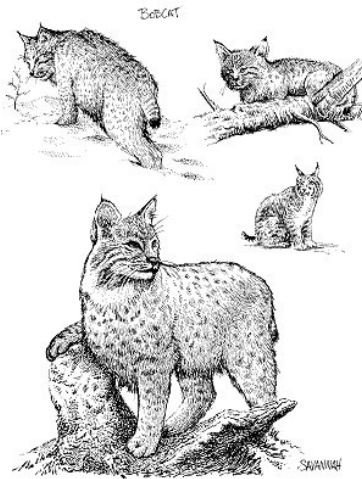


Eastern Bobcat

Lynx rufus rufus



Two "wildcats" are found in Vermont, the eastern bobcat (*Lynx rufus rufus*) and the Canada lynx (*Lynx canadensis*). The eastern bobcat is sometimes referred to as the bay lynx, while the Canada lynx is referred to simply as the lynx. Despite the similarity in Latin names, these cats are different species and each has a very different population status in Vermont. The eastern bobcat is still common throughout most of the state, even though it is rarely seen. The main reasons for the lack of bobcat sightings are twofold; it is solitary by nature and it is crepuscular, or mostly active at dawn and dusk. The Canada lynx on the other hand, is nearly extinct in Vermont, if it occurs at all, and is on Vermont's Endangered Species list. It requires large tracts of deep, fluffy snow with abundant snowshoe hare populations in order to compete with the more adaptable bobcat.

Vermont Wildlife Fact Sheet

Physical Description

Bobcats are somewhat larger than a big housecat, averaging 15 to 20 pounds. Though extremely rare, some larger males have weighed between 40 and 46 pounds, with the record held in Jackson, New Hampshire at 52 pounds. In general, males will weigh more than females.

The bobcat's short "bobbed" tail is probably responsible for its common name. The tail is white in color on the underside and has black bands on top. A broad black band marks the tip of the tail. The bobcat's belly and legs are heavily spotted in black. In sharp contrast to the white of the muzzle, black streaks radiate out from its face on its long cheek fur. Noticeable black lines appear in a symmetrical pattern on the top of its head with less noticeable lines found also on the sides of its body.

"Bay lynx" is thought to refer to the coat color of the

bobcat, bay referring to a reddish-brown coloration. This color is darker than the bobcat's usual coloration. The bobcat's coat changes color depending on the season and habitat conditions in its environment. In summer, the bobcat has a relatively light coat of reddish brown, mixed with gray and yellow. This coloration is often referred to as "tawny". In winter, the bobcat's short dense fur is noticeably grayer. In relation to habitat conditions, a bobcat that lives primarily in a hardwood forest tends to have a darker coat.

The bobcat's ears are a distinctive feature. The back of the ear is black except for a large, white, triangular patch in the center. The inside of the ear is white and well furred. There is a stark contrast on the edge of the ear where the jet-black from the back of the ear meets the white of the inside. The tip of the ear may have a short dense tuft of longer black hair on it, or this feature may be totally absent.

The feet of the bobcat are well furred, and lightly spotted. Its footprints are nearly round like those of a domestic cat. Tracks of a young bobcat can easily be confused with those left by a roaming housecat. An adult housecat's prints, however, are much smaller than those left behind by an adult bobcat. The Canada lynx's considerably larger footprint allows it to stay on top of deep fluffy snow to hunt.

All cats have retractable claws, which pivot up into recesses of the soft padded toes for normal and very quiet travelling. The needle sharp curved claws are on ready call, and can be brought into immediate action by special muscles. Claw marks sometimes show if the cat has taken off on a long leap or climbed a tree. They may also show on a prey victim the bobcat has taken. When taking on a larger animal, the bobcat will hold the larger animal with its sharp claws on the front feet while raking it with its back

claws. Bobcats generally only take on larger animals if they are forced to fight or during periods of severe hunger.

Life Cycle

Mating usually occurs in late March or early April. Male bobcats reach sexual maturity at the age of two years old and females at the age of one. After mating, the males and females separate until the next breeding period. Bobcats are polygamous; the male will mate with more than one female during the breeding season.

Den selection and care of the young are left up to the females. Bobcats are resourceful and intelligent have adapted to a wide variety of habitats. Den sites must provide protection and a food supply for the young. Occasionally, bobcats will use an abandoned building as a den site. Natural den sites include rock crevices, holes in the ground, and fallen trees. In Vermont, most dens are found in crevices of mountainside ledges and occasionally under turned over stumps or blown down trees. The den is simply a dry, protected space large enough to accommodate the female and her kittens for the short time they will use it.

The gestation period (time between fertilization to birth) is about 60 days. Thus, the well-spotted kittens are born generally in late May or early June. In New England, the average litter size is three kittens. They are born with fur and their eyes are sealed, similar to domestic cats. The eyes open in a week to ten days. For the first two weeks, the

kittens stay huddled together. At feeding time they mew and crawl over each other in search of the female who provides them with milk. When not feeding, they sleep. Their activity level increases as they age, and they spend much of their time playing in the den by the time they are three weeks old.

The coat that the kittens' are born with lasts only about two months and then begins to look like that of the adults. The kittens are usually weaned at this time and they begin to venture outside the den. They are curious about their new surroundings and investigate everything when not playing. By midsummer, the kittens travel on short trips with the female. They venture further from the den on their own and may begin "camping" in new temporary dens as they accompany the female on hunting training sessions.

The bobcat kittens have a lot to learn to become proficient enough to survive. Being alert is instinctive, yet the use of these instincts is either taught or learned through mistakes. This training is done by the female and may last into early winter. Tracks of two or more bobcats represent a family group, as adult bobcats are not social and tolerate the presence of the opposite sex only during the breeding season. When breeding season starts, the previous years' kittens are on their own. The young adult bobcats must find their own territory. The home range is reserved by the females for the new litter of kittens. Females will switch home ranges if the old one fails to meet their needs.

Food Items

Bobcats feed on mice, vole, rats, chipmunks, squirrels, snowshoe hares, cottontail rabbits, birds, and deer. White tailed deer are an important food source for northern bobcats in the winter when snow depths allow for easier predation. Throughout the year, bobcats are opportunists and will take almost any small animal. In times when food is scarce, bobcats will eat the carcasses of dead animals, known as carion.

Habits & Habitat

The eastern bobcat can be found in a variety of habitats including coniferous forests, bogs or swamps, and partially forested mountain areas. Particularly in the northeast, rocky ledges are important features to its habitat, as courtship rituals and denning often occur around them. Some factors in the bobcat's selection of habitat seem to be prey abundance and cover. For foraging, the preferred habitat is semi open areas to forested swamps. Recently logged areas and farms often provide food and cover for the bobcat's prey species. The bobcat frequently chooses rock features for a den site but may also use a stump or thicket.

The bobcat likes to wander. It is a crepuscular, most active during dawn and dusk hours. It not only travels on the ground, but will also wade and swim. The bobcat is excellent at climbing and likes to nap in the shade of a large limb. Trees also provide a means of escape. When tracking a bobcat, they often go

out of their way to walk on horizontal poles or logs that are well off the ground. When it has completed its tree walk, the bobcat will return to its earlier line of travel.

The bobcat jumps at or gives short chase to nearly any moving thing at close range, whether for food or fun. Like a domestic cat, it will stalk, sit, and then stalk again towards the prey. The bobcat is not known for long, active chases, preferring only to run short distances. A bobcat's eyes and ears are its greatest assets. It will poke and smell under logs to disrupt chipmunks, mice, and other prey that might be hiding there. The bobcat does not have the sense of smell required to follow a scent trail. Many tales tell of the bobcat's ferocity, this is largely untrue. A bobcat will sometimes attempt to bluff a larger animal or human, however it sometimes trusts its bluff too much.

Abundance

Although it is unclear what the status of the bobcat population was in Vermont prior to European settlement, we know that throughout the 1500s, 1600s, and 1700s bobcats had to compete the wolf, mountain lion, fisher, and marten. In addition, throughout the 1500s-1800s the climate was much more severe in New England than it is now. In fact, 300 years ago Valley Forge, Pennsylvania had weather conditions similar to those experienced in Quebec, Canada today. Because the bobcat is at the northern edge of its range, it is unlikely that it was able to compete effectively with lynx and

mountain lion in those regions of Vermont where deep, fluffy snow conditions were common. It is possible, therefore, that fewer bobcats existed in Vermont before the settlers arrived than are here today.

By the late 1800's, unregulated hunting and habitat changes drove many of the bobcats' competitors to the point of extirpation and bobcat numbers increased as a result. From the 1930's through the 1950's, the bobcat population peaked, mirroring the high deer population that existed in Vermont at the time. Throughout this period the bounty on bobcats resulted an annual take of 200-300 animals. However, as the deer population declined in the 1970's, and as other predators such as the coyote and fisher arrived or were reintroduced, the bobcat population began to decline to the relatively stable level that exists today. It is unlikely that bobcat numbers will ever return to those that existed in the mid 1900's due to the present level of competition from other predators.

It is difficult to estimate the current size of the bobcat population in Vermont. However, recent work is being done through a cooperative effort between the Vermont Fish & Wildlife Department and the University of Vermont to further ascertain information on Vermont's bobcat population. Biologists and researchers have collected more than 100 DNA samples to gain a better understanding of the population's size and genetic structure. Through continued research like this, biologists can have a greater understanding of

the requirements of this species so it can be conserved for future generations of Vermonters.

History

The arrival of the European settlers brought about significant changes in the environment. In Vermont, the extirpation of the wolf, mountain lion, and fisher left a predator void that was quickly filled by the bobcat. In addition, there was a greater abundance of prey species, such as deer and snowshoe hare, resulting from huge acres of brushy habitat created as farms reverted to forestland. The lack of competition, coupled with the increase in food availability, set the stage for increases in bobcat numbers throughout the first half of the century.

During this period there was a bounty on the bobcat. In 1856, the bobcat (listed as the bay lynx) was added to the bounty law by the legislature. Bobcats were hunted for a bounty until 1971. The first regulated season on bobcats began in 1976. Today bobcats again find themselves competing with other predators for food and space. The expansion of coyotes into Vermont and the return of the fisher have made life for the bobcat more challenging and perhaps more similar to the earlier centuries when wolves and mountain lions were around. For example, today, a deer killed in the winter often can no longer be cached by bobcats for days at a time. Within hours, other predators and scavengers arrive to feed.

Survival through the snowy winter periods requires more work and energy

expenditure than in those decades when the bobcat was 'top cat.' However, Vermont's bobcat population is stable and well distributed throughout the state, but it is also quite likely, that there are fewer bobcats in Vermont today than there were in the early part of the 20th century (1930s through 1970s).

Resource Utilization

Bobcats, like most predators, had a negative reputation and, as a result, were persecuted. In recent Vermont history, a ten-dollar bounty was still being paid for killing a bobcat. This was repealed in 1971. From 1971 to 1976, bobcats could be shot or trapped all year long. In 1976, a hunting and trapping season was created to limit the taking of bobcats. The seasons usually run from late October to late February. However, these hunting and trapping seasons have been further restricted depending on the current health of the bobcat population.

Management Efforts

There is a conservative hunting and trapping season that is monitored closely and is not detrimental to the bobcat's population. Annually, an average of 20 to 30 bobcats are taken, including incidentals from road kills or other accident. Fewer animals tend to be harvested in years where the population may already be stressed due to circumstances such as severe winter conditions.

The focus of current bobcat management efforts is on the collection of harvest and biological data to better monitor and protect the species as well as, efforts to identify and conserve important bobcat habitat. The bobcat prefers a variety of habitats, ranging from forests to swamps to mountainous regions. To enhance the quality of this habitat, a range of cover types should be available and should include rocky cliffs, optimum habitat for common prey species, and preferably with early to mid successional species. Emphasis is placed on providing connections or corridors between areas of core habitat with feeding areas. Recently forested areas can provide excellent habitat, as prey populations increase with the opening of the forest canopy. In addition, the maintenance and conservation of undeveloped areas can also be a useful management practice for bobcats.

Illustration by Bob Hines - USFWS