

2026 LANCASTER COUNTY MIDDLE SCHOOL ENVIROTHON BACKYARD WILDLIFE

GRAY SQUIRREL: Pennsylvania's most common squirrel, adults weigh 1 to 1.5 lbs. and are 18 to 20" long; about half this length is a broad, bushy tail. Albinism (white coloration) is rare but melanism (black coloration) is fairly common. Once, black phase gray squirrels were found statewide; today they occur most often in the northcentral counties. These *herbivores* feed mostly on *mast*; acorns, hickory nuts, walnuts, and beechnuts. Other foods include berries, mushrooms, pine seeds, dogwood, wild cherry and black gum fruits, and corn. Gray squirrels are *diurnal*. Hawks, owls, foxes, and tree-climbing snakes kill young squirrels, but adults are not easily taken.



Predator's effect on the population is low. The squirrel's food source is the key to population numbers. Maximum life span can reach 10 years, but few live more than three years. Gray squirrels breed in late winter or early spring and may produce a second *litter* in July or August.

SKULL:

Strong insertion points for jaw muscles are evident, as are the sharp incisors, both of which support the food habits of this species.

TRACK:

Front Paw Prints: Although their prints are around the same size as those left by rabbits, squirrels have front paws with four narrow toes tipped with tiny claws. **Hind Paw Prints:** A squirrel's larger rear paws also feature five distinct toes with a large pad at the heel.



WHITE-FOOTED MOUSE: image -

<https://ymcagbw.org/blog/white-footed-mouse> This *nocturnal* mouse may be the most abundant *rodent* in Pennsylvania. The coat is reddish brown above, white on the belly and feet. The white-footed mouse nests in stone walls, rock crevices, under old boards, and in woodchuck burrows, beehives, tree cavities, and the abandoned nests of squirrels and birds. They do not dig burrows but use the runways of other small mammals. This mouse is very agile and can



climb trees. White-footed mice consume about a third of their bodyweight daily. Primarily *herbivores*, this mouse eats seeds, nuts, berries, fungi, plant matter, insects (namely caterpillars and ground beetles), centipedes, snails, and small birds and mice. They *cache* food in autumn, carrying seeds in their cheek pouches to chambers beneath logs and stumps. This species average three to four litters per year with each litter consisting of 3-7 young apiece. Females can reproduce at 2 months old.

WHITE-TAILED DEER: The state mammal, the white-tailed deer is an herbivore. Yet deer don't eat like cows (*grazers*) instead deer are *browsers*. That means they eat a wide variety of plants. In one Pennsylvania study, biologists checked the stomach contents of road-killed deer and discovered over 100 different plants deer had eaten. That means when too many deer are present they can destroy their *habitat*. This is called exceeding the habitat's *carrying capacity*. In neighborhoods, deer can destroy lawns, shrubs, and gardens. In 2012, Chronic Wasting Disease (CWD) was discovered in a captive deer on a farm in Adams County. CWD is a brain and nervous system disease found in deer and elk in certain geographic areas of North America. This disease attacks the brains of infected deer and elk and results in death of the animal. The Game Commission has responded by declaring parts of counties with affected deer as a Disease Management Area (DMA). This will require all successful hunters in this DMA to have their deer checked for CWD. This will allow the Game Commission to monitor and determine if CWD has spread to the wild deer population.



TRACK: The hoofed toes of deer come to a point at the front of their print, pointing in the direction of travel and forming an inverted heart. To discover whether the deer was walking, trotting or galloping, look at the pattern of the tracks. Start by trying to identify the tracks corresponding to each of the deer's four feet. A great way to identify the left and right is by visualizing a straight line, separating them down the middle. Then, find the front and hind tracks. The front tracks are usually a little bit bigger than the hind ones, but the difference can be very subtle. Now, you can measure the distance between the tracks left by the same foot. If it's about 18 inches, the deer was walking. If it's more, the deer was trotting. If you can see an open space separating the four tracks, this means that the deer was galloping!



SOUTHERN FLYING SQUIRREL: The southern flying squirrel is found throughout Pennsylvania and is slightly smaller than the closely related Northern Flying Squirrel. Adults are 8 to 10 inches long, including a 3 to 5” tail. Weights range from 1.5 to 3 ounces. Their soft fur is grayish brown on the back and pearly white on the belly. The large, dark eyes are adapted for *nocturnal* activity. Flying squirrels are *arboreal* although they will still feed on the ground. They feature a loose fold of skin along their belly that when stretched forms an airfoil they can glide with up to 40 yards. Flying squirrels eat nuts; seeds; winter buds from Hemlock trees, fruits berries and fungi. As *omnivores*, they also feed on moths, beetles, spiders, birds and their eggs, small mice, and shrews. Owls and house cats are major predators and foxes, coyotes, weasels, skunks, raccoons, and black rat snakes also take them. Their life span is estimated at 5 years.



FERAL HOUSE CAT: Domestic cats originated from the European and African Wild Cat. The domestic cat is now considered a separate *species*. These *non-native* cats were introduced worldwide mainly by colonists from Europe. It has been estimated that between 2 to 4 million rural free ranging cats are in Pennsylvania. There is no doubt that these free ranging cats kill wildlife and a lot of it. Nationwide, rural cats probably kill over a billion small mammals and hundreds of millions of birds each year. These *feral* cats outnumber *native* predators and when present in large numbers, cats can reduce the amount of prey for wild predators like hawks, owls, and weasels. An example of how cat populations affect wildlife, consider that in 1989 a cat discovered and killed the last king rail (a Pennsylvania *endangered* bird) known to be born in Pennsylvania. Worldwide, cats may have been involved in the *extinction* of more bird species than any other cause except *habitat* destruction.



[Feral vs. Stray Cats Meaning | What is a Feral Cat?](#)
[15 Facts You Should Know About Feral Cats - Cats.com](#)

LITTLE BROWN BAT: Bats are the only mammals that fly. Their wings are thin membranes of skin stretched from fore to hind leg, and from hind legs to tail. Their long slender finger bones act as supports, stretching the skin tight for flying and fold the wings alongside the body. All Pennsylvania bats are *insectivores* and belong to the common or evening bat family. The little brown bat is Pennsylvania's most common bat and is found statewide. The little brown bat makes several feeding flights each night, and is capable of eating 1,200 insects a night. After *hibernation*,



females gather in summer roosting colonies of just a few to 100 or more in attics, barns, sheds, and other dark, hot areas. Males are solitary, roosting in hollow trees, under loose bark, behind loose shingles, and in rocks. This species has been hit hard with White Nose Syndrome (WNS), a fungus that wakes bats in hibernations and leads to loss of life through starvation or freezing temperatures. WNS has affected a significant part of the population. WNS is believed to have come to New York State from Europe; disturbing hibernation it causes them to burn up their fat reserves and prevents them from returning to hibernation.

SKULL:A little brown bat skull is characterized by a short snout, gently sloped forehead, and a braincase that is nearly circular but somewhat flattened. It is small, with a length of approximately 14–16 mm (0.55–0.63 in), and lacks a sagittal crest ridge, which helps distinguish it from other bats



AMERICAN ROBIN: The American robin is often the first sign of spring and hops about on lawns, meadows, and golf courses looking for earthworms. It also eats insects, fruit, and berries. Occasionally comes to feeders for fruit. Nests are made of grasses and middle layer of mud, lined with fine grasses, placed on a horizontal limb of shrub, tree, or on a building ledge. Both parents feed the young. In fall, it migrates south often in waves of hundreds or thousands in evenly spaced flight, which is strong and direct. Some winter as far south as Guatemala. In Pennsylvania, the American robin is thought to be the most abundant bird species.



Call: https://www.allaboutbirds.org/guide/American_Robin/

RUBY-THROATED HUMMINGBIRD: The only breeding hummingbird east of the Mississippi River. Eats flower nectar, insects, spiders, sap from sap-sucker-drilled holes. Visits hummingbird feeders. Do not use red-colored water in feeders; research indicates the dyes are not good for these unique birds. Ruby-throated hummingbirds are fairly common in the state; found in gardens and woodland edges. With warming climates, plentiful feeders, and late-blooming sage, more are showing up in the North and a few have attempted to over-winter.



HOUSE WREN: image- https://www.allaboutbirds.org/guide/House_Wren/id Plump little bird with short tail often balanced upwards; upper feathers reddish brown and grayish brown to white underneath. Nest made of twigs lined with grass, rootlets, and feathers placed in a wide variety of cavities. Prefers woods edges in rural and suburban areas. These birds feed on insects, spiders, millipedes, and snails. The species is found throughout the United States. Birds from the northeast winter mainly in Georgia and Florida. The oldest house wren on record lived seven years, but most house wrens survive for a year or two. House wrens benefit from *forest fragmentation* and do well in town and residential areas. They have a bubbly energetic personality with trilling songs.



Call: https://www.allaboutbirds.org/guide/Northern_House_Wren/

NORTHERN FLICKER: A woodpecker, the Northern flicker with a long- flared tail. Feeds on the ground, enjoys ants, which are 45% of its diet; also catches insects in air and eats fruits, berries, and seeds. Visits bird feeders, especially those with suet. Appears mostly brown, this flicker is known for a white patch visible from behind when it perches on a branch, and a closer look will show black spots, bars, and moon like crescents in black shades. Underneath its wings, feathers are bright yellow. Its feet are designed for climbing vertically on trees with two toes facing forward and two toes that face backward. Fairly common in open forest, parks, and gardens. Flickers winter in the southern United States.

Call: https://www.allaboutbirds.org/guide/northern_flicker



COOPER'S HAWK: Distinguished from Sharp-shinned hawk by longer, rounded tail, larger head. A member of the *Accipiter* family of hawks. Cooper's hawks prey largely on songbirds, some small mammals. Often hunts near bird feeders. During breeding season has a regular feeding route where it hunts for common, medium-sized birds such as Mourning doves, jays, and starlings. Will perch on telephone poles. Named in 1828 after William Cooper, a New York naturalist. In Pennsylvania, many migrating hawks follow ridges paralleling the Allegheny Plateau, climbing high on thermals that rise along these ridges. Hawk Mountain, near Kempton in southeastern Pennsylvania, is a famous spot to observe migrating hawks.



GRAY CATBIRD: All gray with a black cap. Feeds on the ground and in leaves of trees and shrubs, eating various insects, as well as spiders, wild grapes, and berries. Both male and female give the "meow" call in alarm situations. This songbird is a *neo-tropical migrant* wintering in coastal Southeast and Central America. Featuring a variety of calls, the ability comes from the structure of the syrinx, or voice box, whose two sides operate independently, letting the bird sing with two voices at the same time. Catbirds destroy eggs and nestlings of other species, including wood pewees, robins, and sparrows; biologists don't know whether this behavior represents an attack on competitors or a feeding strategy.



Call: https://www.allaboutbirds.org/guide/Gray_Catbird/

ENGLISH HOUSE SPARROW: This non-native, invasive species can be found in urban areas, parks, and open farmland. Introduced from England in the middle of the 1800's. It is aggressive and competes with Pennsylvania's native cavity-nesting species of birds for nest spots. Will kill other adult birds, nestlings, and eggs of a variety of species in order to take over a birdhouse or cavity. Feeds on the ground and in shrubbery for insects, spiders, small fruit, weed seeds, waste grain, and crumbs. Their nests are made of straw, weeds, trash, grass, lined with feathers, placed in any natural or constructed cavity, such as a birdhouse, under eaves of house, in signs or nooks of commercial buildings.

