

Mammals of the Morgan Arboretum

Insectivores

- **Common shrew** (*Sorex cinereus*)
- **Smoky shrew** (*Sorex fumeus*)
- **Short-tailed shrew** (*Blarina brevicauda*)
- **Star-nosed mole** (*Condylura cristata*)

Shrews are very small animals, rarely exceeding 5 inches in length. They have long pointed snouts and short legs, and their eyes are reduced in size. Shrews remain active in the winter, although mostly beneath the insulating snow. The most you are likely to see of them in this season are the small 5-toed tracks on the snow surface between burrow entrances. The star-nosed mole is unmistakable due to the star on the tip of its snout, which consists of 22 short, pink appendages which look a bit like tentacles. This mole builds its burrow system in lowland wet habitats and hunts for food in the water.

Bats

- **Eastern long-eared bat** (*Myotis keenii*)
- **Little brown bat** (*Myotis lucifugus*)
- **Silver-haired bat** (*Lasionycteris noctivagans*)
- **Big brown bat** (*Eptesicus fuscus*)

These bats are insectivorous, hunting their prey at dusk and during the night while in flight, and resting within their roosts in the day. All of these species rely on echolocation to find their food. They do this by creating many high-pitched chirps which bounce back from objects in front of them. The signal that returns to the bat's funnel-like ears is assessed based on angle, intensity, direction, and time between chirps to identify whether it is predator or prey, or simply a tree limb in their path. Look for their silhouettes fluttering by overhead at dusk as they snatch up any mosquitoes flying by. During the winter, they hibernate in roosts.

Rabbits

- **Eastern cottontail** (*Sylvilagus floridanus*)

The brownish grey cottontail is most common in younger forest stands and adjacent meadows. Like most rabbits, it is active in the hours between dusk and dawn, feeding on fresh greens in the summer, and twigs and bark in the winter.

Rodents

- **Woodchuck** (*Marmota monax*)
- **Eastern chipmunk** (*Tamias striatus*)
- **Eastern grey squirrel** (*Sciurus carolinensis*)
- **Red squirrel** (*Tamiasciurus hudsonicus*)
- **Northern flying squirrel** (*Glaucomys sabrinus*)

Woodchucks are most often seen in open areas and along forest edges. They excavate complex underground tunnel systems and, in winter, create deeper burrows for their deep hibernation. Eastern chipmunks also live in underground burrow systems. In the summer and autumn, they collect seeds and nuts from the forest floor to sustain them through the winter, although during their sleep (known as Torpor) they rarely eat.



Eastern chipmunk stocking up (Photo: Brian Lasenby –Flickr)

The Grey squirrel, Red squirrel and Northern Flying squirrel do not hibernate and are active year-round. The sometimes seen black-coloured squirrel is a colour-morph of the Grey squirrel (same species). The territorial Red squirrel is more likely to be heard before it is seen, as it warns would-be territory competitors with a series of rattle and bark calls. The Northern Flying squirrel is a nocturnal animal, and is found mainly in coniferous forests. It glides from tree to tree by extending a fold of skin that runs from the wrist to the ankle.

Rodents *cont.*

- **Deer mouse** (*Peromyscus maniculatus*)
- **Southern red-backed vole** (*Clethrionomys gapperi*)
- **Meadow vole** (*Microtus pennsylvanicus*)

Mice and voles are primarily nocturnal, and are active year-round. The Deer mouse is a true generalist: it can be found in a variety of habitats, from deciduous and coniferous forests, to meadows and grasslands, to human habitations. These small creatures can be hard to spot, but look for their tiny four-toed tracks in the snow. Like all true mice, the long tail also leaves a distinctive print in the snow, so have a look for the distinct four feet as well as a long straight line between them.

- **Meadow jumping mouse** (*Zapus hudsonius*)
- **Woodland jumping mouse** (*Napaeozapus insignis*)

Jumping mice have large hind limbs and long tails which make them expert jumpers. They are larger than regular mice, reaching up to 10 inches in length. Jumping mice are most active at night and hibernate during the winter months.

- **Porcupine** (*Erethizon dorsatum*)

Contrary to popular belief, porcupines cannot throw their quills. Quills usually become embedded in the flesh of attackers (or curious dogs) when they get too close. Porcupines do not hibernate, but remain close to their dens in the winter. They feed primarily on the branches, bark and buds of tree species such as poplars and birches.



Young porcupine (Photo: Annette Fallin –Flickr)

Carnivores

- **Coyote** (*Canis latrans*)
- **Red fox** (*Vulpes vulpes*)

Coyotes live in small packs dominated by a single breeding pair. They are opportunistic feeders, eating a wide range of food items. Their diet consists mostly of rabbits, squirrels and other small rodents, as well as the occasional deer, birds, frogs, fish, insects and fruits. Red foxes are solitary animals, and like coyotes, will eat pretty much anything they can find, although they prefer animal matter. The Red fox is seldom found in dense forests, preferring forest edges or more open meadows and clearings.



Coyote print (Photo: Chris Cloutier)

- **Raccoon** (*Procyon lotor*)

The omnivorous and highly adaptable Raccoon is a familiar inhabitant of suburban areas, where its tendency to loot trash (thanks to its great manual dexterity) has given it a bad reputation. Nonetheless, Raccoons are intelligent animals with strong learning and problem-solving abilities. These generally solitary animals sometimes den in groups to conserve heat during the winter months, when they enter a state of light hibernation. They can often be seen lounging high up in the trees during the day. They particularly like the old sugar maple stands which offer them a limitless supply of tall trees and an adequate number of tree holes to roost in.

Carnivores *cont.*

- **Least weasel** (*Mustela nivalis*)
- **Ermine** (*Mustela erminea*)
- **Mink** (*Mustela vison*)
- **Fisher** (*Martes pennanti*)



A fisher captured on film by an infrared trail camera (Photo: Morgan Arboretum -Feb, 2012)

Weasels are among the smallest carnivores, eating primarily small rodents but also occasionally reptiles, amphibians, birds and insects. While the Least weasel and Ermine typically hunt small burrowing mammals on land, often taking over their prey's burrows, the Mink is more specialized for a life near the water. It is an excellent swimmer due to its partially webbed feet.

Discovered in the Arboretum early in 2011 from diagnostic tracks in the snow, the Fisher is our third largest carnivore, ranking behind the Coyote and Red fox. The fisher is a denizen of mature hardwood forests, where it subsists on anything from insects all the way up to Ruffed Grouse and Porcupines - that's right, Porcupines! The Fisher is one of the few animals skilled enough to regularly prey on these spiny herbivores, and consequently has developed a reputation for being quite ferocious. Although Fishers are excellent hunters, they are far from ferocious, and avoid contact with humans at all times. The elusive Fisher is incredibly hard to locate and observe.

Carnivores *cont.*

- **Striped skunk** (*Mephitis mephitis*)

The Striped skunk hardly needs an introduction, as anyone who has smelled its spray is not likely to forget it. Skunks can spray relatively accurate streams of fluid from distances as great as 5 meters, so be sure to keep a safe distance if you encounter one. The highly omnivorous skunk will eat anything it can find, but insects are especially important. This nocturnal animal does not hibernate, although it does spend much of the winter underground in an insulated burrow.

Hoofed Mammal

- **White-tailed deer** (*Odocoileus virginianus*)

The White-tailed deer is a mostly solitary animal, with social groups generally limited to a mother and her fawns. This deer is very shy and nervous, and can run with great speed and agility through dense forests. It prefers areas with thickets in which to hide, and can be found within the forest and at its edges. In the winter, it relies on trails of hard-packed snow for foraging and escaping predators. Look for its tracks in the snow along the Arboretum's snowshoe and ski trails.



White-tailed deer (Photo: Tom Kingsbury)