American Marten

Species Type: Mammal

Scientific Name: Martes americana

The American marten or marten, often incorrectly called the pine marten because of their close resemblance to their European relative, is a member of the mustelid family. The name mustelid came from the fact that members of this family have developed anal scent glands which produce a strong repellent smell that are often used to mark territories. Other members of this family that can be found in New York include fisher, ermine, weasel, mink, and the river otter.

Description

Marten are a small, slender bodied mammal with a long bushy tail that measure about one-third of their overall length. They have a pointed snout and large round ears in comparison to their head. Generally, the females are smaller than the males. They also have claws that are semi- retractable, just like a cat. The adult female will measure only 18-22 inches in length and weigh 1.5-1.8 pounds while the adult male will be around 20-25 inches in length and 1.6-2.8 pounds. Their fur is made up of long soft hairs. Fur coloring varies greatly between individuals from a pale buff-yellowish color to a reddish brown, with paler head and underparts and darker legs and a light-colored throat patch. Marten are often confused with fisher, another member of the weasel family. The fisher can be found throughout New York's marten range and is similar in appearance and tracks, but the fisher is much larger in size than the marten.

Habits

Marten are solitary mammals, avoiding their own kind except during mating season. Most active during the dusk and dawn hours, they are an arboreal species, spend the majority of their lives in and around mature spruce - fir coniferous forest, or a mixed hardwood, especially beech tree - coniferous forest. This type of environment provides ideal sites for them to den and also great habitat for their primary prey species the red squirrel. Here in New York, the vast majority of marten will be found in the High Peaks region of the Central Adirondacks and surrounding areas. Although they are very shy, marten are extremely curious creatures as well. The sighting reports that we receive from the public are usually encounters with marten staring in a window at them or sitting on their seasonal cabin's porch.

Diet

American Marten are omnivores. They do prey heavily on small mammals, especially red squirrels, but they are known to eat just about anything - birds, fish, frogs, insects, and carrion. Their diet also includes seasonal fruit, seed, and nut crops like berries, and especially beech nuts.

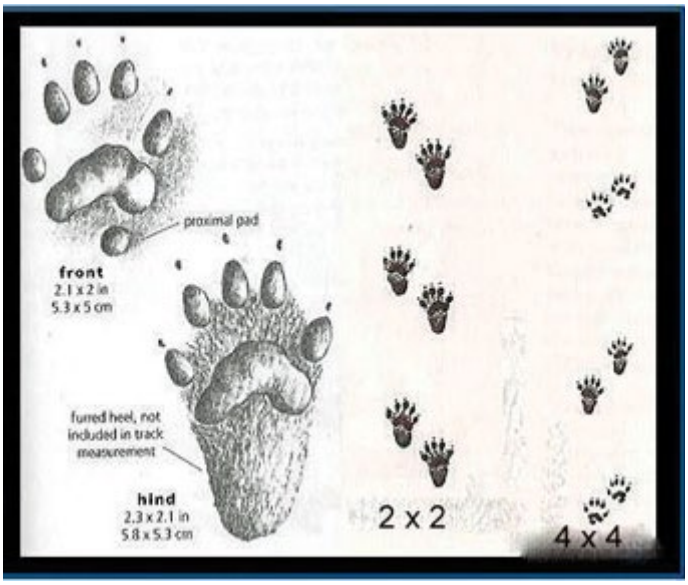
Breeding Biology

Marten have polygynous mating habits, usually breeding with more than one partner. The male establishes his territory and defends it against all other male incursion. Marten breeding season occurs in mid-summer but the young are not born until late March to early April. This is because marten are part of a group of mammals that have the ability to delay the implantation of fertilized eggs. Even though the female's eggs are fertilized almost right away, the eggs will not become attach to the uterus wall and begin to develop until sometime in February. This is known as delayed implantation. Gestation is actually 42 days. The young, or kits as they are correctly called, are born in late March to early April. Both blind and naked at birth, the kits grow rapidly and by about 3 months old they are fully grown. Shortly after

that, their mother will leave them to fend for themselves and she will get ready to breed all over again. Marten normally reach sexual maturity around two years of age when they will undergo their first breeding season.

Tracks and Sign

The marten's foot has very large foot pads in relation to their body weight. This gives them a big advantage of being able to walk on deep snow that is very common in the Central Adirondacks. They grow longer hair between their foot pads in the winter which aids in keeping their feet warm. This hair often distorts the marten's track size. When snow tracking, you may find where a marten will travel "subnevean," or below the surface of the snow, in order to hunt small prey that have taken winter refuge in downed trees. It is often difficult to tell the difference between a marten track and that of their close relative the fisher, especially in poor snow conditions.



Beaver

Species Type: Mammal
Scientific Name: Castor canadensis

Description

The beaver is New York State's official mammal. It is unmistakable due to its large body size (26-65 pounds, 25-35 inches) and broad flattened tail (9-10 inches long, 6 inches wide), not to mention the characteristically altered habitat in which it resides.

A unique feature of the beaver is a second set of eyelids. The secondary eyelids, known as a nictitating membrane, are white and form an inner eyelid. Additionally, their ears and nose can close while underwater! Beavers have lips that close behind the incisors which allow them to gnaw underwater. These large incisors are continuously growing and are kept at a manageable length by the gnawing action beaver use to gather food. The second hind toe has a split nail, which appears to aid in grooming.

The beaver's tail is flat, which helps them swim throughout aquatic habitats. It serves other purposes as well. The tissue beneath the scaly outer layer, which is actually compressed, grouped hairs, contains many blood vessels at its base. It serves as a thermoregulatory tool (helps them to maintain a consistent body temperature). Blood flows from the surface of the tail, thereby minimizing heat loss. It also assists in fat storage.

Habitat

Beavers rarely leave the water for long periods of time. They can be found in wooded streams; the margins of lakes, ponds, and reservoirs; swamps and marshes; and many other sources of year-round water. Ideally, waterways will be of low gradient with an abundance of aspen, willow, or alder, as well as a variety of aquatic vegetation.

Food and Feeding

The beaver's diet consists almost entirely of cellulose in the form of woody plant material. Beavers eat the leaves, bark and twigs of trees such as aspen, willow, and red maple and a variety of herbaceous plants. During summer months, their dietary preferences may shift to aquatic vegetation including water lilies and rhizomes from shoreline ferns.

As winter draws near, beaver may collect and store food items, called a raft or feed pile, underwater near the entrance to their lodge to use throughout the winter. This food store is imperative for survival when thick ice prevents access to fresh food during New York's long winters.

Behavior

Reproduction in beaver leads to the formation of their basic social unit, the family or colony. Beaver mate for life, but if one member of a pair dies, the remaining member will readily accept a new mate. These colonies usually consist of the parents, offspring, and infrequently an 'extra' adult will be found within a colony.. A typical number of beaver per colony is between four and six, but up to a dozen is possible.

Home ranges or colonial territories are established and passively defended by means of scent-mounding. This is where an adult beaver piles up muddy debris and marks the top with castoreum, which is washed out of the castor glands with urine.

Other forms of communication include vocalizations, postures, and tail-slapping. Tail-slapping is thought to be a means for one beaver in a colony to warn other beaver of a potential threat. Another function may be to frighten would-be predators away.

Ecology

Like most rodents, beaver construct an elaborate den or lodge with multiple entrances. Beaver differ from other rodents not only in size, but the fact that beaver alter their surroundings to suit their needs. Possessing the unique ability to fell trees, they use this talent to not only get food it is also a source of construction material. They are cued to begin construction at the sound and motion of running water. Beaver impound an area not only for a place to live and rear their young, but it also adds protection from certain predators.

Depending upon the type of habitat they colonize, they may create a home in a stream bank, or a lodge out in open water. These have two or more underwater entrances and the 'living quarters' of their lodge will be above the level of the surrounding water. In the wintertime, it will maintain a temperature significantly higher than that of the surrounding air.

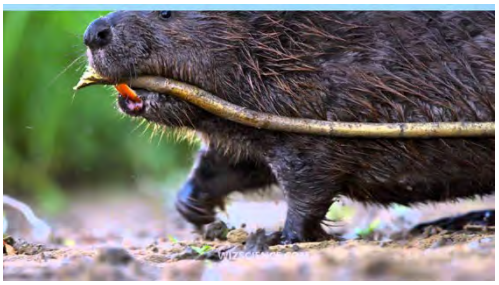
Beaver impound a variety of wetland types and streams with different forest types and gradients. This colonization converts the existing habitat to open water and provides a valuable resource for a variety of furbearer and waterfowl species. However, it can eliminate the existing natural diversity of certain groups of organisms, such as reptiles and some fish species, that may require cooler water than is provided by a beaver impoundment. Flooding of surrounding landscapes can prevent natural succession. It may destroy actual forest stands of trees not adapted for prolonged submersion of their roots.

Reproduction

Beaver reproduce once a year and form lifelong breeding pairs. Breeding occurs in January or February and young are born in May or June after an average gestation time of 107 days. Litter size may range from 2 to 7 kits. The number of offspring could be based on the quantity and quality of available food and habitat in any given year.

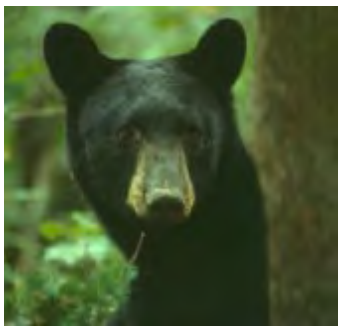
Externally, beaver can have multiple species of mite that dwell in their dense fur. There can be as many as 10 species of mite living on a single beaver. Each species is specialized for life in a distinct part of the animal's body. For instance, the mites living around the head are not the same species of mite that one would find in the hindquarters.

Quick Facts About Beaver



- A beaver can chew down hundreds of trees each year and a family of beavers can eat up to a ton of bark in a winter.
- With waterproof fur, webbed hind feet, and the ability to hold its breath for 15 minutes, the beaver is well adapted to life in the water.
- Beaver have prominent orange teeth, dark brown fur, and a flat, paddle-shaped tail

Black Bear

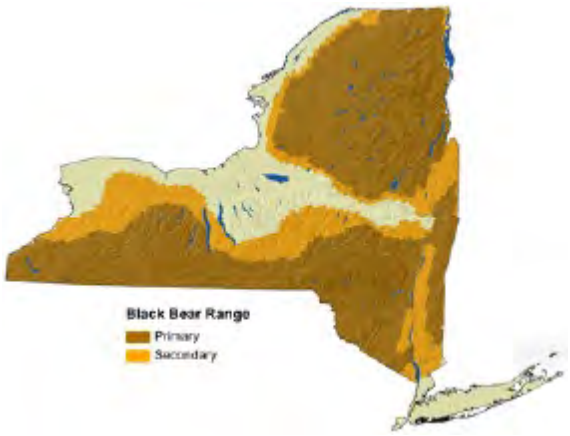


Species Type: Mammal
Scientific Name: Ursus americanus

Though rarely seen by most New Yorkers, black bears (*Ursus americanus*) are valued by hunters, photographers, and wildlife watchers. Many people enjoy just knowing that bears are present in New York. For many, black bears symbolize wilderness and wildness, but increasingly, bears can be found in semi-rural environments, agricultural areas, and occasionally in urban centers.

New York Black Bear Population Facts:

- Currently estimated at a minimum of 6,000-8,000 bears in areas open to hunting
- 50-60% inhabit the Adirondack region
- 30-35% inhabit the Catskill region
- 10-15% inhabit the central-western region.
- Bears are now well established in many other areas, including the Tug Hill, Hudson Valley, and across the Southern Tier.
- Transient bears are routinely encountered throughout the Lake Ontario Plains, Mohawk Valley, and St. Lawrence Valley.
- With the exception of Tug Hill, these other areas include a greater proportion of agriculture or have higher human densities, making them less suitable for bears due to the higher likelihood of human-bear conflicts.



Black bears are an important and natural component of New York's ecosystem. Whether you live or recreate in the bear country, please help maintain and protect the bear. At the same time, protect yourself and your property by not feeding bears and by reducing bear attractants.

If a bear den is located, please call the nearest wildlife office. Also, please do not visit the site or take other people to see the bear den. Female bears give birth in the den. Disturbances by humans may cause the bear to abandon the den and impact the survival of the cubs.

Black Bear Facts

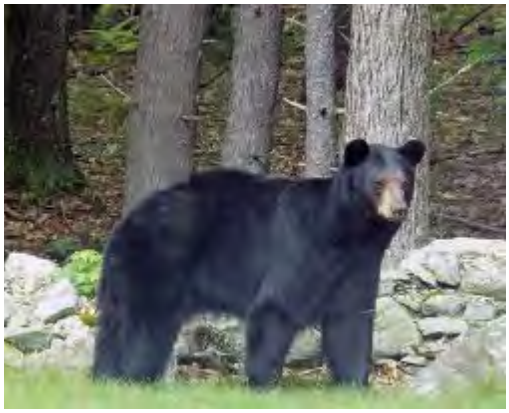
- **Black bears are large -** They have erect, rounded ears; a long, narrow, brown muzzle; and a short tail. An average adult male weighs about 300 pounds while females average about 170 pounds.
- **Black bears can remain dormant** for up to 5 months in winter.
- **Adult male and female bears** only tolerate each other during breeding season.
- **While breeding occurs in June and July**, the fertilized eggs of the female do not begin to develop until autumn. This delayed implantation occurs so that the cubs are born when their chances of survival are greatest, while in the den.
- **Bears eat nearly anything -** They are omnivorous; eating grasses, berries, fruit, nuts, seeds, insects, grubs, and carrion, as well as human sources of food like corn, honey, bird seed, trash, and pet food when available.
- **Bears are curious** - Black bears are omnivores, dieting on various and even unusual plant and animal materials. Bears are also opportunists, choosing the foods that are easiest to obtain in quantity. A

successful bear hunter recognizes that food availability changes from one year to the next, and also during the bear hunting season.

- **Bears are intelligent** - Bears learn from experience. If an activity results in food, they will repeat that activity. If an encounter with a human is negative, they learn to avoid humans. Also if an encounter with a human doesn't result in a reward (food), they will not have any reason to have contact with humans.
- **Black bears are aged by cutting a cross section of a small premolar tooth** and counting the cementum annuli (annual rings), similar to the technique used by foresters to determine the age of trees. The oldest wild bear ever aged in New York was 41¾ years.
- **Feeding bears creates human-bear conflicts** - When bears learn to obtain food from humans, they can become bold and aggressive. Deliberate and intentional feeding of bears is illegal in New York.

- **Feeding bears is bad for bears** - Bears' natural foraging habits and behavior can be changed. Usually solitary, bears can be concentrated in areas causing stress, injuries from physical conflicts, and the spread of diseases. Often when feeding on garbage or camper's supplies, bears will eat unhealthy materials such as soap, shaving cream, insect repellant, food packaging, etc.

Hunting Bear in New York



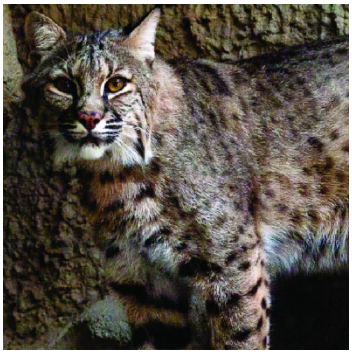
New York has between 6,000 to 7,000 black bears in the wild. In recent years, numbers have increased and become more widely distributed across the state. Hunting is the primary management tool to control the bear population. Bear hunting is permitted in the fall throughout portions of northern, southeastern, and central-western New York.

Watchable Wildlife

Black bears are the second largest mammal in New York State. (The moose is the largest.) Bears are excellent climbers and can run at speeds up to 25 mph or more. Look for claw marks or scars on trees and bark torn or ripped off. They are usually made to mark the tree or because they are climbing the tree in search of food.

- **Tracks**: Black bears have five toes on each foot, with the biggest toe being on the outside (in contrast to the location of a human's big toe). The position of the big toe is what gives the black bear its shuffling gait, with the tracks turning slightly inward. Look for five toes, claw marks, and a large heel pad. The hind tracks are longer and may reach 7 inches long by 5 inches wide. The front tracks are smaller, but often reach 5 inches long by 5 inches wide.
- **Scat**: Bear droppings may be over an inch thick and tubular. A pile of bear scat may be very large. The scat varies with diet and food availability, based on the season.

Bobcat



Species Type: Mammal

Scientific Name: Lynx rufus

Description

Bobcats are about twice the size of a domestic cat and usually smaller than the Canada lynx. Their fur is dense, short, and soft-is generally shorter and more reddish in the summer but longer and more gray in the winter. Spotting occurs in some bobcats and is faded in others. The face has notable long hairs along the cheeks and black tufts at the tops of each ear. Males are, on average, one-third larger than females. Both sexes can be greater than 30 pounds; however, averages for males and females are 21 and 14 pounds, respectively. Body length for males is 34 inches and 30 inches for females. Tail length is usually between 5 and 6 inches for both sexes.

Sometimes sightings of bobcat are confused with Canada lynx. Bobcats can be easily distinguished from lynx by the absence of the huge, seemingly oversized paws and a black-tipped tail that are characteristic of the lynx. Bobcats have paws that are proportional to their body size, and their tail is black spotted. Lynx tracks are roughly twice the size of that of a bobcat. DEC attempted a lynx restoration program in the Adirondacks in the late 1980s and early 1990s, but the animals released there dispersed far and wide and a resident breeding population was never established. Currently, the lynx is considered extirpated in New York because there is no evidence of any remnant population of resident animals.

Life History

Bobcats are solitary animals and may be active at any time, day or night. Males have larger home ranges than females, and they travel greater distances on a daily basis. The average home range of a male in the Adirondacks is 136 square miles. The average female home range is 33 square miles. In the Catskills, the average male home range is 14 square miles, while the female average is 12 square miles. Home ranges are smaller in areas of good habitat than in areas of poor habitat. Scent marking using feces, urine, and scrapes of fluid from their anal glands have all been documented as ways they mark territory, and are commonly found on the underside of leaning trees, logs, shelter rocks, or stumps.

Bobcats will use multiple strategies while hunting. They may approach stealthily, using any form of cover available between them and their prey, attempting to get close enough to pounce and strike. They may also use an ambush technique where they will sit and wait for prey to pass by, to strike undetected. Smaller prey items such as mice and birds are consumed whole. Larger animals taken and stored are eaten in the position they lay, and can be identified as a bobcat cache (food stored for future use) if the upper parts were consumed, while the portion of the cache in contact with the ground may be untouched.

Bobcats begin to breed between mid-January and early February. Some researchers found breeding activities continuing into July. Females can reproduce in their first year, while males breed in their second year and likely mate with more than one female. Courtship activities may include chasing, ambushing, and what appears to be fighting. The average gestation period for a litter is 62 days, but varies from 50 to 70 days. Most litters are born in April and May, ranging from March through July. Young are born in a dry, well hidden den, usually found within natural rocky areas and caves where available. The female will likely have numerous auxiliary dens which they will use to aid in raising their young. Females raise one litter of 1-5 kittens alone. Kittens are able to accompany their mother away from the den by their third month, and disperse prior to the birth of the following year's litter.

Bobcat kittens are killed by foxes, owls, and adult male bobcats. Adults may be injured or killed by their prey animals. The most common cause of death for kittens and juveniles is low food supply. It is not uncommon for an adult to die of starvation, especially during severe winters. Some researchers have suggested that diseases carried by raccoons and feral cats may be an important mortality factor for bobcats. Twelve infectious diseases have been documented in wild bobcats. These diseases include rabies, feline distemper, and feline leukemia. They also carry a variety of parasites including tapeworms, roundworms, and others that are common in their prey species.

Distribution and Habitat

Based on surveys from the late 1970s, bobcats occupied 13,500 square miles (a little more than one-quarter) of New York. There were three population centers: (1) Adirondack, (2) Catskill, and (3) Taconic regions. The Adirondack Study area had about 5 bobcats for every 100 square miles of area, while the Catskill area had about 16 bobcats for every 100 square miles of area. Bobcats also occur occasionally in many areas of western New York (and probably breed there).

The most critical features of bobcat habitat are places for refuge and protection, such as ledges. Bobcats often use rocky ledges and rock piles for shelter, breeding, and raising young. Brush piles, hollow trees, and logs are other good structures for resting and dens. Evergreen bogs and swamps-and other secluded places-also fill the bobcat's requirement for refuge and protection.

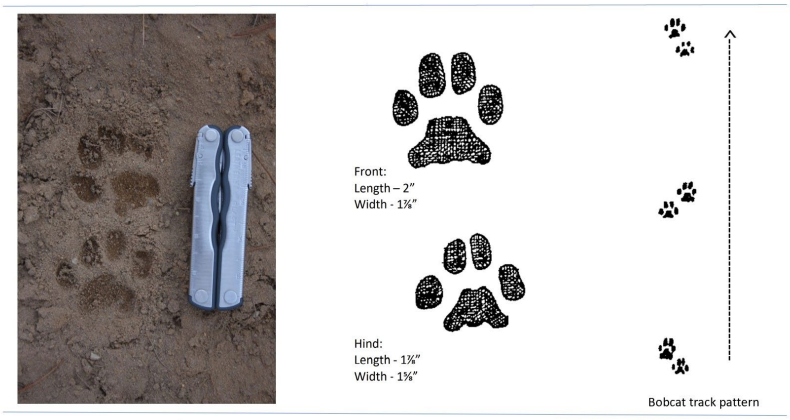
Bobcats usually are not present where there are continuous human population centers; however, they can use patches of habitat if the patches are not completely isolated by urban development.

Management

A 1983 publication reports that 47 states in the U.S. had bobcats within their boundaries at that time. Thirteen states had a policy of total protection (no harvest). Thirty states had hunting seasons, while 32 had trapping seasons. Three states, Wyoming, Texas, and North Dakota, allowed year-round harvest. Many northern New York counties paid bounties on bobcats before 1971. The New York State Legislature passed a law ending the payment of bounties in 1971.

In 1973, a group of 75 countries (including the U.S.) developed the Convention on International Trade in Endangered Species (CITES) treaty. CITES made it illegal to export pelts of endangered spotted cats such as cheetah, leopard, and ocelot. The treaty also included a list of species that had the potential to be affected negatively by the export ban. Bobcats are on this list because they are a spotted cat, and possibly an alternative for the banned pelts.

Although the federal government, under CITES, controls export of bobcat pelts, the states are responsible for management. Bobcats were unprotected in New York until the Legislature gave DEC the authority to set open seasons in 1976. DEC closed a large portion of the state to bobcat harvest after 1976, and started a pelt tagging system to track bobcats harvested by hunters or trappers in some areas with open seasons beginning in 1977. Hunting has been the dominant harvest method since the 1988-89 season. This is likely due to declining pelt prices and decrease in licensed trappers. Although the status of bobcats in New York is stable, DEC will continue monitoring bobcat populations to determine whether any important changes occur.



Canada Lynx

Species Type: Mammal

Scientific Name: Lynx canadensis

Species Status

From historical records we know that Canada lynx were present in New York State in the past; however, we do not know for sure if there were ever self-sustaining resident populations in New York. It is likely that there were always lynx traveling through the state from other areas and that the New York population was sustained by immigration from these other areas.

Occasionally, we still get reports of lynx in the state. Some of the reports turn out to be the similar-looking bobcat; however, over the last few years we have had a few convincing reports of lynx in the state, and it is clear from these that New York still has an occasional lynx passing through. We do not know of any recent instances of lynx breeding in New York.

The lynx is considered extirpated in New York because there is no evidence of any remnant population of resident animals.

Lynx Restoration Study

Between 1989 and 1992, SUNY Environmental Science and Forestry (ESF) conducted an experimental program of lynx releases in northern New York. Over 80 lynx were caught in northwestern Canada and released in the Adirondacks. All of the lynx were fitted with radios at the time of release, and the radios provided information of survival and dispersal of these animals.

Some of the released lynx dispersed farther than anyone expected. Lynx from the ESF release showed up in Pennsylvania, New Jersey, Massachusetts, New Hampshire, Quebec, Ontario, New Brunswick, and other parts of New York. One lynx was found a straight line distance of 485 miles from the release site, 8 months later and 2 pounds heavier than at the time of release.

Home ranges of the released lynx were large, and there is still no firm evidence of lynx reproduction. Researchers received reports of lynx with litters but were unable to confirm them.

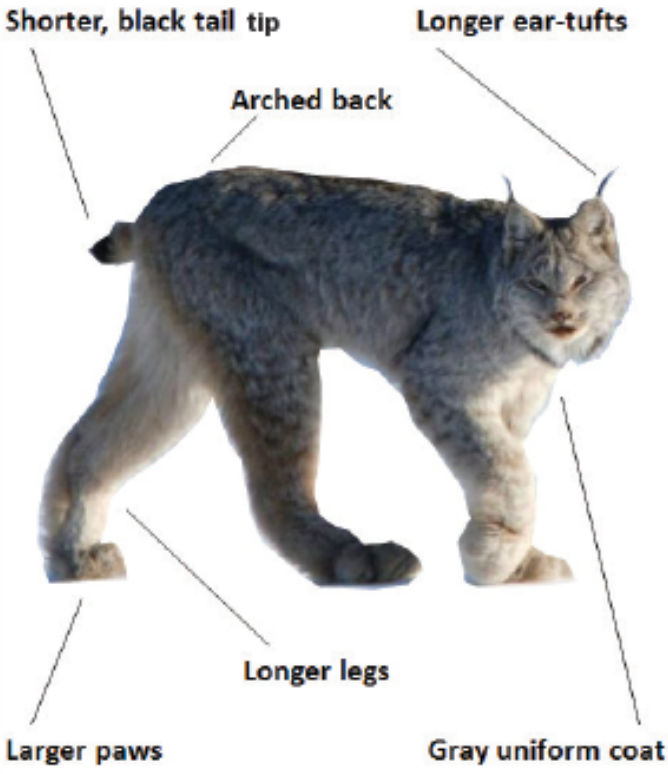
Current Program

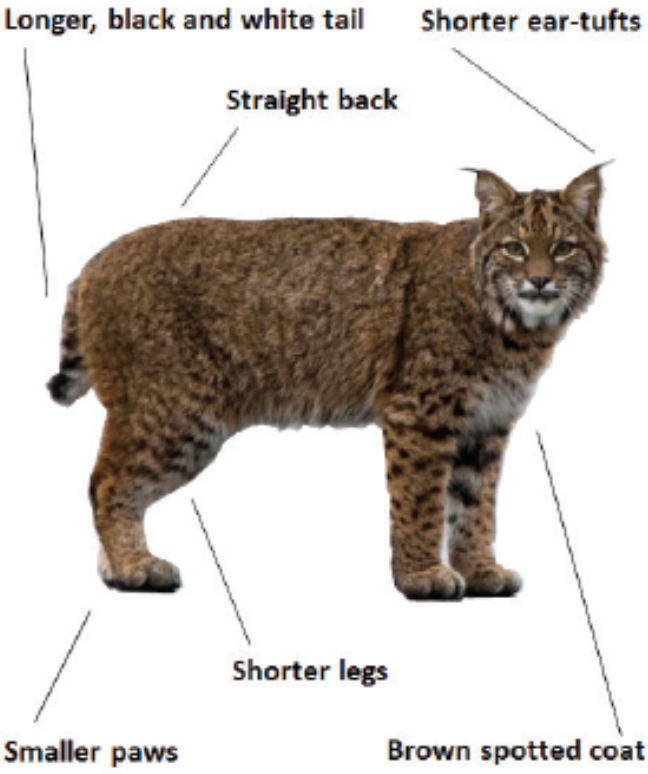
Lynx are fully protected in New York. The species is classified by New York state law as a small game animal, but regulations do not permit lynx harvest.

The Wildlife Conservation Society of the Bronx Zoo conducted surveys in the High Peaks area of New York in 1998-99 attempting to document the presence of lynx. No evidence of lynx was found.

People who observe lynx or evidence of lynx in New York can help by observing carefully and contacting a DEC office or to report their observation. Reports are most helpful if they include details such as specific time, location, and features of the animal or track. Size, coloration, and behavior of the animal are important. For tracks, note the size, shape, length and width between individual footprints, and snow or soil conditions.

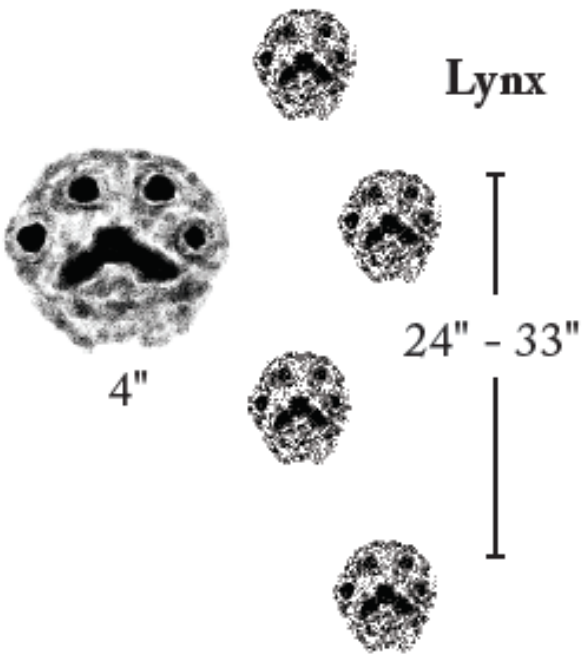
Lynx or Bobcat?

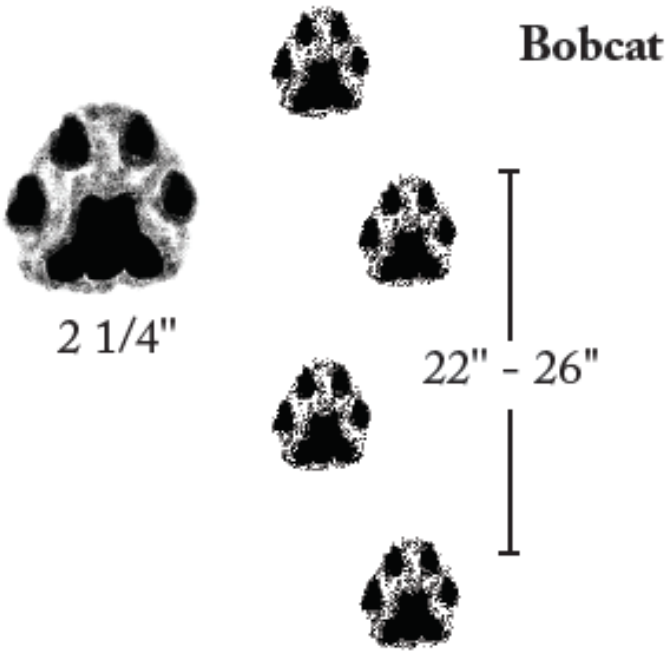




Lynx (*Lynx canadensis*)
Photo by Keith Williams

Bobcat (*Lynx rufus*)
Photo by Kevin Pickell





Eastern Coyote

Species Type: Mammal
Scientific Name: Canis latrans

New York Status: Not Listed
Federal Status: Not Listed

Description

Eastern coyotes look similar to German shepherd dogs, yet are half the weight. They have long, thick fur and full bushy tails, usually carried pointing down. Ears are large, erect, and pointed.

Length: 4 to 5 feet (nose to tail)

Weight: 35 to 45 pounds (males usually larger than females)

Color: Variable, from blonde or reddish blonde to dark tan washed with black. Legs, ears and cheeks usually reddish. Many have a white chin and a dark spot just below the base of the tail when observed from behind.

Eastern coyotes have a mix of coyote, wolf, and dog ancestry and are larger in size (about 40 pounds, on average) than coyotes west of the Mississippi. Wolves are larger than both. Eastern coyotes can be distinguished from wolves by their smaller size; large, pointed ears; and pointed snout.

Life History

Coyotes are opportunistic omnivores, meaning a coyote's diet depends on what is easy to find, scavenge, or catch and kill. Coyote diets are diverse and vary throughout the year based on seasonal availability. Annually, their diet includes white-tailed deer, rabbits, small mammals such as mice and voles, raccoons, groundhogs, birds, insects, and plant materials. Deer killed by vehicles and other causes (carrion) can be an important food source for coyotes. Coyotes do not frequently kill healthy adult deer.

Coyotes are not strictly nocturnal. They may be observed moving about during the day, yet are more active after sunset and at night. Seeing a coyote during the day does not necessarily mean it is sick or unhealthy, but caution should be exercised. Coyotes do not migrate. They are year-long residents and typically inhabit an area known as a home range. They are territorial, and will firmly defend portions of their home range. Adult coyotes live in home ranges throughout the year in New York; however, they may shift their activity patterns during the four seasons.

Coyotes are monogamous and mate for life. In early spring, female coyotes use dens for raising pups and often stay close to these sites. Male coyotes may travel greater distances to hunt more intensively while seeking additional food to support the female and pups. Litters of 4-6 pups are born in ground dens, brush piles, or under downed trees or human structures, such as sheds and other buildings. Coyote pups grow rapidly and are weaned at 5 to 7 weeks of age and abandon den sites around this time. They are fully grown at 9 months and

eventually disperse after being driven from their parents' home ranges. These young coyotes often travel 50 to 100 miles in search of a vacant territory, find a mate, and enter adulthood as a breeding pair.

Distribution and Habitat

There are two hypotheses to explain the presence of Eastern coyotes in New York. The first explanation is that coyotes were here before Europeans settled North America. The clearing of the forest for farms and homes forced coyotes to retreat to unsettled areas of the Northeast. The return of forested habitats during the 20th century coincided with the return of the coyote.

The second and more widely accepted hypothesis is that Eastern coyotes are a relatively new species in New York. This explanation suggests that coyotes originally inhabited central North America and naturally extended their range throughout the continent in response to human changes to the land. Evidence indicates that coyotes reached New York and the Northeast in the early 1930s and 1940s, with coyote range expansion first reaching the state by passing north of the Great Lakes and into northern New York. Coyotes then spread rapidly across the state over the next 40-50 years. Regardless of how they arrived in the state, coyotes have been present in New York since the 1930s, and have been firmly established throughout the state since the 1970s. They are here to stay.

Coyotes, commonly believed to live only in the more rural or wild parts of New York, readily adapt to living close to people. Coyotes live throughout Upstate New York and commonly inhabit many suburban and urban areas. Occasionally, they are sighted in parts of New York City and Long Island. As unlikely as it may seem, human development makes surprisingly good coyote habitat. The abundant food supply for coyotes makes living close to people possible.

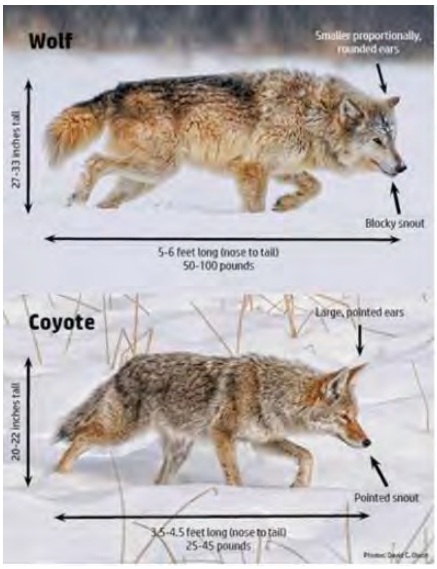
Status

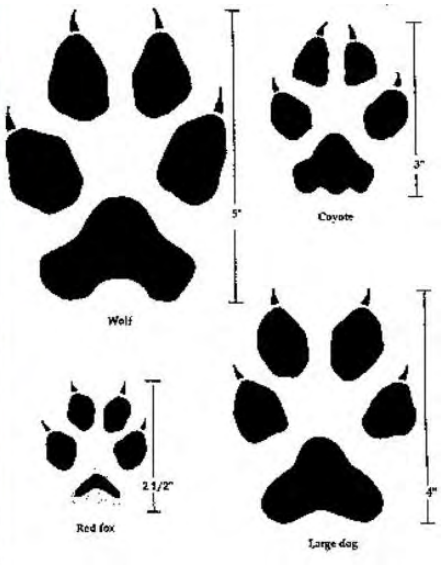
After hearing a family group of coyotes howl, it is easy to get the impression that the woods must be overflowing with coyotes. In reality there were probably five or six animals present (i.e., 2 adults and young of the year). A few coyotes make a tremendous amount of noise when they want to. The Eastern coyote does not form a true 'pack' with multiple adults living together like their relative the wolf. Instead, they are organized as a 'family unit'. Each family unit is made up of the adult pair and their pups from the current year. A family unit will defend a territory of 2 to 15 square miles against other coyotes. It is the territorial behavior of coyotes that limits their numbers in any one area.

Across New York, the most commonly reported issues with coyotes were incidents involving pets. Coyotes seldom approach or act aggressively towards people directly; however, dogs and cats attract coyotes. Coyotes approaching pets pose an immediate risk to the safety of pets and can jeopardize human safety, too. Overall, problems between people and coyotes are rare, yet the potential for conflicts to occur remains. Human behaviors may increase that potential if people feed coyotes (either directly or indirectly), or if they allow coyotes to approach people and pets. To minimize conflicts, it is important that people do their part to maintain the natural fear that coyotes have of humans.

Management

About 30,000 New Yorkers participate in coyote hunting each year and about 3,000 participate in coyote trapping. All of Upstate New York is open for coyote hunting, and a hunting license is required to hunt coyotes. All of Upstate New York is also open for coyote trapping and a trapping license is required.





The Environmental Conservation Law allows 'problem coyotes' to be killed at other times of the year. Section 11-0523 says coyotes that are "injuring private property may be taken by the owner, occupant or lessee... at any time in any manner."

Quick Facts About Coyote

Tracks

Similar to medium-sized dog tracks with four toes, claw marks, and a rear pad. Looking for coyote tracks in the winter is a good way to enjoy the outdoors. Look for coyote tracks moving alone or in pairs.

Scat

They leave a dropping similar to a dog, but look for parts of the animals they eat, such as hair and bones. Also look for bits of fruits or nuts.

When to Watch

Coyotes are most numerous at the end of summer and in the fall, when pups are almost fully grown. Watch an open field in late summer to see a coyote hunting for small mammals. Follow their tracks during the winter-you may catch a glimpse of a coyote in the distance as you track it.

What to Listen for

Chorus of howls and short, high-pitched yelps. Coyotes howl throughout the year, yet are highly vocal from late summer through early fall, and again during breeding season in winter. Listen for coyotes at dusk or after dark.

Fisher

Species Type: Mammal
Scientific Name: Martes pennant
New York Status: Not listed
Federal Status: Not listed

Description

The fisher is a large, dark, long-haired member of the weasel family. Their stature is relatively low to the ground, with short legs, small ears and a well-furred tail. The color of their fur varies from dark brown to nearly black. Females and juveniles usually have a more uniform color, and males will have a blonde or grizzled appearance due to multi colored guard hairs around the neck, upper back and shoulders.

There is considerable evidence of dimorphism between the sexes, with males weighing between 7 and 13 pounds, and females between 3 and 7 pounds. Total lengths for males range from 35-47 inches, and females, 30-37 inches.

Fisher have large, wide feet with five toes on each foot and semi-retractable claws. This makes them well adapted for walking on snow, climbing trees and grasping and killing prey. They are capable of rotating their hind feet nearly 180º, which allows for a headfirst descent from trees. As with all members of the weasel family, both sexes have large anal scent glands which may be used to mark territories or attract potential mates.

Distribution and Habitat

Found exclusively in North America, fisher inhabit a band of forested and semi-forested land from coast to coast, and prefer extensive closed canopy forests. In the east, they range from Virginia north to Quebec and the maritime provinces of Canada. They use deciduous, coniferous and mixed forests. Historically, their numbers experienced a severe decline during the late 1800s and early 1900s due to over-exploitation and loss of forested habitat due to unregulated logging and the clearing of land for farms. Reintroduction programs have proven to be effective in restoring populations, along with regulation of trapping opportunities and the initiation of reforestation programs.

In New York State, fisher can be found throughout approximately 26,000 square miles of forested habitat within the northern, eastern and southeastern parts of the state. Recently they have begun to return to the southern tier of central and western New York, as some sightings and road kills have been reported from that region.

Food and Feeding

Fisher are a dietary generalist. They eat a wide variety of small to medium sized mammals and birds, and a variety of hard and soft mast such as beechnuts, acorns, apples and berries. However, they have been considered a specialist in that they are the only known North American mammal that succeeds in killing and consuming porcupines. They will consume the entire animal, leaving nothing but a quilled hide and a few of the larger bones.

Other prey items include rabbits, squirrels, mice, shrews, and carrion from large mammals such as whitetailed deer. Carnivores such as bobcat, coyote, red and grey fox and some raptors serve as competition for prey items,

and fisher have been documented to travel over a hundred miles over the course of a few weeks in order to meet the demands of their dietary requirements.

Reproduction

Fisher reach sexual maturity in their first year of life, and females may be receptive at that time. Implantation of the fertilized embryo may be delayed until the following season, thus accounting for their first litter being born in their second year. Reproduction peaks in late March, and breeding may occur as late as May. Average litter size is 2-3 young, and kits are born partially furred with closed eyes and ears, essentially helpless at birth. Weaning occurs within 8-10 weeks, and dispersal of young may occur by their fifth month, as interfamilial aggression begins by the onset of autumn.

Behavior

Fisher use a variety of structures for year-round denning purposes such as the natural cavities found in older trees, hollow logs, cavities in rocky outcrops, brush piles and underground burrows. Dens used for birthing of young are usually found in hollow sections of trees, high above the ground.

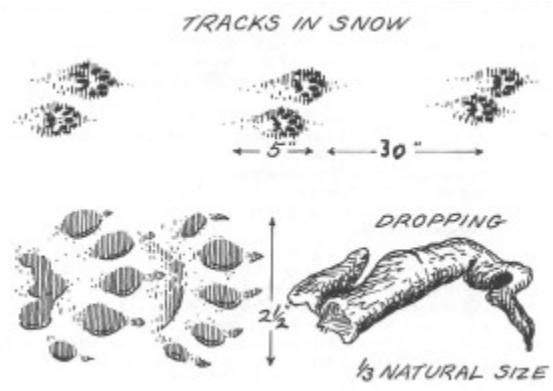
Fisher lead a solitary lifestyle except for brief periods during the breeding season. They have been found to be active at any time during the day or night. Males generally have larger home ranges than females, and their territories seldom overlap that of other males, suggesting territoriality between the sexes.

Predators and Disease

Fisher have no natural enemies, save humans, and natural mortality remains largely undocumented. Trapper harvest and automobile collisions likely account for the majority of fisher deaths across their range. A few species of tapeworm, intestinal roundworm, and flatworm have been identified in fisher, and their effects on health are minimal. Rabies and distemper have been described in fisher in New York State, but are a minor source of mortality in the wild.

Fisher Management Plan

The New York State Fisher Management Plan was completed in December 2015. The plan describes the goals, objectives, and strategies that will guide DEC's actions and decisions related to management of fisher populations in New York over the next ten years (2016-2025). The plan advances two primary goals for managing fisher populations in New York: (1) Maintain or enhance fisher populations in all areas of the state where suitable habitat exists; and (2) Provide for the sustainable use and enjoyment of fishers by the public.



Gray Fox

Species Type: Mammal

Scientific Name: Urocyon cinereoargenteus

Description

The gray fox is easily distinguishable from the red fox in that they have a mane of short, stiff black hairs along the back leading to a black-tipped tail. Coloration of their upper-parts appears grizzled as a result of multi-colored guard hairs. The remainder of their pelage is usually a variation of reds and browns with buff or gray underfur. Their face is distinctly marked with white, black, and rufous coloration. Total length, including the tail ranges from 31-44 inches and weight ranges from 7-13 pounds, with little difference between males and females.

The claws on the front paws have a greater curvature and they have a greater ability to rotate their forearm more than that of the red fox. These are two morphological features that may serve as adaptations for tree climbing. One classic postmortem means of identification lies in the temporal ridges along the top of the skull. When viewed from above they form the shape of a U and do not contact the sagittal crest along the back of the skull.

Distribution and Habitat

Ranging across New York State, gray fox inhabits a mixture of deciduous woodlands, brushy and rocky areas. Old fields bordering extensive forested areas and interspersed with farmlands may serve as ideal foraging grounds.

Food and Feeding

Small mammals make up the majority of the food base of the gray fox. Mice, voles, and cottontail rabbits serve as staples but they have been known to eat birds, amphibians and reptiles, various arthropods, and carrion. They will also forage for a variety of hard and soft mast such as acorns, grapes, apples and in farm country, corn.

Reproduction

Breeding occurs between mid-January and May. The gestation period may range between 51-63 days. Pups are usually born in a den in March or April, nearly hairless, blind and helpless. Single litters contain 2-7 pups. Weaning occurs between 8-10 weeks of age, at which time they venture out of the den, and begin hunting with the parents by 3 months. Families disperse in the autumn when young are nearly full-grown. Males reach sexual maturity sooner than females, but both are capable of reproducing in their first year.

Behavior

Gray fox dens may be in use any time of year, but the majority of use comes during the whelping season, or the time of year when birthing occurs. Dens are usually located in wooded or brushy habitats, and are generally less obvious than that of a red fox. They do not excavate their own den and infrequently use abandoned dens of woodchucks or other small mammals. They prefer to use hollow logs or trees, rocky outcrops, or thick brush. They will also use abandoned houses or beneath manmade structures such as sheds or abandoned woodpiles as both temporary dens and a place to rear their young.

Tree climbing is one of the most notable adaptations in the gray fox. Gray fox have been reported to den several yards above the ground. This is not only advantageous in escaping predators such as coyotes, it may also improve their ability to find food. By gripping the bole of the tree with their front paws, and as they push off with their hind feet, they will let

go with their front and re-grip the bole of the tree higher up. Once they're up in the crown they tend to jump from branch to branch. Descent is backwards or if the tree is leaning, they will run down the trunk of the tree.

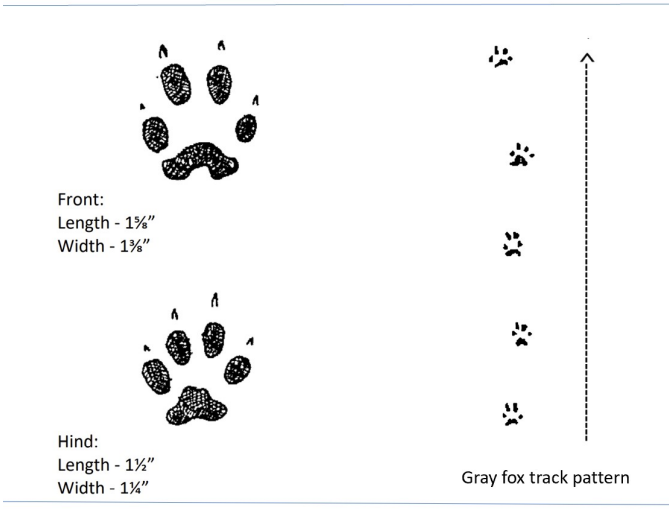
Due to their more aggressive behavior, Gray fox prefer to hunt thicker cover than the more timid red fox. The gray fox's preference for thicker cover, aggressive behavior, and the ability to climb trees minimizes the effect that eastern coyotes have on their population. The red foxes preference for open terrain where they are more visible and farther away from cover allow coyotes to suppress red fox populations where coyotes are abundant.

Predators, Parasites, and Disease

Across its range the gray fox serves as a host to over thirty different external parasites that includes lice, ticks, mites, chiggers and fleas. Internal parasites include roundworms, flatworms, tapeworms and acanthocephalans.

Unlike the red fox, the gray fox exhibits a natural resistance to sarcoptic mange, a mite that causes irritation resulting in a thickening of the skin, loss of hair, and eventual death due to either malnourishment or hypothermia. Rabies has been reported in New York specimens, but canine distemper appears to be the leading mortality factor, in terms of diseases, affecting wild gray fox populations.

In terms of predators, humans are likely the primary cause of mortality in this species through trapping and automobile collisions. Where encounters occur, the Eastern coyote will undoubtedly predate gray fox, as may bobcat and some of the larger raptors such as great horned owls.



Indiana Bat

Species Type: Mammal

Scientific Name: Indiana Myotis

New York Status: **Endangered**
Federal Status: **Endangered**

Description

The Indiana bat is one of nine bat species found in New York. All are small as mammals go, this species being roughly 2 inches (51 mm) in length and weighing approximately .2 -.3 ounce (6-9 gm). Identifying most of New York's bats is not easy and the Indiana bat is one of the most difficult. It can be distinguished from its closest look alike, the little brown bat (Myotis lucifugus), by several rather obscure features. Generally, the Indiana bat is uniformly dark grey to grayish-brown in color and often has a pinkish colored nose. The little brown bat has brown fur; its ears and nose are often slightly darker, giving the appearance of a faintly contrasting dark mask, a feature that is noticeably lacking in the Indiana bat. An Indiana bat's feet are smaller, about 1/3 in. in length, with few if any hairs. These hairs do not extend beyond the tips of the toes. The calcar (a cartilaginous projection from the foot which helps support the membrane between the foot and the tail) is generally keeled in the Indiana bat but not in the little brown. Indiana bats are generally found in tightly packed clusters. In the center of the cluster, only the faces and wrists are visible. Little browns generally occur in loose clusters.

Life History

With the coming of spring, Indiana bats disperse from their winter homes, known as hibernacula, some going hundreds of miles. They feed solely on flying insects and presumably males spend the summer preparing for the breeding season and winter that follows. Females congregate in nursery colonies, only a handful of which have ever been discovered. These were located along the banks of streams or lakes in forested habitat, under the loose bark of dead trees, and contained from 50-100 females. A single young is born to each female, probably late in June, and is capable of flight within a month. With luck, it may approach the ripe old age of 31, a record set by the little brown bat.

In August or early September, Indiana bats swarm at the entrance of selected caves or mines. This is when mating takes place. Sperm is stored in the female's body; eggs are fertilized in the spring. Like other hibernating species, the Indiana bat accumulates layers of fat which sustain it over the winter period of dormancy.

Indiana bats spend the winter months in secluded caves or mines which average 37 to 43 degrees F. Criteria for selecting hibernacula are not clearly understood; many apparently suitable sites are not occupied. Where this species is found, however, it can be extremely abundant, congregating in densities of more than 300/square foot. Year after year, bats often return to exactly the same spots within individual caves or mines. Hibernation can begin as early as September and extend nearly to June.

Food

The Indiana bat is a nocturnal insectivore. It emerges shortly after sunset and begins feeding on a variety of insects that are captured and consumed while flying. This species feeds almost exclusively on flying insects. Four orders of insects contribute most to the diet: Coleoptera, including beetles; Diptera, including flies; Lepidoptera, including moths; and Trichoptera, including caddisflies. Which of these is most important varies across the range. In New York bats hunt more in wetlands or above streams and ponds. Consistent use of moths, flies, beetles and caddisflies throughout the year at

various colonies suggests that Indiana bats are selective predators to a certain degree, but incorporation of ants, spiders and mites into the diet also indicates that these bats can be opportunistic. At individual colonies, dietary differences exist between years, within years by week, between pregnancy and lactation, and within nights. These differences reflect availability of preferred types of insects within the foraging areas that the bats are using. High energy demands, especially for reproductive females, dictate that the bats need to eat large volumes of insects. Indiana bats can eat up to half their body weight in insects each night.

Distribution and Habitat

The Indiana bat is found within the central portion of the eastern United States, from Vermont to Wisconsin, Missouri and Arkansas and south and east to northwestern Florida. In New York, knowledge of its distribution is limited to known wintering locations-caves and mines in which they hibernate. There are eight hibernacula currently known in Albany, Essex, Warren, Jefferson, Onondaga and Ulster Counties. It is certain that the summer range of this species extends well beyond these counties since the animals disperse to breeding areas and other habitats to feed and raise their young.

Status

The Indiana bat was one of the mammals included on the original federal list of Endangered Species. In terms of sheer numbers, the species is rather abundant. The 2019 winter census estimate of the population was 537,297 bats occurring within 223 hibernacula in 16 states. The current population has declined by half compared to when the species was listed as endangered. However, 85 percent of these bats winter in only seven caves or mines, with nearly one-half of the world's population being found in only two caves. Even though other populations have been discovered in recent years, the additions have not offset the losses recorded over the full extent of the species' range.

In New York, approximately 13,000 Indiana bats are known to exist in 8 of the 120 sites searched to date. Surveys conducted since the early 1980s suggest they are doing fine in this state and may in fact be increasing. Where declines are suspected in some other states, the reasons are not clearly understood. Because bats hibernate in caves and mines, they are subject to flooding or ceiling collapses, both of which can and have killed thousands of individuals in the past.

Threats to the species include human disturbance of hibernating bats, commercialization of caves where the bats hibernate, loss of summer habitat, pesticides and other contaminants, and most recently, the disease white-nose syndrome. The range-wide population has declined by 19% since 2007, when white-nose syndrome first arrived in North America. The most serious problem for hibernating bats is believed to be disturbance by people exploring caves. Bats are sensitive to noise and light and can be aroused from their motionless state by passing cavers. Each time they are awakened, precious energy reserves stored as fat are depleted. Too many disturbances and the animals will not survive until spring.

Management and Research Needs

Since the most vulnerable period in the life-cycle of the Indiana bat is during winter hibernation, management efforts are concentrated on protecting the hibernacula. The problem of human disturbance is curtailed by eliminating unauthorized access at major hibernacula through gating or agreements with the landowners. Long-term monitoring is needed to identify population trends.

Mink

Species Type: Mammal

Scientific Name: Mustela vison

Description

Mink have a long, thin body and neck, short legs, and a 6-8 inch bushy tail. Male mink are generally larger than females and may exceed two feet in length. The fur is dark brown on the back, blending into a slightly lighter shade on the belly. A distinguishing mink characteristic is the small white patch of fur on the chin of all animals. Mink fur is very soft and lustrous. The dense underfur is protected by oily guard hairs that tend to waterproof the coat.

Mink and otters are more closely associated with streams and other aquatic habitat than other weasels. Otters and mink have similar glossy fur and webbed feet; other weasels lack webbed feet and have less shiny fur. Mink are much smaller than otters; mink are less than the size of a house cat, while otters are the size of a medium-sized dog. Mink have less white on their belly than other Mustela weasels and otters, and are brown year-round. Other Mustela weasels have more white on their underside, and many turn white in winter. In addition, mink have bushier tails than other Mustela weasels. Marten and mink are similar sized, but marten have a yellowish throat patch that mink lack, and mink have more rounded ears. Fishers are significantly larger than mink.

Like other members of the weasel family, such as weasels and skunks, mink possess a pair of anal scent glands. The liquid in these glands has a strong smell and probably is used for communication or defense purposes.

Distribution and Habitat

Mink are distributed throughout all of New York State and most of the United States and Canada. They occupy a wide variety of wetland habitat types including streams, rivers, lakes, freshwater and saltwater marshes and coastlines. Their population levels are generally higher in those areas of New York with an abundance of these habitat types.

As part of a mink study in the late 1980s, central and western New York trappers were surveyed to determine the types of habitat where mink were caught. The results are: 62% stream, 9% marsh, 10% lake, and 12% beaver ponds. Nearly three-quarters of the mink were harvested from either stream or beaver pond habitat.

Also, as part of this study, wildlife biologists and technicians surveyed streams in central and western New York to determine the presence of mink. Mink tracks were more abundant in the Southern Tier of New York than in the Lake Plains. The reason for this is uncertain and needs further study.

Mink usually are found in sparsely populated rural areas. However, they occasionally live in suburban settings.

Biology and Behavior

Mink generally are solitary animals, with males and females associating only during the late winter breeding season. Female mink are sexually mature at one year of age. Pregnant female mink may establish den sites in cavities of tree roots, rock piles, brush piles and log jams or beaver lodges. Research in North America shows that the most widely used den sites are bank burrows of other animals, particularly muskrats.

Following a gestation period of about 51 days, the female gives birth to 1-8 young (4 average). Mink kits are born between April and June. Their eyes are closed, they are hairless, and they weigh about 1/4 ounce at birth. They develop rapidly and can eat meat within 5 weeks. Female mink reach their adult weight by the fall of their first year.

Mink are primarily nocturnal with most activity spent feeding. Their list of prey species is varied. Food items include small mammals, fish, birds and amphibians. Mammals such as muskrats, rabbits and small rodents lead the list as the most important food for mink. Waterfowl, small marsh-nesting birds, and crayfish also are important summer foods, while fish are a common food item of mink during the winter months.

Mink are very active and curious creatures. Their presence is seen easily along streams and creeks the day after a light snow. Their characteristic loping gait leaves double print or paired tracks. Tracks often show how they travel from one stream bank to the other, investigating nearly every hole, crack, crevice and overhang that may hide a potential meal.

Mink are equally at home in water or on land. It often is possible to find areas along a stream where they have come up through a hole in the ice to begin their foraging activities along the stream.

Mortality

Unlike many small mammals, mink generally are not preyed on by larger predators. They occasionally fall victim to red and gray fox, bobcat, or great horned owls.

While mink are hosts for parasites such as mites, fleas and lice, these do not cause significant mortality in mink populations. Diseases such as salmonella, distemper and tularemia have been diagnosed in ranch mink, but are not believed to be a serious mortality factor of wild mink populations.

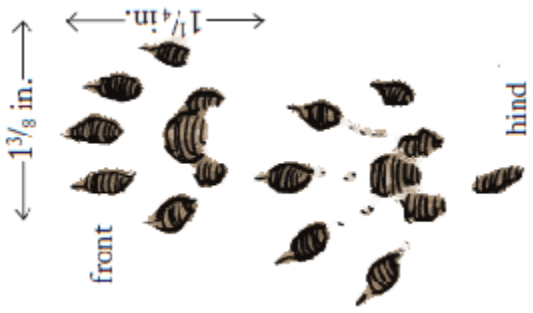
Environmental contaminants are known to affect captive mink. Residues of pollutants such as mercury, pesticides (DDT, DDE and dieldrin) and polychlorinted biphenyls (PCBs) can cause weight loss and reproductive problems in ranch mink that are fed contaminated fish. The effect of these contaminants on wild mink populations is uncertain. However, mink from several areas of New York have been found with high levels of some of these substances in their bodies.

Management

North American mink farm production declined by 65 percent between 1967 and 1974 due to the increase in the world supply of ranch mink produced primarily in Europe. An increase in the demand for fur garments during the mid-1970s reversed this downward trend in North American ranch mink production. There was an increase in the prices paid for all fur. This was followed by a decline in the demand for fur garments in the mid-1980s. This most recent decline has reduced and stabilized the price of all hides, including wild caught mink.

Mink trapping seasons coincide with the periods when mink can be trapped without stressing the population, when pelts are of high quality, and when trappers feel the season is most productive. Seasons open at different times around the state because New York contains many types of land use and habitat. The best and most practical period for mink trapping, biologically and socially, vary with land use and habitat across the state.

The mink population in New York State is secure and able to sustain current harvest levels. Despite the uncertainty of the fur market, the interest in mink remains a high priority among trappers.



Muskrat

Species Type: Mammal
Scientific Name: Ondatra zibethicus

Description

Muskrats (*Ondatra zibethicus*) are easily recognized by their moderate size, their blunt head, and small non-descript ears and eyes. Adult muskrat weigh between 2.5 and 4 pounds, and total length may range from 23-26 inches, with a tail length of 8-11 inches. A scaly, laterally compressed tail with a fringe of coarse hair along the underside of the tail is a feature muskrats share with no other New York State mammal. They possess large hind feet with partial webbing in between their toes with a row of coarse hairs along the outer edge of each foot. Their fur can vary in shades of brown and in some cases black and consists of a soft, dense undercoat with an interspersion of longer, coarse guard hairs.

Habitat

Found throughout New York State, muskrats occupy a variety of aquatic habitats including ponds, lakes, marshes and streams, and can also occur in brackish habitats. They prefer marshlands, but are found to occupy wetlands and waterways that are heavily vegetated, particularly with cattails, bur-reeds, and bulrushes.

Food and Feeding

The roots and stems of aquatic vegetation are the muskrats' dietary staple. Animal matter is also consumed in times of vegetation shortages or peaks in abundance of invertebrate species. They have been known to eat mollusks, fish, various invertebrates and even turtles. Classic signs of the presence of muskrat are well-matted resting and feeding platforms such as the bare edges of stream banks, the tops of tussock grass clumps, or nestled within aquatic plants. These are often littered with piles of vegetative debris and occasionally crayfish or mussel remains, as well as droppings. Muskrat foods will vary with the type of habitat. Marsh dwellers may eat aquatic plants such as cattails almost exclusively, whereas animals in large bodies of water such as lakes and ponds may be more opportunistic, thus accounting for a more omnivorous diet.

Behavior

Primarily nocturnal, muskrats may also be active during daylight hours and remain active year round, as they do not hibernate. Muskrat will defend their territory vigorously from other muskrat and potential predators, especially prior to and during the breeding season. Territory holders are usually older adults, while younger animals remain subordinate and are more likely to fall victim to predators as they are forced into sub-optimal habitats by territorial adults.

Ecology

Den construction is dependent upon the type of habitat occupied. When in a stream habitat, muskrat burrow into the banks to create dens. One or more entrances are hidden underwater and lead to chambers located above the waterline. They excavate channels or runways in shallow water leading from den entrances for ease of mobility. In marshy habitats, a dome-shaped hut is constructed on a firm substrate using emergent vegetation in the immediate area. Regardless of den type, muskrat activity may be destructive to the banks of waterways and plant communities in the immediate area of a den site.

During winter months, another type of structure created by muskrats is referred to as 'push-ups' or 'breathers'. These are masses of vegetation collected from underwater and pushed up through cracks or holes in the ice. Ultimately, these freeze solid and serve as resting places and are maintained as breathing holes.

When muskrats manipulate vegetation during feeding or while constructing dens, they impact many other species that share these habitats. Some species, such as turtles, use muskrat houses as winter hibernacula. Canada geese and mallards will nest on top of muskrat huts. A unique ecological situation occurs in western New York that includes muskrat, bur-reed, and the state endangered black tern. As muskrat consume the bur-reed, a primary food item, they create open matted areas on the water surface that black terns can use as courtship and nesting areas, thereby increasing tern reproductive success.

Reproduction

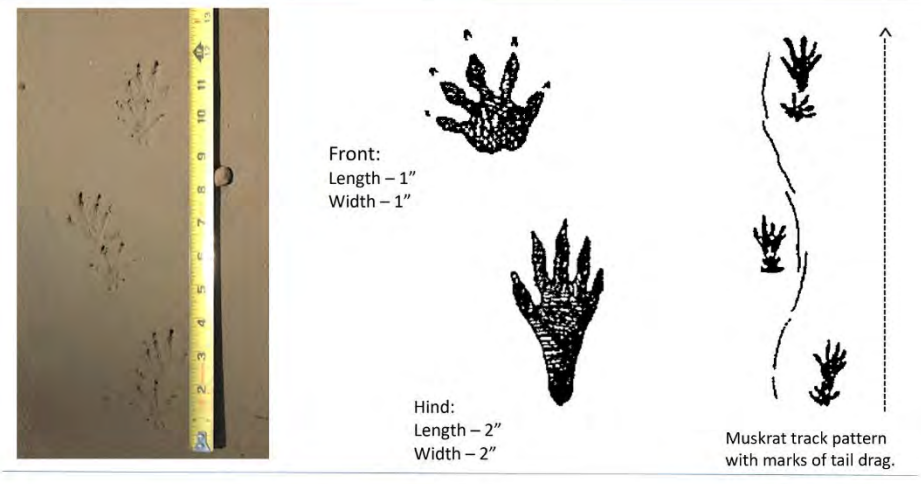
The breeding season starts in April, with the first litter born in early May. After a gestation period of 25-30 days, muskrats give birth to 4-8 young or kits, and can have up to three litters a year.

Nearly hairless at birth, kits are blind for about the first two weeks of their lives, after which they venture out of the den for their first swim. Females born in early spring may mate in autumn of the same year; however, muskrat in the northern parts of the species range do not reach sexual maturity or adulthood until the April following birth.

Predators, Parasites, and Diseases

Automobile collisions and trapping are two major sources of muskrat mortality. In addition, muskrats are a valuable food source for a wide variety of predatory wildlife. Raccoon and mink are their primary predators and other carnivores such as fox, coyote, red-tailed hawks and great horned owls readily prey on muskrat.

Historically, muskrat are susceptible to and have been ravaged by a variety of diseases such as tularemia, leptospira, salmonella, and hemorrhagic fever, but these diseases have not been extensively reported in New York State. As with most wildlife, muskrats can act as hosts to a wide variety of endoparasites such as intestinal roundworms and tapeworms that do not necessarily have a negative impact on the animal's overall condition. External parasites such as fleas, mites and ticks, which inhabit the soft underfur, also take up residence in the warm, dry interior of muskrat houses.



New England Cottontail

Species Type: Mammal
Scientific Name: Sylvilagus transitionalis
Conservation Status: Special Concern

New York Status: **Special Concern**
Federal Status: Not Listed

Description

The New England cottontail (NEC) is a small mammal in the Leporidae family. Adults are 15-17 inches long and weigh about 2 pounds. NEC are very similar in appearance to the Eastern cottontail. However, NEC have shorter ears, a black spot between the ears, and a black line on the front edge of the ears, while Eastern cottontails have a white spot on the forehead. It can be very difficult to identify the two species just by their physical appearance alone, and researchers often analyze the DNA of fecal pellets for live rabbits or look at the skulls of museum specimens.

Life History

New England cottontails hide in dense cover during the day. They can be active at night, but are most active at dawn and dusk when they feed. Home ranges can be from half an acre to as many as eight acres. Males tend to have larger home ranges than females.

Mating begins in the spring and can run through September, so a female can produce several litters in a season. Gestation (pregnancy) is about four weeks and they tend to have four or five young (kits). The average lifespan of a NEC is about 15 months.

In summer, cottontails eat grasses and the shoots, stems, leaves, flowers, and seeds of many herbaceous plants. In autumn, rabbits switch to eating bark, twigs, and buds of woody plants, such as blackberry, raspberry, blueberry, and willow.

Distribution and Habitat

The New England cottontail is native to New England and eastern New York, whereas the well-known Eastern cottontail was introduced to the area in the early twentieth century to increase hunting opportunities. The state's New England cottontail populations are only found east of the Hudson River in Columbia, Dutchess, Putnam, and Westchester counties.

The NEC, which used to be known as the brush rabbit or woods rabbit, is a mid- to late-successional species, preferring shrubby areas, thickets, and wetlands with some canopy cover (tree cover). Areas with older shrubland with good understory are often favorable. However, ideal habitat should contain native shrubs as too many invasive shrubs, such as Japanese barberry, can have a negative impact. Areas with lots of barberry often contain a higher number of ticks, which can cause health problems due to excessive blood loss.

Status

Habitat loss and competition with Eastern cottontails have caused dramatic declines in populations across NEC's range. The New England cottontail is listed as a species of greatest conservation need, threatened, or endangered within every state in its current range.

New England cottontails were once common throughout New England and eastern New York, but due to natural forest succession (a change from fields/shrubs to forests over time) and loss of habitat to development, they now occupy less than 15% of their historic range.

Challenges to New England cottontails include:

- fragmented habitat-they need connected habitat patches, and roads can be significant barriers
- competition with non-native Eastern cottontails
- predation
- high tick load
- low genetic diversity due to population fragmentation and isolation

Management and Research Needs

Along with five other northeastern states, New York is part of an initiative to help the New England cottontail through research and habitat management. Researchers are attempting to create their preferred habitat in geographic focus areas where populations have been reduced, but are not yet eliminated. To conserve NEC effectively, more information on their population sizes and the distribution of suitable habitat in New York is needed. We also need to combat the loss of genetic diversity, evaluate the impacts of hunting on NEC populations, and try to keep Rabbit Hemorrhagic Disease out of the state.

Monitoring Populations and Captive Breeding Efforts

DEC staff have monitored NEC since 2005 by analyzing the DNA of rabbit fecal pellets. Staff analyzed hundreds of samples from about 50 sites, which provided accurate information on the distribution of NEC in New York. Population density and number of rabbits are estimated from this data, but are not measured directly at most locations.

DEC staff have captured a few NEC and provided these to the region-wide captive breeding effort, with their offspring being released at suitable locations in New England, but captive bred rabbits have not been released in New York.

How You Can Help

Consider these best management practices for NEC habitat management:

- If you have anything you consider a thicket, bramble or briar patch, consider leaving it for wildlife. If you can't walk through it, it's probably good for NEC!
- If you own forest land and you are removing trees, try to avoid clear-cutting. Leaving some larger trees as canopy closure may give NEC an advantage over Eastern cottontails.
- Minimize disturbance if possible by hand-cutting trees instead of using heavy machinery; protect seedlings and native shrubs during cutting.
- Provide additional cover such as brush piles or leaving cut trees on the ground.

NEW YORK STATE | Department of Environmental Conservation

Northern Long-eared Bat

Scientific Name: ***Myotis septentrionalis***

New York Status: **Endangered***
Federal Status: **Endangered***

*On November 29, 2022, the United States Fish and Wildlife Service (USFWS) published a ruling reclassifying Northern Long-eared Bat from Threatened to Endangered under the federal Endangered Species Act. This rule is effective **March 31, 2023**. The change to Endangered in New York will take place at the same time as the Federal listing.

Distribution and Habitat

Northern long-eared bats (NLEB), also known as northern Myotis, are primarily forest-dependent insectivores. They utilize a diversity of forest habitats for roosting, foraging and raising young. In general, any tree large enough to have a cavity or that has loose bark may be utilized by NLEB for roosting or rearing young. Prior to 2006, NLEB were frequently detected in the forests of every county of New York State with the exception of the 5 counties of New York City. Since they feed predominantly on flying insects, they hibernate through the late fall and early spring to save energy when food is not available. Most known hibernation sites are caves or abandoned mines.

A northern long-eared bat in its hibernaculum.

A Species in Decline

NLEB were listed as "threatened" by the United States Fish and Wildlife Service (USFWS) under the federal Endangered Species Act on April 2, 2015. In New York, all federally threatened species that occur in the state are afforded threatened status under the New York Endangered Species Law and its implementing regulations. As recently as 2005, the NLEB was New York State's third most common bat species with populations estimated at or above 500,000 animals. The federal listing was the result of a dramatic population decline throughout most of the species' range. These declines have been caused by white-nose syndrome (WNS), a disease caused by an invasive fungus that ultimately causes affected hibernating bats to starve to death over the winter. Since WNS was first discovered in New York in 2006, a 98% decline in the abundance of NLEB has been observed. DEC is actively working with researchers from around North America to develop a management approach that will aid the recovery of this species. In the meantime, legal protections afforded by the listing status of the bat are focused on minimizing and avoiding direct loss of the remaining individuals by protecting the known hibernation sites and limiting forest management activities where NLEB are most likely to be present to certain times of the year.

General Recommendations for the Protection of Northern Long-eared Bats in New York

This section provides guidance regarding recommended measures to ensure that forest management activities are protective of the northern long-eared bat (NLEB) and do not result in an incidental take pursuant to 6NYCRR Part 182.

Guidance from DEC

Because it is the disease (WNS) and not habitat that is currently limiting the population, removal of trees from the landscape is generally not considered harmful unless there are potentially bats within the trees during the time they are harvested or otherwise removed from the landscape. We do not have perfect information on where NLEB occur. To protect NLEB from unintentional harm, the Department encourages the voluntary implementation of all forest management activities during the hibernation period-**November 1 through March 31 throughout the state and December 1 through February 28 in Suffolk County**-when bats are not expected to be present. However, DEC imposes no restrictions on tree cutting unless a project is located within 5 miles of a known hibernation site or 1.5 miles of a documented summer occurrence. See the Protection of Northern Long-eared Bats page for a map and list of known NLEB occurrences by town. For all projects that require the removal of trees, the following voluntary actions are recommended:

- Leave snag and cavity trees uncut unless their removal is necessary for protection of human life and property. Snag and cavity trees are defined under DEC Program Policy ONR-DLF-2 Retention on State Forests.
- If any bats are observed flying from a tree, or on a tree that has been cut, tree management activities in the area should be suspended and DEC Wildlife staff notified as soon as possible. A permit may be required to continue work, or you may have to wait until November 1 to resume activities.

If your project is located within 5 miles of a known hibernation site or 1.5 miles of a documented summer occurrence, please see Protection of Northern Long-eared Bats for additional guidance.

For more information on other species of bats, visit Watchable Wildlife.

Raccoon

Species Type: Mammal

Scientific Name: Procyon lotor

Description

Raccoons are "well-rounded," often plump, with reddish brown to grey fur. Adults weigh an average of 15 pounds, and are readily identified by alternating rings on the tail and characteristic black "mask."

Raccoons are important furbearers, providing income and recreation to hunters and trappers in New York State. Many people enjoy watching or photographing raccoons. Some people feed them, but this is unnecessary and unwise. Keeping raccoons as pets may be harmful to both humans and raccoons, and is illegal.

Distribution and Habitat

Raccoons are among the most widespread mammals in New York State. The adaptable raccoon can be found everywhere, from the most remote forest to the crowded inner city. Raccoon populations often are denser in large cities than in the wild, but abundance varies widely in different types of habitat and different parts of the state.

Behavior

Raccoons feed mainly at night. They eat fruit, nuts, berries, small animals, and insects and also will feed on pet food, garbage, and garden crops.

Female raccoons look for den sites in late winter. Litters of one to seven young are born in April and May. Young raccoons open their eyes about three weeks after birth, and often announce their presence with mewing, twittering, or crying sounds. They nurse for about six weeks, then leave the den to follow the mother until September or early October when they disperse and establish their own territories.

The raccoon’s scientific name is Procyon lotor. It means “washing bear”. This is a very fitting name for this animal because of their interesting behavior: Their seemingly strange habit of washing their food.

There have been many theories about why they do this and for a long time, many people believed that the raccoons are just washing away the sand and grit from their food before eating it, but there is a problem with this theory: Raccoons live in many different areas, including forested wetlands and coastal marshes.

The raccoon’s behavior has puzzled many people enough that scientists have conducted studies to understand this behavior – And as it turns out, they do not actually wash their food to clean it. What they’re doing is what scientists called **dousing**.

When raccoons dunk their food in the water and, seemingly wash it, they are really just making their paws more sensitive. Water increases the tactile nerve responsiveness of their paws and this allows them to learn more about the thing that they are holding and eating. This lets them feel the texture of their food more and makes it easier for them to pick out what they want or don’t want in their mouths.

Dousing provides extra sensory input and helps them understand more about the food item that is in their hands. It helps them to understand the

shape, size, and texture better because the majority of their food is made up of small things that are hard to see in the dark.

Essentially, this is how they “see” their food. By putting it into the water, they can determine what it is much better than if they were to just grab it with their paws and then eat right away.

Raccoons, being nocturnal creatures, have lived in the dark most of the time and they rely on their other senses, especially touch so that they can make sense of the objects around them. Dousing has been the raccoon’s way to explore their food and find out what it is before eating it, much like how we use our hands when exploring an object in front of us.

Mortality and Disease Factors

Canine Distemper

Canine distemper is a common disease and is usually fatal. Raccoons with distemper act tame or confused, and eventually lose coordination, become unconscious, and die. Distemper cannot be transmitted to humans or immunized pets.

Raccoon Rabies

Raccoon rabies reached New York in 1990 and has become widespread. Rabies is a viral disease with symptoms similar to distemper. Rabid raccoons may behave aggressively, salivate heavily, or have paralyzed hind legs. Rabies can be transmitted to humans and other animals by the bite of an infected animal. If you suspect a raccoon is rabid, avoid or destroy the animal and contact local health officials.

Roundworm

Roundworm infects most raccoons in New York at some time in their lives. The roundworm rarely causes the raccoon any problems, but the animals pass large numbers of eggs to the environment. Eggs ingested by another animal may hatch and cause nerve damage.

Management

Raccoons are protected by law. No one may possess a raccoon without a license, and licenses are not issued for pet wildlife. Hunting or trapping raccoons requires a license. The law allows unlicensed homeowners and farmers to destroy raccoons that damage property. However, property owners should try eliminating food and shelter before killing the animal.

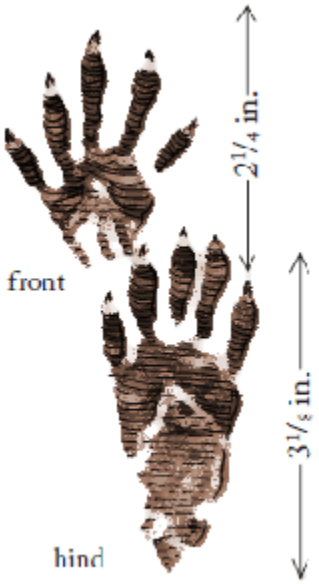
Except where temporarily reduced by rabies or distemper, raccoon numbers may be very high. While densities in rural areas may be 20 - 40 raccoons per square mile, raccoon densities in some developed parts of the state (e.g. Long Island) may exceed 100 per square mile.

Raccoons can become a nuisance if people unknowingly supply food or shelter for them. They can be attracted by food available in gardens, fish ponds, pet feeders, or garbage or by cavities that might offer shelter.

Here are some ways to prevent raccoons from becoming a nuisance:

- Do not leave pet food outside. Feed pets only as much as they will eat at once, and remove all leftovers. If necessary, place pet feeders in an enclosed area such as a porch, garage, or barn.
- Keep garbage bags in an entry-way or garage, and in a metal can. Run a rubber strap, rope, or soft wire through the lid and attach to the can handles. To make it hard for raccoons to remove lids, hang the can one foot above the ground or use a rack and secure the cans upright.
- Surround gardens with an electric fence made up of two wires attached to an insulated post: one wire four inches and the other eight inches above the ground. Install the fence before vegetables ripen.

- Block the openings raccoons are using to get into your attic, porch, or other location. Place a temporary cover when the raccoons leave on their nightly search for food, and make a permanent seal later. To check if the raccoons have really left, sprinkle twigs, grass, or flour in the opening and watch for tracks. Caution: do not permanently seal entrances without first verifying that all animals are out of the den. Especially in the spring, look and listen for animal noises.



Red Fox

Species Type: Mammal

Scientific Name: Vulpes vulpes

Description

Adult red fox have a year-round red coat that is typically much more striking during the winter months; a washed out orange to cherry red. The red portions cover the head, shoulders and back, and the rump may be either red or a light gray. Worldwide there are 45 recognized subspecies that can look drastically different, from grey to blackish-brown, platinum to amber, and even a very elusive white morph. Some of the most well-known non-red variations include the silver fox, covered in black fur with white tips, and the partially melanistic cross fox, with its striking coal-black patches. Jet black marks the legs and ears and the chest and throat are typically a light gray to white. Their tails are typically very bushy and cylindrical in shape, and they occur in variety in colors, blacks and reds predominating, with a characteristically white tip.

Males are generally larger than females, but no definitive comparisons have been made. Individuals may average from 8-15 pounds as adults, and vary in total length from 48 - 57 inches. The tail accounts for nearly half of that length.

Distribution and Habitat

Red fox are the most widely distributed carnivore in the world, and are known to occur in nearly every county of New York State. Preference is given to open country, with an aversion to open landscapes devoid of vegetative cover or deep forests. Lands with a mixture of old fields, forest edges, and farmlands may all serve as prime red fox habitat, as a mixed landscape provides ample foraging opportunities and cover from would-be predators.

Residential suburbs also provide ample habitat and a substantial prey base. Broken wood lines alongside lawns, roadside ditches, and utility rights-of-way provide plenty of cover and potential denning sites. Expanding coyote populations (a potential predator of red fox) have pushed red fox further into residential areas in recent years.

Food and Feeding

As with most of New York's predators, the red fox has a variable diet, likely coinciding with local prey populations and seasonal availability of small mammals and birds. Small mammals such as mice, squirrels, woodchucks, and rabbits comprise the majority of their mammalian diet, while birds such as grouse, nesting waterfowl, and other ground-nesting birds and their eggs are the most important avian food items in their diet. Other opportunistic food items such as nestling songbirds, various amphibians and reptiles, invertebrates such as earthworms, and carrion are all consumed as the opportunity presents itself. Additionally, red fox have a sweet tooth as they have been noted to consume ripening grapes and apples in the early autumn.

Use of food caches is common for this species. Foraging behaviors most commonly seen include erratic movements in open grassland, head and ears erect searching for the slightest rustle of grass or a glimpse of fur. Once a prey item is located, a fox will freeze, presumably to zero in on the location, followed by a quick aerial pounce and capture of the prey.

Reproduction

Red fox breed in New York from December to April, with a peak between January and February. This species maintains lifelong breeding companions. After a gestation period of about 52 days, females give birth to litters that vary in number

from 1 to 12, with 3 - 6 being common. Young are born blind and helpless, and are weaned by week 12 when they learn to hunt for themselves. Both males and females play a major role in food acquisition for growing pups.

Dens are usually found in abandoned woodchuck or other small mammal burrows, widened to suit the needs of a family of foxes. Their basic structure consists of the main channel, with a chamber or a widening of the main channel, lined with grasses and other forbs to make a dry refuge and birthplace for their pups. Dens vary in location, and may be found among the root systems of large trees along the banks of streams or gullies, in or beneath hollow logs or hedgerows, or anywhere a woodchuck might decide to dig their burrow. It is common to find a den with multiple entrances. As temperatures in the den increase with the onset of summer, red fox will move the pups into a new den site every few weeks to minimize exposure to parasites such as fleas.

Females are ready to breed in their first autumn, but may not produce offspring until their second year. Dispersal among littermates varies by region, food availability, and habitat quality. Between the months of September and January territoriality between parents and offspring occurs after the rearing period has ended, thus resulting in the dispersal of offspring. Some individuals have been documented to travel over 100 miles in search of unclaimed territories.

Behavior

The core of red fox social structure is the family unit, as this species is monogamous and actively defends their territories from other red fox. Territorial disputes are seldom marked by violent encounters and usually consist of antagonistic displays, chasing, and harassment. Territories are maintained year round.

Red fox are highly mobile and can cover long distances on a daily basis. Travel of greater than 6 miles is not unheard of. Range expansion occurs during the winter months, presumably due to a decreased availability of prey, and contract during the rearing season. Displayed feces and scent posts marked with urine are evidence that red fox are wary of other foxes, and as a result territories seldom overlap.

Primarily nocturnal, red fox may occasionally be seen during the day. The activity of females during daylight hours increases with the feeding demands of growing pups; otherwise daytime is spent resting in regular spots, oftentimes above ground.

Even though an adult red fox is only about half as tall as a toddler, it would likely have no problem jumping over a fence six feet tall. These athletic creatures are known for pouncing on mice and other small rodents burrowing in the snow, using the earth's magnetic field to help them hunt. They can run at speeds of up to 30 mph, handy for escaping bears, mountain lions, coyotes, or any other predator that may come after them.

Predators, Parasites and Disease

Most predators whose distribution overlaps that of the red fox have been known to kill this species as either prey or as competition for food resources. In New York, coyotes have been thought to have a significant impact on red fox populations, and although general distributions may overlap, red fox tend to avoid coyote territories completely or reside on the periphery of established coyote territories. Bobcat and domestic dogs may also contribute to red fox mortality.

Human trapping and hunting efforts and automobile collisions comprise the majority of human-related mortality. Red fox are a historically popular commodity in terms of fur harvest and sales.

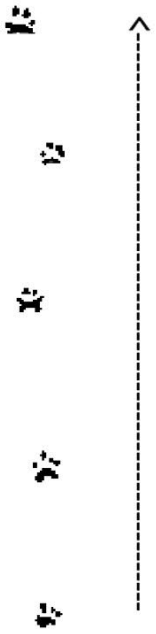
Red fox are host to a wide variety of parasites, both internal and external. Internal parasites range from protozoans to roundworms and tapeworms. Of particular importance in New York State are heartworms, a roundworm found in the right ventricle of many canids that is only transmitted by infected mosquitoes.

Red fox are very susceptible to mange, a disease caused by the mite *Sarcoptes scabei*. Mange mites burrow into the skin, thereby causing irritation, skin thickening (hyperkeratosis), and hair loss. Infected individuals may make it through the summer months, but quickly succumb to hypothermia once winter arrives.

Canine distemper and rabies are diseases that affect the central nervous system in all mammals and are both important factors regarding red fox mortality. Rabies poses a substantial human health risk, while distemper does not. These diseases can be recognized by clinical signs such as disorientation, a marked increase in aggression, and a basic loss of all typical behaviors. Both diseases are transmissible through saliva via bite wounds or exposure of damaged tissue to saliva and almost always result in the death of the infected animal.

Front:
Length - 2⅜”
Width – 2”

Hind:
Length - 2⅛”
Width – 2”



Red fox track pattern

The complex paws of the red fox include fur over the footpads — which helps keep them warm, sense prey, and muffle their approach — and an extra digit on the two front feet. Whereas the back feet have only four digits apiece, the forepaws have five. The dewclaw, as it's called, is located higher than the other toes on the back of the leg and provides traction when the fox is running at high speeds on slippery ground. Many birds, reptiles, and mammals (including dogs) have this extra toe, but the red fox has it only on two feet.

River Otter

Species Type: Mammal
Scientific Name: Lontra canadensis

Description

The North American river otter is a member of the mustelid or weasel family that can be easily identified by a stout body, short legs, noticeably tapered tail and dense, short, glossy fur. Their streamlined body, fully webbed feet, broad and flattened head and stout, muscular tail, and closeable nostrils and ears all serve to assist in swimming and foraging. Their eyes, ears, and nose are located on the top of the head so they can see, hear, and smell while most of their body remains in the water.

Distribution and Habitat

Historically, river otter could be found in all watersheds of New York, and declines were attributed to unregulated harvest, habitat destruction, and water pollution. As recent as the early 1990s, the river otter was only found in the eastern half of New York State, while the western regions were devoid of otter except for the occasional individual that happened to be passing through.

In the late 1990s, the New York River Otter Project aimed to restore river otter to the watersheds of western New York. From 1995 through 2000, 279 river otter were captured in eastern New York and released at 16 different sites across the western part of the state.

Life history studies have shown that otter are dependent upon permanent watersheds, and otter may be found in rivers, lakes ponds, small streams, marshes and other inland wetlands. Suitable habitat will exhibit a high percentage of emergent vegetation, or in the case of natural waterways, expansive riparian corridors.

Food and Feeding

River otter could be considered somewhat of an aquatic generalist, as they consume almost anything they encounter and can catch. Primarily visual predators, their eyes are shaped in a way that facilitates underwater vision and acuity. In situations where murky water occurs, they are further enabled to forage by 'motion sensitive' whiskers that help them cue in on prey location and movement.

Although fish comprise the majority of their diet, amphibians and crustaceans and other aquatic invertebrates are also taken when available. They may also eat small mammals and birds (e.g., muskrat and waterfowl), reptiles, and even fruit. Otters have been known to consume vast amounts of hibernating woods and snapping turtles. These instances have detrimental effects on local populations of turtles and could wipe out local turtle populations.

Since river otter are at the top of the food chain, they have a greater chance of being exposed to elevated levels of environmental contaminants such as PCBs, DDT and its associated metabolites, and heavy metals such as cadmium and mercury. This means of exposure is referred to as bio-magnification. As contaminants accumulate in the organic materials and sediments on the bottom of a waterway, they become ingested by aquatic invertebrates such as snails, mussels, and insects. These are in turn consumed by fish, which may then be eaten by larger fish, all of which are consumed by river otter. This accumulating effect results in elevated levels of pollutants in river otter due to the ingestion of contaminated food items. At such high levels, some of these contaminants can have negative impacts on otter ranging from poor survivorship to sterility or infertility.

Reproduction

Adult river otters breed with more than one mate in their lifetime, and the breeding season may span from December to May. Females delay implantation of sperm, and this may result in fertilization occurring from 10-12 months after initial copulation. Litters usually range from 1-3, but 5 kits may occur. Juvenile dispersal usually occurs between 12 - 13 months of age, and distances of over 100 miles may be traveled before a suitable home range is found.

Behavior

The main social unit is the family, or an adult female and her young. Otter do maintain home ranges, as family groups have been noted to avoid one another. One such method of maintaining a home range would be the classic latrine sites, or toilet areas that they will both defecate and urinate at repeatedly. They will choose almost any object or piece of land that protrudes from the water or the bank including large conifers, points of land, beaver lodges or exposed root systems.

Otters are nocturnal by nature, but they can be seen by day foraging or playing, and daytime activity increases during the winter months. There is no hibernation period -- they are active year-round. Prints are often paired, grouped, or laid out in angled strings. One key feature to look for is the tail drag marks. Due to their large, thick tail, it is often seen scraping over and between print sets, especially in snow. Another feature indicative of otter sign will be their slides. These slides can be found on flat ground with snow or grass cover, or snowy or muddy slopes into the water. This method of locomotion is used as a means of transport and play.

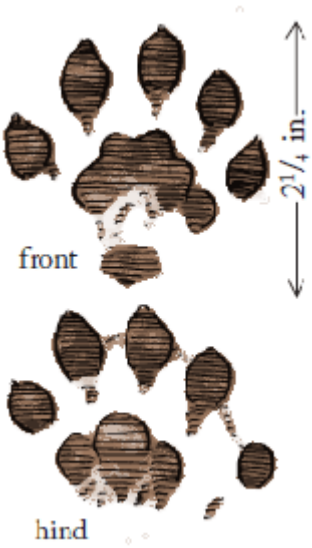
Ecology

Although the accepted, common name is the river otter, it might be suitable to rename it the swamp or inland wetland otter, due to its strong association with aquatic, emergent vegetation, and their affinity to freshwater wetlands. Beaver ponds are often home to both otter and beaver, and there have been reports of both species inhabiting the same lodges with little in the way of reported, negative encounters.

A diversity of structure along occupied water bodies appears to be of considerable importance, not just for foraging opportunities, but in regards to suitable den sites as well. Steep banks, with ample structure above and below the water allow for habitation of winter retreats, and ensure that unrestricted access to both terrestrial and submerged habitat are available.

Quick Facts About Otters

- Otters groom their fur with a "towel" made of moss or grass.
- The otter is a swift and agile swimmer, using its muscular tail to make sharp turns and steering with its neck and webbed feet.
- Size: 3-4' long including the tail which is about one third of the total length. 10-30 lbs.
- Appearance: Dark shiny brown fur.
- Tracks: 3' wide and round in shape. In the winter, look for 6" wide troughs formed when otters slide through the snow into the water.
- Scat: Otters choose a prominent location such as a rock or peninsula of land for their "toilet" and use it over and over. Look for large collections of scat in such areas.



Striped Skunk

Species Type: Mammal

Scientific Name: Mephitis mephitis

Description

The striped skunk is an interesting component of New York's wildlife assortment. It is about the size of a house cat and has a potent musk that often overshadows the beauty of its glossy and durable fur. Formerly a member of the weasel family (with mink, otter, fisher, marten), skunks have now been classified into their own family, "Mephitidae". Like the more glamorous members of the weasel family, the skunk also has glossy and durable fur that can be dyed uniformly black for exquisite garment trimming.

The skunk's best-known feature is its ability to squirt an extremely potent and disagreeable secretion at potential attackers. The Latin name for skunk, Mephitis mephitis, means "double foul odor."

Distribution and Habitat

The skunk lives in a variety of habitats but prefers open areas. Its numbers usually decline as abandoned fields and pastures become forested. However, roadside and lawn mowing, or any maintenance practice which prevents the development of a forest canopy, favors the continued existence of skunks. Residential areas that have both lawns and large, mast producing shade trees often provide optimal habitat for skunks.

Biology and Behavior

Striped skunks mate in February and early March. Females give birth in May, often in woodchuck burrows, to an average litter of six. It is not unusual to see a female skunk with a line of little black and white copies following her across a damp pasture or lawn on an early July morning.

Skunks forage at night or at dawn for a variety of foods including berries, grasses, nuts, and other vegetable material, as well as worms, insects, grubs and the nestlings of birds, mice and cottontail rabbits. They also prey on woodchucks and other young animals in burrows. Skunks often leave holes in the ground where they forage for insects or tear apart ground nests of small animals.

Although skunks in New York retreat to winter dens and remain inactive for extended periods, they do not hibernate. Males in particular are likely to be active aboveground periodically. They may be active even during cold weather, especially during the breeding season.

Skunks are vulnerable to a variety of internal and external parasites. They also can get and spread rabies and other wildlife diseases. Skunks have been the most commonly confirmed rabies species, other than raccoons, during the spread of raccoon rabies throughout Southern New York. Coyotes, foxes, owls, bobcat and fisher will prey on skunks, and collisions with cars are a common cause of skunk deaths.

Preventing Conflicts

The striped skunk can be a difficult neighbor because of its fearlessness and effective weaponry. One of the most common skunk complaints, a strong odor of skunk essence during the nights of early fall, often is the result of inadequate home maintenance and of allowing dogs to roam free at night.

This happens in early fall because skunks search for cubby holes to spend the winter. Damaged building foundations and spaces underneath porches serve this purpose well. A free roaming dog often aggravates the situation by chasing the prowling skunk. The resultant "dog training lesson" can offend a whole neighborhood. The remedy is to close or screen all holes and crawl spaces, and to keep dogs confined.

An interesting side note is that house cats tolerate the presence of skunks. In the days of small dairy farms, several dozen barn cats often ate from the same pan of milk after each milking. Many a farmer arrived to pour the dregs of the milk strainer into the cat dish and found that one of the cats had a broad tail and a characteristic white "V" across its back. For this reason, it is not wise to feed a house cat outside your home after dark.

Handling Trapped Skunks

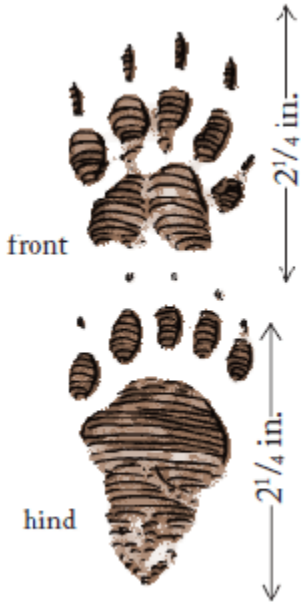
A beginning fox and raccoon trapper may be dismayed upon finding a skunk in a trap set in a pasture or meadow. Likewise for a homeowner or nuisance wildlife control agent who finds a skunk in the box trap set in the backyard. Surprisingly, a skunk seldom sprays when caught in a foothold or box trap. Moving a skunk in a box trap is easy if you cover the trap with a dark blanket so the animal can't see you. Transport the covered trap without too much jostling, and the animal will not spray.

Management

The striped skunk has been protected under the Environmental Conservation Law since the late 1800s. Perhaps the value of skunk musk to the perfume industry, combined with the commercial use of their pelts, caused early legislators to give skunks special consideration.

You may have heard that pelts of the striped skunk once were more valuable than they are in the current fur market. A strong market for fur-trimmed cloth coats developed in the late 1930s as our country recovered from the Great Depression. Striped skunk is ideally suited for this purpose because the white hairs of the pelt become a uniform, glossy black when dyed. Skunk pelt prices may have doubled from about 1939 through the early 1940s, but they were never as valuable as red fox. Although a market still exists, it is not as vigorous as it once was.

Protection and promoting general public awareness of a species is a good way to secure its status. Each year the New York State hunting and trapping regulation guides remind hunters and trappers that the striped skunk is a valuable furbearing resource. The regulations allow only a limited, open harvest season. This type of regulatory protection has been successful. The striped skunk is abundant in New York and its populations are secure.



White-tailed Deer

Species Type: Mammal
Scientific Name: Odocoileus virginianus

Located throughout the state, the white-tailed deer (*Odocoileus virginianus*) is New York's most popular game animal. Residents and visitors to the state derive countless hours of enjoyment from the white-tailed deer resource. Each year, more than 500,000 deer hunters contribute nearly $1.5 billion to New York State's economy through hunting-related expenses. Through license purchases and federal excise taxes, hunters generate over $35 million to support management activities of NYSDEC. Hunters take some 220,000 deer annually, filling freezers with roughly 10.8 million pounds of high quality local venison. Largely due to efforts of more than 3,000 volunteer Hunter Education instructors, hunters continue to demonstrate exceptional safety records.

As a large herbivore, deer also play a role in shaping the landscape. Oftentimes, this can compete with human interests. Abundant deer populations can negatively affect plant communities and the other wildlife dependent on those communities. Deer can also cause problems for farmers, tree growers and homeowners. Additionally, they are a frequent hazard to motorists. Deer management seeks to maximize the benefits of this resource while being mindful of the human and ecological concerns associated with abundant deer populations.

Quick Facts About White-Tailed Deer

- Only male deer have antlers, which fall off every winter and regrow every summer. Developing antlers are covered with a soft skin called velvet, which is full of blood vessels.
- Deer can swim, run up to 35-40 miles per hour, and jump over an 8-foot-high fence!
- Deer communicate with scent and body language, in addition to vocalizations.

What to Watch for

- Size: 3 to 3.5 feet tall at the shoulder. 125-200 pounds, although males can weigh up to 300 pounds.
- Appearance
    - Adults: have reddish-brown coats in summer; grayish-brown in winter.
    - Fawns: are reddish-brown with white spots.
    -

Deer are often found on the edges of forests and in open areas by roadways, farm fields, or waterways. These wary animals are often quiet, but they make more sounds than most people realize. Fawns may bleat to get the attention of other deer. Adult deer may snort or stomp a front foot when they are disturbed or frightened. During mating season, bucks sometimes make a grunting noise.