



MAMMALS OF OHIO *field guide*

DIVISION OF WILDLIFE



About this Book

Below are some helpful symbols for quick comparisons and identification. They are located in the same place for each species throughout this publication. Definitions for the scientific terms used in this publication can be found at the end in the glossary.



Activity

Diurnal • Most active during the day

Nocturnal • Most active at night

Crepuscular • Most active at dawn and dusk

A word about diurnal and nocturnal classifications. In nature, it is virtually impossible to apply hard and fast categories. There can be a large amount of overlap among species, and for individuals within species, in terms of daily and/or seasonal behavior habits. It is possible for the activity patterns of mammals to change due to variations in weather, food availability or human disturbances. The designation of diurnal or nocturnal represent the most common activity patterns of each species.

Tracks & Skulls

Many mammals can be elusive to sighting, leaving only a trail of clues that they were present. Careful observation is required to detect their presence. A significant sign that a mammal resides or has passed through an area are the tracks they leave behind. This guide illustrates the tracks of the relevant species to help identify them in the field.

Method of Feeding

Carnivore • Feeds primarily on meat

Herbivore • Feeds primarily on plants

Insectivore • Feeds primarily on insects

Omnivore • Feeds on both plants and meat

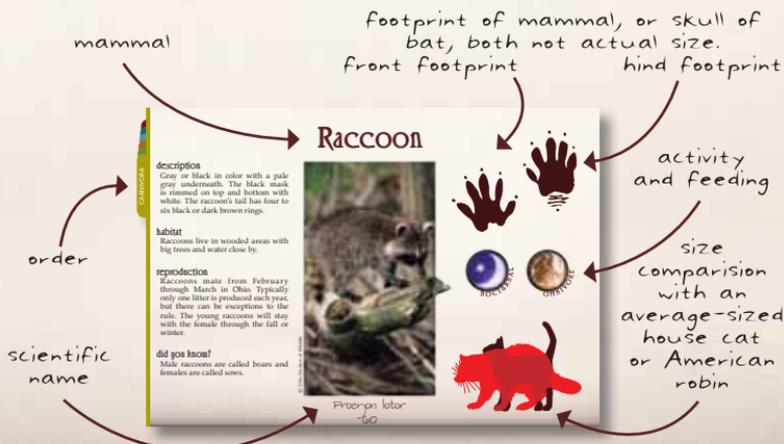


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Class Mammalia

What exactly makes an animal a mammal? First of all, all mammals have hair or fur. They also have *endothermic* (warm-blooded) bodies, meaning the body can stay at a nearly constant temperature, regardless of the outside environment. Most importantly, female mammals have mammary glands that produce milk for their offspring. Only mammals can provide nourishment to their young in this way. All of this should sound familiar because humans are mammals too!

Although different species of mammals have certain characteristics in common, the mammalian class is still an incredibly diverse group. Mammals come in all sorts of shapes and sizes, the smallest being the pygmy shrew, weighing a mere one-tenth of an ounce, and the largest being the blue whale, which can reach 160 tons - that's 352,740 pounds! A vast array of adaptations among

mammals allows different species to live very different lifestyles. Mammals that fly, glide, run, burrow, jump, or swim have evolved special



morphologies, over time that allow them to do so. Such adaptations help them to exploit different habitats, so

much so that mammals can be found on every continent and in every ocean on earth. In the state of Ohio alone, the diversity of mammals is evident and can be seen from the tiny mouse living in a barn to the big black bear lumbering through a forest. In this guide, the mammal orders appear in taxonomic order, meaning they are listed according to how they evolved in relation to each other. In other words, the more "primitive" groups are listed first and the "advanced" mammals are last. The Virginia opossum, a marsupial, has five fingers and toes, which is a characteristic that is considered to be very primitive among mammals. White-tailed deer, on the other hand, have a divided or split hoof considered to be more advanced in evolution. Fewer toes with hooves allow ungulates to take longer strides and run faster than flat-footed mammals with five toes.

ORDER

Didelphimorphia

Marsupials are a fascinating group because their mode of reproduction is unique among mammals. A chief characteristic of marsupials is the presence of a *marsupium*, or pouch, on the abdomen of the females. Unlike most mammals, marsupials, such as opossums, are not fully developed when born. The premature young are equipped with tiny front legs so that they can crawl to the female's pouch immediately after birth, where they will continue to grow and develop.

Opossums are common inhabitants of the Western Hemisphere. They are among the oldest and most primitive mammals in the world. Opossums have long and scaly prehensile tails and an opposable toe on each foot that acts much like a thumb. These characteristics allow for a certain dexterity in opossums, which helps when climbing trees and invading trash cans.

Virginia Opossum



description

An adult is about the size of a house cat, with coarse, grizzled, grayish fur. It has a long, scaly tail, ears without fur, and a long, pointed snout that ends in a pink nose.

habitat

Quite adaptable and can also be found in suburbia and the city. Ideal habitat, however, is an area with woods, wetlands, and farmland interspersed.

reproduction

A female opossum carries her young internally for approximately two weeks before they are born. Opossums are undeveloped and tiny (1/15 ounce) at birth. The offspring must crawl to a teat in the female's pouch to survive. At about three months of age, young opossums emerge from the pouch for short periods and will hitch a ride on the adult female's back to get from place to place.



© Ohio Division of Wildlife

Didelphis virginiana

did you know?

The opossum is the only marsupial in North America.



ORDER

Insectivora

As indicated by the order's name, Insectivora, these animals feed primarily on insects. The insectivore group includes shrews and moles; small mammals that are rodent-like in appearance. Shrews and moles spend much of their time in dark, underground tunnels, thus having little need for the sense of sight. Because of this, the eyes are often very small and vision is reduced. Instead, these insectivores use their exceptional senses of smell and touch to get around and find food.

Masked Shrew

description

The masked shrew is grayish-brown in color, with the under parts paler than the upper parts.

habitat

Masked shrews can be found in a variety of habitats, including forests, open country, and brushland.

reproduction

Masked shrews construct nests out of dry leaves and grasses, usually in stumps or under logs. They produce more than one litter per year with two to 10 young per litter.

did you know?

A shrew's heart beats more than 1,200 times per minute!



© Gary Meszaros

Sorex cinereus
8



Least Shrew

description

Fur is dense, velvety, and cinnamon in color. The color and extremely short tail help to distinguish it from other shrews.

habitat

Least shrews prefer open, grass-covered or brushy areas. It can also be found in marshes.

reproduction

Least shrews nest under debris, underground, and sometimes in beehives. In Ohio, they breed from March to November, with more than one litter per year, and about three to six young per litter.

did you know?

Unlike most shrews, the least is somewhat social. In the winter, more than one shrew may nest together for warmth.



© Gregory G. Dimijian, MD / Photo Researchers Inc.

Cryptotis parva
9



Smoky Shrew

description

Uniformly dull brown except for a bicolored tail that is yellowish below and brown above. Its feet are pale in color.

habitat

Smoky shrews generally live in the leaf litter of birch and hemlock forests.

reproduction

After a gestation period of three weeks, two to seven naked, blind young are born in the spring. Another litter may be produced later in the summer.

did you know?

Smoky shrews travel and forage in underground tunnel systems, but they usually nest in stumps or logs.



© Gary Meszaros

Sorex fumus
10



Pygmy Shrew

description

This tiny shrew has a pointed nose and narrow head. The hair is gray-brown to gray with a lighter colored underbelly.

habitat

Pygmy shrews can live in a variety of habitats, including wooded and open areas, swamps, grassy clearings, and floodplains.

reproduction

Pygmy shrews produce one litter a year, between June and August, with three to eight young in a litter. The average gestation period is 19 days.

did you know?

The pygmy shrew is the smallest living mammal. Its weight is about equal to that of a dime!



© E.R. DeGginger/Photo Researchers, Inc.



Sorex hoyi
||

Northern Short-tailed Shrew

description

Short, dense, slate-gray colored fur and a short tail. The snout is short and heavy.

habitat

These shrews are not restricted to a particular habitat, but they are most likely found in forests, grasslands, marshes, and brushy areas.

reproduction

The breeding season occurs from March to September with females producing up to three litters per year. Gestation periods usually last 21 days and five to eight young are in a litter.

did you know?

The salivary glands of the Northern short-tailed shrew produce a toxic material which helps in subduing prey, such as snails and earthworms.



© Ohio Division of Wildlife

Blarina brevicauda

12



Eastern Mole

description

Broad front feet with the palms turned outward; lack of external ears. The tiny eyes are covered with a thin layer of skin. Their soft fur is a silvery to slate-gray color. The tail is hairless.

habitat

Eastern moles burrow underground in areas with moist, sandy loam soil such as lawns, golf courses, gardens, and fields.

reproduction

Breeding takes place in the spring. After a gestation period of about six weeks, four to five young are born. They live in a nest in the tunnel system with the female until they reach maturity at about one month of age.

did you know?

While the Eastern mole may cause damage to lawns and gardens, they also aerate the soil and eat unwanted insects.



© Ohio Division of Wildlife

Scalopus aquaticus
13



Hairy-tailed Mole

description

Looks much like the Eastern mole, except it is smaller and has a distinctly hairy tail.

habitat

Hairy-tailed moles are found in sandy loam soils with good vegetative cover; they avoid heavy, wet soils.

reproduction

Hairy-tailed moles breed once or twice a year. After a gestation period of about four weeks, an average of four young are born. They live in a nest in the tunnel system with the female until they reach maturity at about one month of age.

did you know?

Underground tunnels may be used for eight years or more by many generations of these moles.

© D.C. Gordon/ American Soc. Mammalogists



Parascalops breweri
14



Star-nosed Mole

description

Easily identified by its nose, which is surrounded by 22 fingerlike, fleshy tentacles. The body is dark brown or black and the tail is hairy.

habitat

Star-nosed moles inhabit low, wet soil near lakes or streams.

reproduction

Male and female star-nosed moles pair up in the fall and remain together throughout the mating season. Only one litter per year is produced with three to seven young being born between April and June.

did you know?

Unlike most moles, the star-nosed is semiaquatic, so many of its tunnels open under the surface of a stream or lake.



© Ohio Division of Wildlife



Condylura cristata
15

ORDER

Chiroptera

Bats are especially unique because they are the only group of mammals that have wings and can fly. A few other mammals have “gliding membranes” that allow them to soar through air for a short time, but they cannot truly fly like bats and birds.

All Ohio bats are insectivorous and eat flying insects that they can catch on the wing, but some species in other parts of the world may feed on fruit, blood, or other vertebrates. Because bats are nocturnal and it is not easy to see in the dark, they use echolocation to navigate and find food at night. Bats echolocate by making high-pitched sounds which produce sound waves that bounce off objects in the environment. The bats listen to the returning echo to determine details about their surroundings.

Bats typically mate in the fall, right before winter hibernation begins. However, ovulation and fertilization of the egg are delayed until the females awake from hibernation the following spring. This is referred to as delayed fertilization.

Little Brown Bat

description

The fur is uniformly dark brown on the upper parts, with slightly paler, grayish under parts. The wing membranes are dark brown.

habitat

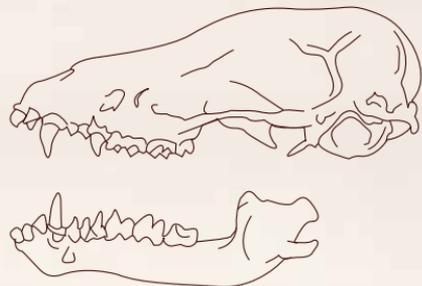
Little brown bats are found in forested areas along streams and lakes. They are also found in urban and/or suburban areas.

did you know?

Bats use roosting sites (e.g., trees, bat boxes, buildings) for pup rearing during the summer.



© R. K. LaVal / American Soc. Mammalogists



Myotis lucifugus
17

Big Brown Bat

description

Uniformly medium to dark brown on the upper parts, with slightly paler under parts. The fur is relatively long and silky in appearance, compared to other Ohio bats. The ears and wing membranes are dark brown.

habitat

Big brown bats are found in a variety of habitats, including fields, forest openings, urban and/or suburban areas, and around water.

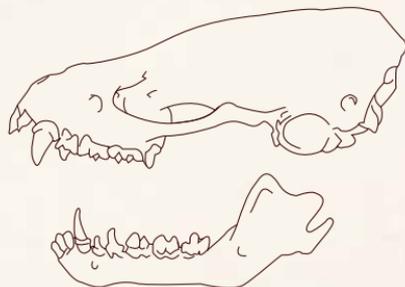
did you know?

Some bat species hibernate in caves, mines, or human-made structures, whereas other bat species hibernate in leaf litter or under tree bark during the winter.



© Ohio Division of Wildlife

Eptesicus fuscus
18



Rafinesque's Big-eared Bat

description

This species has exceptionally long ears and two large fleshy lumps on the nose, bordering the nostrils. The fur is long and silky.

habitat

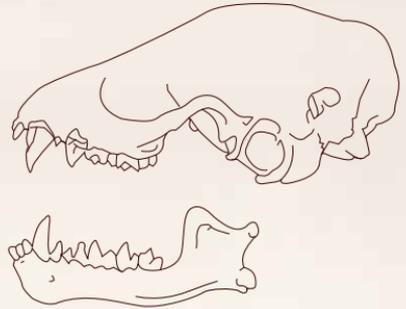
These bats are found in forested areas. They roost in cave entrances, hollow trees, and crevices behind bark.

did you know?

Most bat pups are weaned and learn to fly at four to six weeks of age.



© Merlin D. Tuttle / Bat Conservation International Inc.



Corynorhinus rafinesquii

Northern Long-eared Bat

description

The fur is dull in color and their large ears extend slightly beyond the tip of the nose when laid forward.

habitat

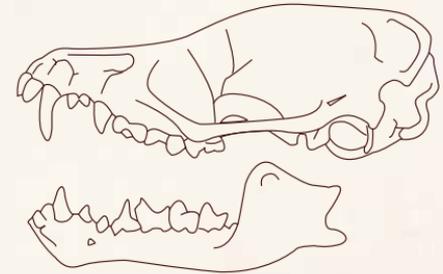
Northern long-eared bats inhabit woods and can be found along wooded streams.

did you know?

During the summer, adult female bats form maternity colonies and adult male bats roost in solitary bachelor roosts.



© R.K. LaVal/ American Soc. Mammalogists



NOCTURNAL



INSECTIVORE



Myotis septentrionalis
20

Tri-colored Bat

description

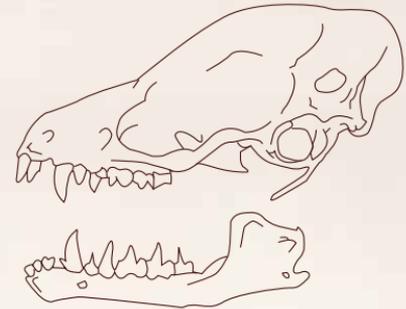
Varies in color from a pale yellowish-brown to a dark reddish-brown. The forearms are pinkish and the wing membrane is black. The ears are longer than they are wide. This species is the smallest of Ohio's bats.

habitat

Tri-colored bats prefer open woods near water.

did you know?

Although young bats are altricial, they are able to make a clicking sound to signal the mother.



NOCTURNAL



INSECTIVORE



© Ohio Division of Wildlife

Perimyotis subflavus
21

Red Bat

description

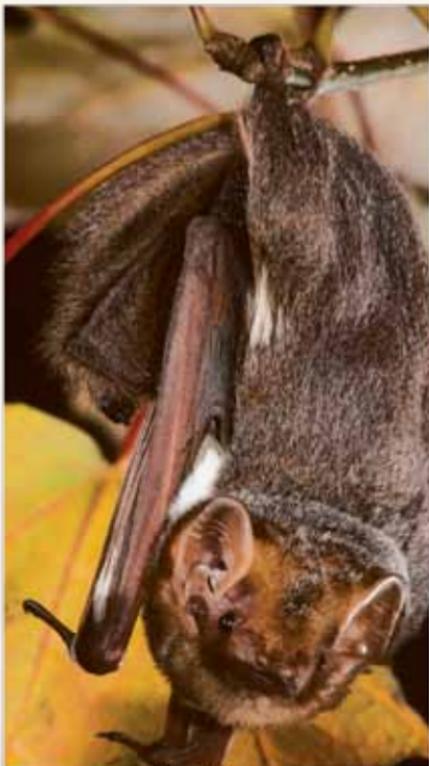
Males are bright red to reddish-brown in color and females are usually yellowish with a reddish tint. Dense, soft fur covers the body, including the *uropatagium* (the skin connecting its legs and tail).

habitat

Red bats roost among the foliage in forests, forest edges, and hedgerows.

did you know?

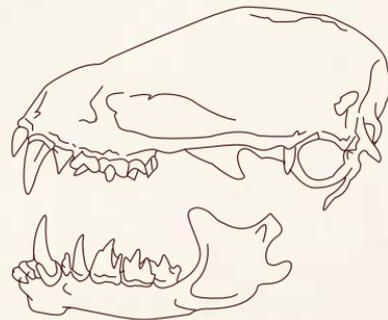
Some red bats, as well as other forest dwelling bats, travel to warmer southern states for the winter. The red bats that stay in Ohio for the winter burrow down into the leaf litter or roost within tree cavities. They may forage for insects on warm, sunny winter days.



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Lasiurus borealis

22



Hoary Bat

description

The largest bat in Ohio; its frosted appearance is because of its dark, white-tipped fur. Fur covers its body, including the uropatagium.

habitat

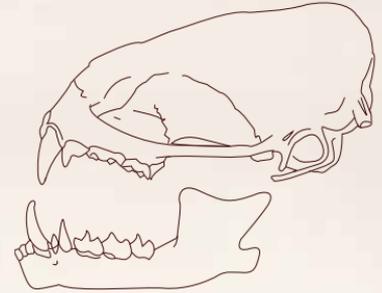
Hoary bats roost in the foliage of deciduous and coniferous forests.

did you know?

Because they are nocturnal, bats feed one hour or two after sunset and before sunrise.



© Gary Retherford / Photo Researchers Inc.



Lasiurus cinereus

Silver-haired Bat

description

Can be easily identified by the frosted appearance made by its white-tipped black hairs.

habitat

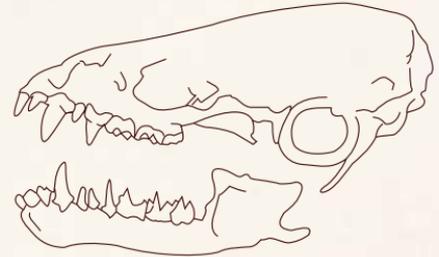
Silver-haired bats are found in mature northern forests with ponds and streams nearby.

did you know?

Contrary to popular belief, attacks by bats are extremely rare.



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Lasiurus noctivagans
24

Eastern Small-footed Bat

description

Small with a black facial mask, small black ears, and small feet that measure 0.2-0.3 inches (6-8 mm) in length.

habitat

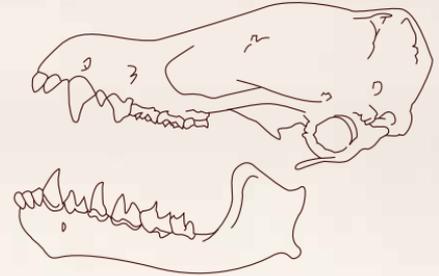
Eastern small-footed bats are found in deciduous and coniferous forests in hilly or mountainous areas.

did you know?

Contrary to popular belief, most bats do not carry rabies.



© Ohio Division of Wildlife



Myotis leibii
25

Evening Bat

description

A medium-sized brown bat that looks like a smaller version of the big brown bat. The hairs on its back are a bronze-brown, whereas the hairs on its underside are slightly lighter. The muzzle is hairless and black.

habitat

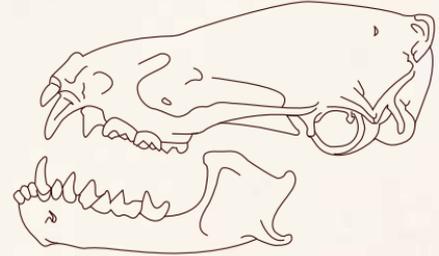
Evening bats prefer forest and open habitats, such as river corridors and wetlands.

did you know?

The evening bat is a forest bat and is rarely found in caves.



© Merlin D. Tuttle / Bat Conservation International Inc.



NOCTURNAL



INSECTIVORE



Nycticeius humeralis
26

Indiana Bat

description

Similar in appearance to the little brown bat, but this species has shorter inconspicuous toe hairs and a keel on the calcar (cartilage near the tail).

habitat

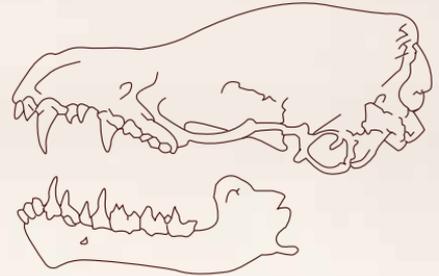
Indiana bats are found in wooded or semi-wooded areas along streams.

did you know?

Contrary to popular belief, bats are not blind, nor are they interested in anyone's hair.



© Merlin D. Tuttle / Bat Conservation International Inc.



Myotis sodalis
27

ORDER

Lagomorpha

The order Lagomorpha includes rabbits, hares, and pikas. Rabbits and hares are stout-bodied animals that resemble large rodents with short tails and long ears. Their big feet and strong hind legs are specialized for running and quickly escaping danger. Pikas are a similar animal found in the western U.S.

Like rodents, rabbits and hares have two large incisors (front teeth) that continually grow and must be kept short by gnawing, or else they could grow too long and prevent eating. All species in the rabbit family are herbivores that feed on grasses and other plants.

Eastern Cottontail Rabbit

description

A large rabbit with a brownish-gray body, long ears, and a small white tuft of a tail that resembles a cotton ball.

habitat

Open areas bordered by thickets or brushy areas. Rabbits prefer old fields with bunch grasses and weeds but will also be found in suburban areas if brushy escape cover is near.

reproduction

The nest is a shallow depression made in the ground, lined with dry grass and fur from the female's body. The young are born helpless with very fine fur and closed eyes that do not open for four to five days. The female conceals the young in the nest and only returns once or twice per day to feed them.

did you know?

Cottontails can run at speeds up to 18 miles per hour!



© Ohio Division of Wildlife

Sylvilagus floridanus
29



Snowshoe Hare

description

Hares are larger than rabbits. Their hind feet can be up to seven inches long and have webbing between the toes. Their feet act like snowshoes to allow the hare to stay on top of the snow while running and jumping. During the winter, snowshoe hares have a thick white coat that helps them blend in with the snow. In the spring, they shed their winter fur and grow thin brown summer fur.

habitat

Hares are found in open fields, fence rows, swamps, riverside thickets, cedar bogs, and coniferous lowlands.

reproduction

Females may have up to four litters a year, depending on environmental conditions. The young hide in separate locations during the day and only come together for a few minutes at a time to nurse. The female cares for the young until they are about four weeks old, when they are weaned and disperse.



© Ohio Division of Wildlife

Lepus americanus
30



did you know?

Hares and rabbits are different in several ways: Young hares are born with fur, open eyes, and are able to run (precocial), but rabbits are born almost hairless with eyes closed (altricial) and don't leave the nest for several weeks.



ORDER Rodentia

Rodents are the most numerous mammals, with over 2,000 species in the world today. Although diverse, all rodents have incisors that grow continuously and must be kept short by gnawing.

Many rodents, such as mice and voles, are important food sources for predators, making them a vital part of the ecosystem. Despite their popularity as prey, rodents are considered to be one of the most successful groups of mammals because of their high reproductive rate and ability to adapt to almost any environment.

Eastern Chipmunk

description

Reddish-brown in color with five black stripes on the back. These stripes are separated by brown, white, or gray colors.

habitat

Chipmunks inhabit many deciduous forests and brushy areas.

reproduction

Like others of the squirrel family, the Eastern chipmunk has two breeding seasons; one in early spring and the other in early summer. Four to five young are born after a gestation period of about 31 days.

did you know?

Eastern chipmunks do not hibernate continuously. Instead, they keep large stores of food in their burrows that they periodically snack on during the winter months.



© Ohio Division of Wildlife

Tamias striatus



Thirteen-lined Ground Squirrel

description

Brown with 13 whitish stripes on the sides and back. They are small, measuring about seven to 12 inches long, including a three-to five-inch long tail.

habitat

These ground squirrels inhabit open short to mid-grass prairies and golf courses.

reproduction

Soon after hibernation ends in April, these squirrels mate. After a gestation period of 28 days, seven to 10 young are born. They mature quickly and leave the burrow after about a month. Females usually produce only one litter a year.

did you know?

The thirteen-lined ground squirrel hibernates about six months out of the year!



© Mark Duffy / World of Stock



Spermophilus tridecemlineatus

Eastern Gray Squirrel

description

Gray with hairs that may have orange tips that will give the animal a reddish cast. Its belly is more of a grayish-white color.

habitat

Gray squirrels are found in large expanses of hardwood trees.

reproduction

Gray squirrels running up and down and around trees is thought to be a part of the courtship ritual. Young squirrels are reared in leaf nests, dens, and occasionally bird houses. Squirrels usually breed twice a year; in winter and in summer.

did you know?

Squirrels use two types of nests: leaf and den. Leaf nests are located in the crotches of tree branches and dens are formed in hollow tree trunks or branches.



© Ohio Division of Wildlife



DIURNAL



HERBIVORE



Sciurus carolinensis

Fox Squirrel

description

Slightly larger than the gray squirrel, the fox squirrel's body is a yellowish gray with a reddish-yellow belly, cheeks, and feet. Tufts behind the ears and the tips of its tail are yellowish-brown. The tail itself is a reddish-orange with a mixture of dark gray or black hairs throughout.

habitat

Fox squirrels inhabit deciduous and mixed forests.

reproduction

Fox squirrels usually mate twice a year; in December and June. A litter of two to three young are born after about 44 days. They are helpless and rely on the female's milk for at least five weeks.

did you know?

When a fox squirrel is threatened, it stands upright with its tail over its back, flicking it.



© Ohio Division of Wildlife

Sciurus niger
35



DIURNAL



HERBIVORE



Red Squirrel

description

The red squirrel is the smallest tree squirrel in Ohio. It has a uniformly yellowish or reddish coat and a whitish belly. The tail is bushy.

habitat

Red squirrels are found in coniferous and mixed forests.

reproduction

Red squirrels breed April-May and August-September. Two to seven young are born per litter after a gestation period of 38 days.

did you know?

Red squirrels store conifer cones in middens, or piles, instead of burying them like their larger cousins do. The middens made by red squirrels can be up to 30 feet across and 1.5 feet deep!



© Ohio Division of Wildlife

Tamiasciurus hudsonicus

36



Southern Flying Squirrel

description

Easily distinguished by a “gliding membrane,” which is a flap of loose skin that extends from wrist to ankle. When outstretched, this skin allows the squirrel to glide from tree to tree. The fur is an olive-brown color on the upper parts and white on the under parts.

habitat

Southern flying squirrels inhabit woodlands or forests of deciduous or mixed deciduous-coniferous trees.

reproduction

Breeding takes place twice a year, once between February and March and again between May and July. After a gestation period of about 40 days, two to six young are born.

did you know?

Most people don't realize that the flying squirrel is the most common squirrel in Ohio because it is nocturnal and seldom seen.



© Ohio Division of Wildlife



Glaucomys volans
37

Woodchuck

description

The coarse fur is usually grizzled grayish-brown with a reddish cast. The legs and feet are typically dark brown to black in color and are well suited for digging.

habitat

Woodchucks prefer open grasslands, pastures, and woodlands where it is easy to see predators such as humans, hawks, or coyotes.

reproduction

Immediately after coming out of hibernation in the spring, the male seeks a mate. The female gives birth to two to seven young that grow rapidly. By midsummer the female will drive the young off into nearby burrows, but she will continue to care for them until they develop territories of their own.

did you know?

Woodchucks are also called groundhogs or whistlepigs.



© Ohio Division of Wildlife

Marmota monax

38



American Beaver

description

Beavers are large furbearers with webbed feet, a flattened, paddle-like tail, and huge front teeth. They also have transparent eye membranes and closable nostrils and ears; adaptations suited for an aquatic existence.

habitat

Beavers are found in forested ponds, lakes, and rivers.

reproduction

Beavers are generally monogamous; young are born between April and July, after a gestation period of about 128 days. The kits are born furred, with their eyes open, and are able to swim within 24 hours.

did you know?

The beaver is North America's largest rodent, weighing up to 60 pounds! They eat bark and cambium, which is the softer growing tissue under the bark of trees.



© Ohio Division of Wildlife



CREPUSCULAR



HERBIVORE



Castor canadensis

Eastern Harvest Mouse

description

A rich, brown color, but the belly and the underside of the tail are paler than the back.

habitat

The Eastern harvest mouse inhabits old fields, marshes, and wet meadows.

reproduction

The baseball-sized, spherical nests are constructed on the ground out of shredded grasses. After a gestation period of about 21 days, a litter of two to five young is born between May and November.

did you know?

The Eastern harvest mouse is an excellent climber, and may spend a good

deal of its time foraging above ground in dense vegetation.

© R. W. Van Devender / American Soc. Mammalogists



Reithrodontomys humulis
40



Deer Mouse

description

About the size of a common house mouse. Their color ranges from a pale gray to a deep reddish brown. The tail is always sharply bicolored; it is white below and dark above.

habitat

Inhabits nearly every dry-land habitat within its range. They can be found in forests, grasslands, brushlands, agricultural fields, and deserts.

reproduction

Deer mice will nest in burrows, trees, and buildings. The average litter has five or six young. Usually two to four litters are produced each year. The young are altricial at birth but develop very quickly.

did you know?

When disturbed, deer mice may drum their front paws rapidly up and down against a hard surface; this may serve as a warning signal to other deer mice.



© Gary Meszaros

Peromyscus maniculatus

41



White-footed Mouse

description

The upper parts are a pale to rich reddish-brown. Its belly and feet are white. The tail is usually shorter than the entire length of the body.

habitat

Inhabits a variety of areas, but most often found in woody or brushy areas.

reproduction

This mouse produces two to four litters per year during the breeding season, which occurs between March and June. A litter of two to six young are born after a gestation period of 22 to 28 days.

did you know?

A distinctive behavior of white-footed mice is drumming on a hollow reed or a dry leaf with their front paws to produce a long musical buzzing.



© Ohio Division of Wildlife

Peromyscus leucopus
42



Allegheny Woodrat

description

Roughly the size of a gray squirrel; the body is brownish-gray in color and the undersides and feet are white. The tail is completely covered with hair and is blackish gray above, white underneath.

habitat

Allegheny woodrats can be found in rocky outcrops, such as cliffs and caves, in forested areas.

reproduction

Woodrats nest in rock crevices and usually produce three litters a year.

did you know?

The Allegheny woodrat's whiskers are so long that when pulled back, they reach the shoulders. This characteristic sets it apart from other rats.



© Ohio Division of Wildlife

Neotoma magister
43



Meadow Vole

description

Dark brown in color with a silvery to slightly buffy or dark gray belly and bi-colored tail. The fur is long and soft.

habitat

The most widely distributed of the voles; can be found in meadows, fields, grassy marshes, and other places near streams, lakes, and swamps.

reproduction

Meadow voles breed year-round with litters of one to nine after a gestation period of 21 days.

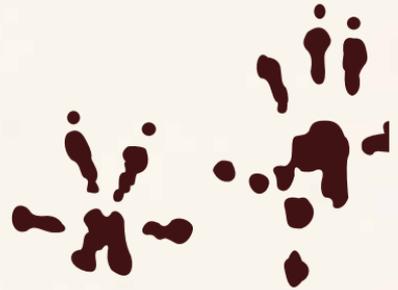
did you know?

Meadow voles are excellent swimmers!



© Gary Meszaros

Microtus pennsylvanicus
44



Southern Red-backed Vole

description

Distinguished from other voles by its reddish back and gray sides.

habitat

These voles prefer damp areas in coniferous, deciduous, or mixed forests.

reproduction

Females produce two or three litters a year, usually between March and October, with four to six young per litter. The gestation period is 17-19 days.

did you know?

When disturbed, red-backed voles utter a chirplike bark that can be heard three to six feet away.



© Robert J. Erwin / Photo Researchers Inc.

Clethrionomys gapperi
45



Pine Vole

description

This little vole has thick, soft, auburn colored fur with whitish or silvery under parts.

habitat

Eastern deciduous forests. They live on the forest floor in the thick layers of leaves and loose soil.

reproduction

Pine voles are monogamous animals and mating takes place in the spring through the fall. Females produce more than one litter per year, with an average of three to seven young per litter. Gestation lasts about 21 days. Nests are located under stumps or logs.

did you know?

Pine voles are also known as "woodland" voles.



© John Serrao / Photo Researchers Inc.



Microtus pinetorum
46

Prairie Vole

description

Grayish to dark brown hair tipped with brownish-yellow, giving it a grizzled look. Its belly is whitish or yellowish and its tail is relatively short.

habitat

Prairie voles are common in prairies, fencerows, old cemeteries, and other fairly dry places.

reproduction

Female prairie voles share an underground, grass-lined nest with their mate. Females give birth to three or four young usually between May and October, although they breed throughout the year.

did you know?

When above ground, voles use extensive runway systems through grass tunnels that help to hide them from predators.



© Gary Meszaros

Microtus ochrogaster
47



Southern Bog Lemming

description

Brownish gray upper parts and a grayish belly. Its tail is extremely short and its ears are nearly concealed by hair.

habitat

Southern bog lemmings live in low, damp bogs and meadows with heavy vegetative growth.

reproduction

Breeding takes place year round with most litters being produced between April and September. An average female will produce two to three litters a year, with three or four young per litter. Gestation lasts about 23 days.

did you know?

Bog lemmings travel via runways and underground tunnels. Nests are usually built from dry grasses and hidden under stumps.



© L.L. Master / American Soc. Mammalogists

Synagtomys coogeri
48



Muskrat

description

The fur is a dark brown that gets lighter around the throat. The tail is long and rat-like.

habitat

Muskrats live in aquatic areas, such as marshes, ponds, lakes, rivers, and canals.

reproduction

Females normally produce one to five litters per year, with each litter containing four to seven young. Young are born three to four weeks after breeding and are born hairless. Only two weeks after birth the young muskrats have fur and are able to swim. They are able to take care of themselves within a month and are on their own.

did you know?

Muskrats can swim at speeds of up to two to three miles per hour. It would take an Olympic swimmer to catch up to them!



© Ohio Division of Wildlife



onatra zibethicus

Norway Rat

description

A large member of the mouse family that can be distinguished by its grayish-brown color and long, scaly tail.

habitat

Norway rats inhabit any place where food and shelter can be found, including woodlands, open fields, garbage dumps, sewers, and basements.

reproduction

These rats are social animals and tend to breed in large groups, where communal care makes this species somewhat of a cooperative breeder. Litters of eight to 10 young are produced after a gestation period of 21-22 days.

did you know?

Female Norway rats have been known to produce up to 12 litters per year!



© Terry Whittaker / Photo Researchers Inc.



Rattus norvegicus
50

House Mouse

description

A small, gray-brown mouse with a gray or buff-colored belly. The tail is scaly.

habitat

Generally found in close association with humans. While house mice are occasionally found in fields, they usually live in buildings.

reproduction

The house mouse reproduces often with several litters per year. They produce litters of three to 11 young after a gestation period of 18-21 days.

did you know?

Because of their association with humans, house mice can live in areas that would otherwise be inhospitable for them, such as deserts and tundra.



© Ohio Division of Wildlife

Mus musculus
51



Meadow Jumping Mouse

description

Olive-yellow in color with a long tail and large hind feet. It has a tiny tuft of black hair at the tip of the tail.

habitat

Meadow jumping mice are found in a variety of habitats with herbaceous cover, but most often found in low, moist grasslands.

reproduction

The breeding season occurs after hibernation in April or May. Gestation lasts 18-21 days and four to five young are in a litter. Females will produce two or three litters per year.

did you know?

Meadow jumping mice and woodland jumping mice are similar and often confused. The meadow jumping mouse is smaller, duller in color, and does not have a white tip on its tail.



© Ohio Division of Wildlife

Zapus hudsonius
52



Woodland Jumping Mouse.

description

Identified by its bright yellowish sides, brownish back, white belly, large hind feet, and a long, white-tipped tail.

habitat

Woodland jumping mice live in brushy areas near water, including wet bogs and stream borders.

reproduction

Woodland jumping mice mate after emerging from hibernation. Young are born between June and September, after a gestation period of about 29 days. Females produce one or two litters per season, with three to five young per litter.

did you know?

Woodland jumping mice can jump as high as two feet (0.6 m) and as far as six feet (1.8 m)!



© Ohio Division of Wildlife

Nageoragus insignis
53



NOCTURNAL



OMNIVORE



Porcupine

description

Easy to identify by its spiny coat and heavy, stout body that makes it appear clumsy and slow. They are brown to black in color with bands of yellow on their spines.

habitat

Although uncommon in Ohio, the porcupine can be found in forested and brushy areas. It is often present in trees, where it is more at home than on the ground.

reproduction

After a gestation period of seven months, a female gives birth to one offspring in April or May. The young is born with soft quills that harden within minutes after birth.

did you know?

The porcupine is the second-largest rodent in North America, after the beaver.



© Richard Day / Daybreak Imagery

Erethizon dorsatum



ORDER

Carnivora

While the term “carnivorous” means to eat meat, not all carnivorous mammals are included in this order. Nor are all those included in Carnivora strictly carnivores. This extremely diverse group includes dogs, cats, bears, raccoons, and weasels.

Most carnivores have excellent senses, relatively large brains, and are strong runners. They also have teeth and claws that are specially adapted to cutting and tearing meat. All of these characteristics are beneficial to this group of efficient hunters.

Coyote

description

A slender animal, very similar in appearance to a medium-sized dog and much smaller than a wolf, a species not currently found in Ohio. The majority of coyotes are gray, though some show a rusty, brown or off-white coloration. It has a bushy tail which is usually tipped with black.

habitat

The coyote's strength is that it can adapt and exploit most any habitat to its advantage, including forests, clearcuts, and woodlots in rural and urban areas.

reproduction

Mating occurs between late January and March. A litter of about six young are born two months later. Both adults hunt for food and feed the young. At about three weeks of age, the young leave the den under the watch of the adults.



© Ohio Division of Wildlife

Canis latrans

56



did you know?

Although coyotes are small, they are the largest of the three members of the Canid (dog) family found in Ohio. The other two canids are the gray fox and the red fox.



Red Fox

description

Most commonly a rusty-red or reddish yellow color from its face down its back and sides. Its undersides, throat area, and cheeks are white. The legs, feet, and outside of the ears are black; its long, bushy tail has black hairs mixed with the red and ends in a white tip.

habitat

Red foxes are found in a variety of habitats, including mixed, cultivated, and wooded areas, as well as brushlands.

reproduction

Mating occurs in the winter and a litter of one to 10 kits is born in the spring. The male brings food to the nursing female until the young are weaned. They accompany the adults on hunting trips where they learn basic survival skills.



© Ohio Division of Wildlife



did you know?

Red foxes are solitary animals and do not travel in packs like wolves, which are not found in Ohio. They also hunt like cats because they stalk their prey.



Vulpes vulpes
57

Gray Fox

description

The coat color is a salt and pepper gray. A black stripe runs from the base of the tail and ends in a black tip. Its belly is white and a reddish band separates it from the gray sides.

habitat

Gray foxes live in mostly wooded areas and partially open brush land with little human presence.

reproduction

Breeding takes place in early spring. An average of four kits are born after a 53-day gestation period. While the female is nursing her offspring, the male will bring her food. By fall of the same year, the family unit breaks up when the young are mature enough to go out on their own.

did you know?

Gray foxes are the only canids (dogs), in North America that can climb trees.



© Ohio Division of Wildlife



Urocyon cinereoargenteus
58

Black Bear

description

Appears in a range of color phases that include black, chocolate brown, cinnamon brown, blue-black, and even white. Its face, in profile, is straight, a characteristic that helps differentiate it from the dish-faced grizzly bear, which is not found in Ohio.

habitat

Heavily wooded habitats, ranging from swamps and wetlands to dry upland hardwood and coniferous forests; prefers wooded cover with a dense understory.

reproduction

Black bears breed in June and July, but implantation of the egg is delayed until the fall. The sow (adult female) gives birth to two or three cubs during the winter while denning. The young remain with the female for the first year and a half of their lives. Bears usually give birth every other year.



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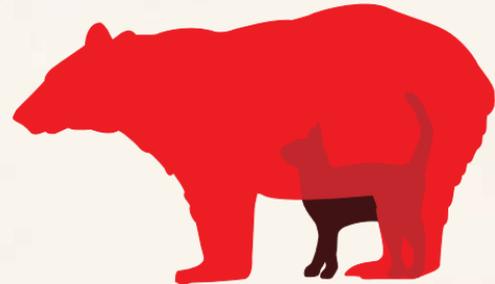
Ursus americanus

59



did you know?

Contrary to popular belief, bears primarily eat herbaceous material, and only a small portion of their diet consists of animal matter.



Raccoon

description

Gray or black in color with a pale gray underneath. The black mask is rimmed on top and bottom with white. The raccoon's tail has four to six black or dark brown rings.

habitat

Raccoons live in wooded areas with big trees and water close by.

reproduction

Raccoons mate from February through March in Ohio. Typically only one litter is produced each year, but there can be exceptions to the rule. The young raccoons will stay with the female through the fall or winter.

did you know?

Male raccoons are called boars and females are called sows.



© Ohio Division of Wildlife



Procyon lotor
60

Short-tailed Weasel

description

Has a brown coat in the summer and white coat in the winter. They are small, measuring seven to 13 inches in length. The tail is less than 40 percent of its total body length.

habitat

Short-tailed weasels have a wide range that includes open woodlands, brushy areas, grasslands, wetlands, and farmlands.

reproduction

Short-tailed weasels mate in the spring and early summer. A litter of four to eight young is born between April and May after a gestation period of about 280 days due to delayed implantation.

did you know?

Another name for the short-tailed weasel is "ermine."



© Dennis Caldwell / World of Stock

Mustela erminea
61



Long-tailed Weasel

description

Has a brown coat in the summer and white coat in the winter. Distinguished by its yellowish-white under parts and the black tip on the end of its long, bushy tail. The tail is more than 40 percent of its total body length.

habitat

Long-tailed weasels are found in most land habitats near water, but they avoid dense forests.

reproduction

Long-tailed weasels exhibit delayed implantation. Breeding occurs in the summer, but the egg does not begin to develop until March, making the gestation period between 205 and 337 days. Litters of four to eight are born in April or early May.

did you know?

Long-tailed weasels are very aggressive. They will even threaten animals much larger than themselves.



© Richard Day/ Daybreak Imagery

Mustela frenata

62



Least Weasel

description

Has a brown coat in the summer and white coat in the winter. It is distinguished from other weasels by the lack of a black tip on the end of its short tail.

habitat

Least weasels inhabit open areas such as meadows, marshes, brushy areas, and agricultural fields.

reproduction

Most breeding occurs in the spring and late summer, although they may reproduce any time of the year. Multiple litters of four to five young may be produced in a year.

did you know?

The least weasel is the smallest member of the weasel family and the smallest carnivore in the world.



© Ohio Division of Wildlife

Mustela nivalis

63



Mink

description

Has a long, narrow body with a bushy tail. The fur is usually a rich chocolate brown, but can look almost black. Looks much like a large ferret, but wild ferrets do not occur in Ohio.

habitat

Mink are found near running waters of streams and rivers and the standing waters of marshes and lakes, especially in wooded or brushy areas.

reproduction

Mating occurs in the winter. The female usually makes a den in a burrow along the bank of a stream or lake, or under a stump or log. The gestation period is variable due to delayed implantation.

did you know?

Like its distant relative the skunk, the mink has anal scent glands which can excrete a fluid that smells somewhat like skunk musk.



© Ohio Division of Wildlife



NEOVISON VISON
64

Badger

description

A stocky animal with a white stripe that extends back over the head from the nose. White fur surrounds the eyes and black cheek patches, or "badges," for which they are named. The rest of the body is a shaggy mix of silvery gray, black, and buff colors and the feet are black.

habitat

Badgers prefer shortgrass habitats, such as fields and pastures.

reproduction

Though mating occurs earlier, implantation of the fertilized egg is delayed until winter. One to five young are born in the spring, in a grass lined, underground nest. They are lightly furred and blind at birth.

did you know?

The badger has many adaptations for burrowing in the soil, including webbed toes, long claws, and an extra transparent eye membrane.



© Ohio Division of Wildlife



Taxidea taxus
65

River Otter

description

Highly adapted for swimming, with a long, tapered body and short, dense fur. Their large feet are completely webbed. The tail is flattened and muscular.

habitat

Otters live in aquatic habitats, including rivers, lakes, and marshes.

reproduction

Breeding occurs in early spring following the birth of a litter. Young otters are self-sufficient by the time they are five to six months, but the family group remains intact for at least seven or eight months or until just prior to the birth of a new litter.

did you know?

The otter's tail is important in the animal's swimming ability and makes up about 50 percent of its total body length.



© Ohio Division of Wildlife

Lontra canadensis
666



Striped Skunk

description

The hair is long and black, with a broad patch of white on its head and shoulders. Two white lines forming a "V" from the shoulder area may extend part way or all of the way to the base of the bushy tail.

habitat

Skunks are found in somewhat open areas with a mixture of habitats such as woods, grasslands, and agricultural clearings.

reproduction

Skunks mate in late February through March. Litters can be from two to 10 young. This group will stay together until the fall when the young will go off on their own.

did you know?

The skunk has perhaps the most well known defense system of any mammal, the scent-spraying mechanism. They usually do not discharge the foul smelling contents of their scent glands unless threatened.



© Richard Day / Daybreak Imagery

Meghitis meghitis
67



Bobcat

description

The coat color varies to include light gray, yellowish brown, buff, brown, and reddish brown. The ear tufts are short and the tail is bobbed (short) with black banding on the upper surface. The bobcat's larger cousin, the lynx, which is not found in Ohio, has longer ear tufts and a black tip on its tail.

habitat

A variety of habitats, including forests, old fields, and brush land. They often sleep in hidden dens, hollow trees, or rocky crevices.

reproduction

Breeding may occur at anytime throughout the year; mostly it occurs from December through May. The young are fully weaned at eight weeks and they will disperse and begin life on their own in the fall and late winter.



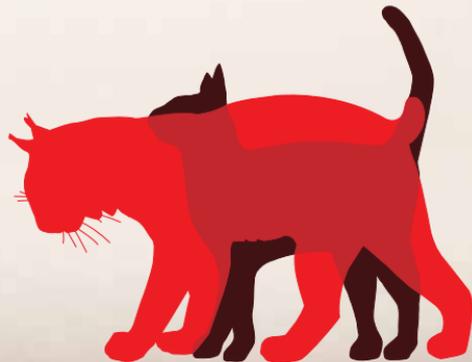
© Ohio Division of Wildlife

Lynx rufus
68



did you know?

The once common bobcat was extirpated from Ohio in 1850, but has since made a comeback.



ORDER

Artiodactyla

Ungulates are characterized by having hooves. Some may also have horns or antlers. Three species of ungulates once inhabited Ohio: Elk, American bison, and the white-tailed deer. Today, only the white-tailed deer still naturally occurs in the state.

White-tailed deer are ruminants. Ruminants consist of herbivorous ungulates that digest their food by first eating it, then regurgitating it in a semi-digested form called "cud." It then chews the food, or cud, again in order to break it down even more before it can be fully digested. This process is referred to as "rumination."

White-tailed Deer



description

Has two seasonal coats; a reddish tan spring and/or summer coat and a grayish winter coat. White patches are found around the eyes, on the throat, belly, tail (underside), and insides of the legs. When running, the large white tail, flipped up high, can be the easiest way to spot the deer.

habitat

A variety of habitats, including woods, farmlands, brushy areas, dense thickets, and edges.

reproduction

Courtship activities among deer begin in mid-October. Bucks (males) will chase does (females) over a period of five or six days prior to mating. Eventually the two will separate and the buck will go on to breed with more does before the breeding, or rutting, period ends. The female has one or two fawns in the summer.



© Ohio Division of Wildlife

did you know?

Young male deer leave their mother and become solitary after one year, but young females often stay with the mother for two years.



Odocoileus virginianus
70

Glossary

Altricial - young which are helpless when born, unable to care for themselves at birth

Carnivore - that which feeds primarily on meat

Cervid - animal distinguished by the males having antlers

Coniferous - relating to trees or shrubs bearing cones and evergreen leaves

Courtship - specialized behavior in animals that leads to or initiates mating

Crepuscular - most active at dawn and dusk

Deciduous - plants, trees, and shrubs that shed their foliage at the end of the growing season

Delayed fertilization - in most bats, mating occurs during fall, but the egg is not fertilized until after hibernation in April. This strategy allows female bats to use stored energy reserves to survive hibernation instead of producing a fetus.

Delayed implantation - in certain animals, the embryo does not implant immediately following fertilization, but remains in a state of suspended growth or a diapause. A diapause allows for birth to occur under the most favorable of conditions.

Diurnal - most active at day

Echolocation - A sensory system in certain animals, such as bats, in which usually high-pitched sounds are emitted and their echoes interpreted to determine the direction and distance of objects. This system is primarily for finding prey and to avoid obstacles in low-light conditions.

Ecosystem - a system formed by the interaction of a community of organisms with their physical environment

Endangered - species is in imminent danger of extinction throughout all or a significant portion of its range

Endothermic - of or relating to an organism that generates heat to maintain its body temperature, typically above the temperature of its surroundings; warm-blooded

Extinct - no members of a particular species surviving anywhere in the world

Extirpated - no members of a particular species surviving in certain portions of its original range, but surviving elsewhere

Gestation period - the period of carrying young in the uterus; the duration of pregnancy

Habitat - an area or environment where a plant or animal normally lives or can be found; the kind of environment in which an organism is able to find adequate food, water, shelter and space for survival

Herbaceous - green and leaflike in appearance or texture; characteristic of a non-woody herb or plant part

Herbivore - that which feeds primarily on plants

Hibernation - period of time when an animal becomes inactive or dormant, usually during winter. Allows an animal to survive harsh conditions using less energy than when active.

Incisor - a tooth adapted for cutting or gnawing, located at the front of the mouth

Insectivore - that which feeds primarily on insects

Litter - the offspring produced at one birth

Mammary gland - milk-producing glands in female mammals that begin secreting milk when young are born

Marsupial - a mammal of which the females have a pouch where the young are fed and carried

Monogamous - having a single mate for one reproduction event, season or possibly lifespan

Morphology - the branch of biology that deals with the form and structure of organisms without consideration of function; study of the form and structure of an organism

Nocturnal - most active at night

Omnivore - that which feeds on both vegetable and animal substances

Opposable - a digit that rotates at the joint so that it can be placed opposite any of the other digits

Ovulation - discharge of eggs from the ovary

Polygamous - one male which mates with several females

Precocial - young born with hair or fur, eyes open, and the ability to move about immediately after birth

Prehensile - adapted for seizing, grasping, or holding, especially by wrapping around an object: an opossum's prehensile tail

Primitive - relating to an early or original stage; primary or basic

Regurgitate - to cast up partially digested food

Species of concern - species in need of concentrated conservation efforts; receives no legal protection

Taxa - a scientific grouping of living things

Taxonomic order - an order for a list of taxa that depicts evolutionary relationships

Threatened - species that are likely to become endangered in the foreseeable future

Vertebrate - having a backbone or spinal column



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OHIO DEPARTMENT OF NATURAL RESOURCES
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PUBLICATION FUNDING

Funding for this publication was provided by donations to the state income tax checkoff program, sales of the cardinal license plate and Ohio Wildlife Legacy Stamp.

For more information about Ohio native wildlife, please contact the Division of Wildlife: **1-800-WILDLIFE** (1-800-750-0750 Ohio Relay TTY only)



PUBLICATION 5344 (R1012)

