



3. Bobcat

Tawny, tireless, smooth-moving and shy, bobcats are truly beautiful animals. Spotting a bobcat in the wild is a tremendous thrill because few people ever see them. Despite the bobcat's elusiveness, many Pennsylvanians are intrigued by this predator.

Biology

The bobcat, also known as the bay lynx, wildcat, red lynx and swamp tiger, is the state's only feline predator. Its scientific name is *Lynx rufus*. The bobcat is closely related to the Canada lynx, which is not found in Pennsylvania.

Bobcats are efficient, wary predators equipped with senses of sight, smell and hearing. They have four large canine teeth to pierce deeply into prey. Behind their canines they also have sharp cutting teeth. Five retractable, hooked claws on each front foot and four on the rear add to the armament.

Though it is a fierce fighter, a bobcat is not a large animal. A mature bobcat averages 36 inches in length, including a stubby, six-inch tail. This bobbed tail gives the bobcat its name. Adult bobcats in Pennsylvania weigh 18 to 24 pounds, with larger males as heavy as 35 pounds.

Twelve bobcat subspecies are found in the continental United States, with slightly varying pelt coloration and sizes. The bobcats in Pennsylvania have gray-brown fur with dark spots and bars, which are especially noticeable on the legs. The lips, chin and the underside of the neck and belly are white. A ruff of fur extends out and downward from the ears.

The bobcat's rangy, muscular back legs are longer than its front legs. This gives the animal a high-tailed, bobbing gait when it runs. The bobcat is a strong swimmer, although it usually jumps creeks or fords them on fallen logs. The bobcat is also an excellent climber.

Bobcats are mainly nocturnal, but they sometimes venture out in the daytime. Even though bobcats are colorblind and see only in shades of gray, their large eyes are well-adapted to see in the dark. Bobcat pupils are slit-shaped rather than round and can open wide to admit light. Two other eye adaptations that help night vision are abundant



light-sensitive rods and a reflecting layer that makes objects stand out sharply from the background.

Small animals such as mice, woodrats, shrews, squirrels, chipmunks, birds, rabbits and hares form the nucleus of the bobcat's diet. However, like most other predators, bobcats are opportunists. Porcupine, mink, muskrat, skunk, fish, frog, insect and fox remains have also been found in their stomachs. Unlike other forest predators, bobcats are strict carnivores. They do not consume mast or fruit.

Occasionally, bobcats take sick, weak or crippled deer, but predation by bobcats has little or no effect on the size of Pennsylvania's deer herd. Bobcats also scavenge on whitetails that have starved during winter or died of other causes. After feeding on a deer, a bobcat may cover the rest of the carcass with leaves.

Breeding takes place from late February to early March. Male bobcats do not become sexually mature until two years old. Females can breed in their first year, but often do not. During estrus, a male may travel up to 20 miles in a single night searching for a receptive female. Radio telemetry research indicates that the male leaves the female after mating and plays no part in rearing young.

Kittens are born following a 50- to 60-day gestation period. The average litter size is three kittens, but up to five have been observed. Females guard their litters carefully, as an adult male bobcat may try to kill and eat the young. Owls and perhaps foxes may take kittens. A mature bobcat has few enemies other than humans. Bobcats give birth in dens—rock crevices, caves and hollow logs insulated with dry leaves and mosses. Though fully furred, kittens are blind and helpless at birth. Their eyes open after eight or nine days and they are weaned within two months. Kittens stay with their mothers for several more months, learning to hunt and kill prey. They reach 60 percent of their adult weight by winter.

Most wild animals are bothered by parasites, and bobcats are no exception. Fleas, mites and stomach and intestinal worms afflict bobcats. There have been few reports of rabid bobcats.

Some individuals live up to 16 years in the wild. Researchers estimate the age of captured animals by examining their teeth. Each year teeth lay down an outer layer of cementum creating a growth ring, much like a tree, thus making age determination possible from a thin slice of tooth. Bobcats in captivity usually live longer than their wild counterparts. One 30-pound domesticated male reached age 25. Research has shown a high mortality rate among bobcats during their first and second winters, before the young cats have completely mastered hunting skills.

During bad winter weather, a bobcat may shelter under overhanging rocks or in rock crevices. As soon as the storm subsides, the bobcat will be out hunting. If you can find its

tracks in the snow, follow a bobcat on the prowl. Tracks will lead up and down mountains, cross streams (often on logs) and continue for miles. A hunting bobcat trots to a vantage point such as a rock formation, steep hillside, or a low-leaning tree and surveys its surroundings. Rock crevices, stumps, brush piles and thickets will be checked by a bobcat in search of a meal.

Individual bobcat's have territories that are marked with feces, urine and scrape marks. Territories may overlap. Size of the territory depends on availability of food. In areas where food is abundant, the range may be as small as five miles in diameter. In the Western states, a low density of prey forces bobcats to range wider.

Habitat

In Pennsylvania, bobcats thrive in a wide variety of habitats including forested mountains, swamps, and agricultural areas, and suburban woodlots.

Obviously, bobcats will live in areas where they can find ample shelter and food. Bobcats seem to prosper in remote areas near clearcuts. Studies have shown that local small mammal populations increase following clearcutting (due to better food and cover conditions), and apparently bobcats respond to this increased prey supply. Oak leaf roller and gypsy moth caterpillars, insect pests which kill timber, may also indirectly increase small mammal populations by opening up the forest canopy, thus stimulating forest regeneration, and providing downed woody vegetation.

Population Management

Public attitudes concerning predators and the management of the bobcat in Pennsylvania have changed dramatically during the last century. Bobcats, and other predators, were considered vermin during the early 1900s and, in 1916, a \$15 bounty was established to encourage the killing of bobcats in the Commonwealth. More than 7,000 bobcats were killed for bounty from 1916 to 1938; the majority of these were reported during the 1920s. A realization that bounties were ineffective for controlling predator populations resulted in the removal or reduction of bounties on many predators. The bounty was removed from bobcats in 1938, but they remained unprotected and were widely persecuted until classified as a furbearer in 1970. This reclassification empowered the Pennsylvania Game Commission to set regulations to manage bobcat populations. Bobcat populations have continued to expand throughout the Commonwealth since 1970, and a limited number of bobcats are harvested by hunters and trappers under a highly conservative management program.

