

Eastern Hemlock

Tsuga canadensis

Identification:

- Eastern hemlock is a graceful native evergreen tree.
- This conifer is unusual in that the terminal leader often droops instead of giving the tree a typical pointed top like that of most trees in the pine family.
- 5/16 to 9/16 inch needles are flat and green above with white, shallow, bands on the underside. They are attached with slender stalks and have a flattened, rather than spiral, appearance on the branch.

The Eastern hemlock occurs only where there is drainage of cool, moist air. In the northern hardwood forest, it is found on a variety of sites, including low rolling hills and glacial ridges. Eastern hemlock most commonly grows in mixed stands with species such as white pine, northern red oak, sugar maple, American beech, yellow birch, and white ash.

Eastern hemlock is the most shade tolerant of all tree species and individuals may remain in the understory in natural stands for 25-400 years.

Hemlock Woolly Adelgid

Adelges tsugae

Identification:

- Small, soft-bodied insects that are closely related to aphids.
- The females are oval, blackish-gray, and about 1 mm in length.
- Newly hatched nymphs called "crawlers" are approximately the same size, reddish-brown, and produce white, waxy, cottony or wool-like tufts that cover their bodies throughout their life.
- The white-woolly masses are 3 mm or more in diameter.

The presence of these woolly flecks on twigs and at the base of the hemlock needles is the most obvious indicator of an infestation.

Threat: HWA is native to Asia, where it is a harmless inhabitant of several hemlock species. In the Eastern United States the Hemlock Woolly Adelgid is a threat to forest ecology. The nymphs suck sap from the young branches which results in premature needle drop and branch dieback.

Treatment: Biological control, chemical treatment, education and monitoring.

White-footed Mouse
Peromyscus leucopus

Identification:

- A medium - sized mouse, from 15 - 20 cm (5.9 - 7.9 in) in total length.
- Pale to rich reddish brown fur on the back and sides.
- Creamy white to grayish white on the belly, which is distinctly marked off from the upper parts.
- A darkish brown stripe occurs along the middle of the back from the head to tail.
- The tail is fur-covered, and usually shorter than the combined length of the head and body.

Food: Seeds, nuts, grasses, fruits, and some insects.

Habitat: The White-footed Mouse is common in upland mature forests with fallen logs and snags, rocks, ledges, and brush piles. This species will commonly cache seeds and nuts in burrows and near nests.

Cool Facts: White-footed Mice communicate with each other by foot-stamping, vocal squeaks, and scent.

White-footed mice have keen homing instincts. In experiments in which they were captured and let go 2 miles away, they found their way back to where they were captured.

Green Lacewing
Chrysoperla rufilabris

Identification:

- Grow to about 1/2 - 3/4 inches long.
- Pale green or pale yellow body with copper colored eyes and long, thread-like antennae.
- Have long, clear wings with green veins.

Food: Larvae (commonly known as "aphid lions") have sickle-shaped jaws (mandibles) with which they pierce prey and suck out body juices from soft bodied insects such as aphids. Adults have chewing mouthparts. Adults are poor fliers, active at night and feed on pollen, nectar and honeydew.

Habitat: Live in fields, gardens and forest edges where they can camouflage on the green leaves. Over-winters as a last stage (instar) larva in a silken cocoon in the soil.

Lay eggs on white stalks hanging from the bottom of leaves, the long stalks keep the larvae from consuming each other when they hatch.

Cool Fact:

The Green Lacewing is considered a beneficial insect; they can consume over 200 aphids or other prey per week.

Barred Owl
Strix varia

Identification:

- “Who cooks for you? Who cooks for you-all?”
- Large, stocky owls with rounded heads, no ear tufts, and medium length, rounded tails.
- Barred Owls are mottled brown and white overall, with dark brown, almost black, eyes.
- The under-parts are mostly marked with vertical brown bars on a white background, while the upper breast is crossed with horizontal brown bars.

Food: Nocturnal hunters feeding on small animals, especially rodents.

Habitat: large, mature forests made up of both deciduous trees and evergreens, often near water. They nest in tree cavities. They tend to occur in large, un-fragmented blocks of mature forest, possibly because old woodlands support a higher diversity of prey and are more likely to have large cavities suitable for nesting.

Cool Fact: Barred Owls don't migrate, and they don't even move around very much. Of 158 birds that were banded and then found later, none had moved farther than 6 miles away.

Red Eft/Red Spotted Newt
Notophthalmus viridescens

Identification:

- Adults are aquatic and have an olive-green back with scattered red spots and a yellow belly with small black dots.
- The juvenile terrestrial stage, the Red Eft, is red with black-bordered red spots along each side.
- Adults are about 4 inches long.

Food: Invertebrates and small wetland animals, like snails and minnows.

Habitat: Adults are usually found in permanent pools of water and efTs occur in forest habitats. Eggs are attached singly to submerged vegetation in the spring.

Cool Fact: A newt can avoid predators by secreting toxic substances through its skin.

Southern Flying Squirrel

Glaucomys volans

Identification:

- The fine, silky fur is gray in color on the back and white on the belly.
- The tail is gray above and pinkish cinnamon below.
- Adults range in size from 21 - 25 cm (8.3 - 9.8 in) in total length.
- It has a loose fold of skin that connects the forelimbs to the hind-limbs from wrist to ankle. This fold of skin, called a "patagium," serves as the gliding membrane when the limbs are fully extended.

Food: The Southern Flying Squirrel is the only carnivorous member of the squirrel family. Its omnivorous diet includes acorns, nuts, berries, fruits, seeds, buds, blossoms, insects, birds, nestlings, eggs and, occasionally, carrion.

Habitat: Hardwood and mixed hardwood - pine forests where there are many old trees with natural cavities or woodpecker holes. Nests are usually placed in an abandoned woodpecker cavity or other tree hole, and may be as high as 12.2 m (40 ft) from the ground.

Cool Fact: The Southern Flying Squirrel is also almost completely arboreal and can soar an average of 20 - 30 ft. Records of glides up to 100 ft long have been recorded. By movements of the *patagium* and tail, it can control the direction of its flight and can make turns of 90 to 180 degrees.

White-tailed Deer

Odocoileus virginianus

Identification:

- White on its throat, around its eyes and nose, on its stomach and on the underside of its tail.
- Adult white-tails have reddish-brown coats in summer which fade to a duller grayish-brown in winter.
- Male deer, called bucks, are easily recognizable in the summer and fall by their prominent set of antlers, which are grown annually and fall off in the winter.
- Young deer, called fawns, wear a reddish-brown coat with white spots that helps them blend in with the forest.

Food: White-tailed deer are *herbivores*, leisurely grazing on most available plant foods. Their stomachs allow them to digest a varied diet, including leaves, twigs, fruits and nuts, grass, corn, alfalfa, and even lichens and other fungi. Primarily nocturnal or crepuscular, browsing mainly at dawn and dusk.

Habitat: In the heat of summer they typically inhabit fields and meadows using clumps of broad-leaved and coniferous forests for shade. During the winter they generally keep to forests, preferring coniferous stands that provide shelter from the harsh elements.

Cool Fact:

White-tailed deer are very good runners. They can run at speeds of up to 30 mile an hour. They are also good leapers and swimmers.

Black-throated Green Warbler
Setophaga virens

Identification:

- Small songbird "zoo-zee, zoo-zoo-zee"
- Black in throat, extending as stripes down sides of chest.
- Yellow face.
- Crown and back olive green.
- Two white wing-bars.
- Belly white.

Food: Insects and larvae

Behavior: Gleans from small branches; sometimes hovers and picks prey from leaves and branches.

Habitat: Breeds in Boreal Coniferous forests. Typically uses SE Ohio as a migration route but will breed in the cool Hemlock forests of the Hocking Hills.

Cool Fact: The male Black-throated Green Warbler sings persistently during the breeding season. One individual was observed singing 466 songs in one hour.

Least Brook Lamprey
Lampetra aepyptera

Identification:

- The least brook lamprey is the smallest of the seven lamprey species found in Ohio.
- Long eel-like body and no scales
- Have segments of muscles that are visible along their body called myomeres, and a jawless mouth.

Food: Organic matter and microscopic organisms

Habitat: Require two distinctly different habitats that are connected by free flowing (free of dams) stretches of streams. Adults are found in clear brooks with fast flowing water and either sand or gravel bottoms. Juveniles or ammocoetes are found in slow moving water buried in soft substrate of medium to large streams. In some areas, such as the hocking hills region, large spawning groups can be witnessed in very small rocky streams in the spring.

Cool Fact: Adults are dark tan above and lighter below prior to spawning. During spawning, adults become blue-black in color.

Black Hand Sandstone

Spectacular Blackhand Sandstone can only be found through a small portion of southeast Ohio. It is located, in a crooked strip, from the hills around Newark through the southern part of the Hocking Hills area around Logan.

This sandstone got its name "Blackhand" from a large black handprint that was sketched on a sandstone cliff that overlooked the Licking River near Newark. It is thought that the hand guided the Indians to the great flint deposits found at Flint Ridge.

Blackhand Sandstone was formed over 300 million years ago when most of Ohio was covered by a shallow sea. Sand was eroded from distant mountains and floated down the streams into Ohio's sea where it collected in a long, narrow delta.

The same waters that helped form the Blackhand Sandstone, also eroded it over time. The groundwater slowly washed away the cement holding the particles of sand together and eventually began washing away the sand itself.

Because of its thickness and resistance to erosion, the Black Hand forms sheer cliffs and gorges. A less well-cemented middle portion of the unit weathers more rapidly than the upper or lower parts and forms recesses or rock-shelter caves. Waterfalls are common where the Black Hand is exposed.