruit production becomes a critical food source as the season progresses. Red maple comes early, with black cherry and the wild grapes maturing as summer ends and dogwoods providing an important food source as migration begins. "Mast," most notably acorns produced by oaks, provide a reliable and abundant food source for squirrels, chipmunks, raccoons, foxes, wood ducks, mallards, blue jays, and turkey. Even woodpeckers enjoy acorns during fall and winter when other food is scarce. Other varieties of nut-producing trees important to wildlife include hickories, walnuts, hazelnuts and beeches.

**Habitat loss is the No. 1 threat to wildlife today. As our population grows, natural habitat is disappearing. If we hope to preserve our native wildlife, we must work to preserve their habitat.**