

Bobcat, *Lynx rufus*

Status:

***State:* Endangered**

***Federal:* Not listed**

Identification

The bobcat is a medium sized-cat, about two feet tall — larger than a housecat, but much smaller than a cougar or lion. Adult females in NJ generally weigh between 18 and 25 lbs. while adult males can weigh as much as 35 lbs. Their fur ranges from yellowish brown to reddish brown and bears markings that vary from ‘tabby’ stripes to heavy spotting. They possess slightly tufted ears and a short bobbed tail (between three and seven inches long) that is black above at the tip. Generally they hunt both by night and day, although there is evidence to suggest that most hunting takes place at dawn and dusk. They are extremely shy animals that are seldom seen by humans although as numbers have increased in northern parts of the state more and more people are seeing bobcats.



Distribution and Habitat

The bobcat is the most widely distributed native wild cat in North America, and is found in coniferous and mixed forest in the north, swamp and coastal areas in and around Florida, and desert and scrubland in the southwestern United States. It occurs in all 48 contiguous United States with the exception of Delaware. Massive deforestation, development, and changes in agricultural practices among other factors in the late 1800s and early 1900s, led to its decline in some areas of the country by the 1970s, particularly the northeast and midwest. In positive news, a 2008 range-wide status assessment conducted by researchers at Cornell University and the University of Montana reported that bobcat populations are more widely distributed and more abundant across North America than they were in the early 1980s.

Diet

Bobcats prey on rabbits, mice, squirrels, ground-nesting songbirds, turkeys, and even small or sick deer. They only eat about 3 pounds of meat at a time, so if they manage to catch a larger animal, they will drag it to a safe spot, cover it up, and return later to feed again. They have excellent vision and hearing, and use these senses most in hunting. The soft pads on their feet help them sneak up quietly on their prey.

Life Cycle

Bobcats like to den in crevices in rocks, under fallen logs, in thick tangles of vegetation or under the root mass of a fallen tree. They generally breed between February and June, and have a litter size of 1-6 young (2-3 is typical) that are born after a gestation period of approximately 60 days.

The spotted kittens are weaned at about 12 weeks. As the kittens are weaned, they begin eating meat that the mother brings back for them. Later, she will bring live animals (like mice) back to the den, so the kittens can practice hunting. A bobcat becomes independent of its mother at about 10-12 months of age, and may live 12-13 years in the wild.

Management & Research

In New Jersey, the bobcat was historically widespread and common; occurring in all counties, but by the 1970s was considered extremely rare. European settlement brought hard times for bobcats. Early settlers hunted and trapped them for their pelts and changes in land-use occurred that were unfavorable for bobcats. The greatest blow to the once large population was the massive deforestation that occurred here at the turn of the century. As forests were cleared for lumber, fuel and charcoal, and land was converted to agricultural use, bobcat habitat became fragmented. As NJ's human population grew, along with roads and development, bobcat habitat became even more fragmented. Populations became isolated and plummeted. Scattered reports of bobcats being seen or killed on roads continued throughout the 1950s and 1960s, and the species was listed as endangered in NJ in June of 1991. Today, roads and fragmented habitat in NJ prevent extant populations from returning to previously occupied habitat in central and southern NJ.

The NJ Division of Fish and Wildlife conducted a restoration project where 24 bobcats captured in Maine were released in northern New Jersey from 1978-1982. By the 1990's reports of bobcat sightings began to increase. Today, bobcat reports from northern NJ are on the increase. Unfortunately, so are the numbers of bobcats killed by automobiles on our roadways. In 2017, for example, 11 bobcats were confirmed killed by vehicles. Over 70% of bobcats struck by vehicles in New Jersey are less than 2 years old, likely because these young cats are naïve to road hazards and because they often disperse long distances, crossing unfamiliar habitat including many roads, to find a territory of their own.

Since 1991, the Division's management efforts have led to consistent bobcat sightings from an increasingly larger area of northern New Jersey. Most sightings continue to come from Warren, Sussex, Passaic and Morris counties but there have been scattered, recent sightings from Bergen and Hunterdon counties, and in 2017, the first confirmed observations from Mercer county in decades. Bobcats are difficult to study because they exhibit elusive behavior, occur at relatively low densities, and have large area requirements. Yet, monitoring of population characteristics (e.g. size and sex ratio), distribution, habitat availability, and genetic health are essential components needed to develop and implement a recovery plan for the species. In recent years, biologists have used a few different methods in an attempt to gather this vital information.

In February of 1997, biologists conducted a pilot project to determine if bobcats could be tracked using radio telemetry. They captured three adult male bobcats and fitted them with radio collars. Since that time, biologists have used telemetry, and more recently GPS collar data, to track the movements of over a dozen bobcats to determine the kind of habitat they use and the size of their home range. In recent years ENSP has collared bobcats near major roadways in northern NJ to evaluate the response of bobcats to these roads.

In late 2005 ENSP, still looking for an effective way to more broadly survey the bobcat population and its overall genetic health, contracted with Working Dogs for Conservation to acquire Bear, a professionally trained detection dog. Bear effectively located and alerted the biologist/dog handler to bobcat scats (as well as additional species “targets”) over a period of 12 years. DNA analyses of these scats, more specifically the sloughed off intestinal cells in the scats, provide DNA ‘fingerprints’ of individual bobcats, allowing biologists to estimate the bobcat population size for the first time in New Jersey. Systematic surveys conducted in northwestern New Jersey by the dog-handler team between 2007 and 2016 resulted in over 530 bobcat scats representing over 170 different individuals. These data have been analyzed, with the help of DEP’s Division of Science, Research, and Environmental Health, using a statistical method called spatial mark-recapture. Those analyses estimate that there are between approximately 200 and 400 individuals in that region of the state, varying slightly by year.

The DNA data from scats as well as tissue samples we collect from bobcats that have been killed on the road, accidentally trapped, or trapped by ENSP in order to fit with GPS collars, have also been used to evaluate the genetic health of the population in NJ and in relation to surrounding states, as well as to assess the population’s ability to move through the landscape, or its gene flow. These genetic analyses, in addition to remotely triggered cameras, roadkill locations, and the GPS collar data, are enabling biologists to identify potential barriers to gene flow or bobcat movement between areas of suitable habitat in the state.

The threat from habitat loss and fragmentation, changes in land use, the existence of barriers to free movement between suitable habitats and automobile collisions on our busy and abundant roadways will likely limit the growth of NJ’s bobcat population unless we can effectively reconnect areas of suitable habitat and enable them to move safely through the landscape. This understanding of the essential need for a connected landscape, for bobcats, and all of our terrestrial wildlife, was the basis for a project that the Division is leading called Connecting Habitat Across New Jersey (CHANJ), to be released in 2018.

All of the aforementioned research is informing a status assessment and recovery plan for bobcats that spells out what a healthy bobcat population in New Jersey is in terms of abundance, geographic distribution, and genetic diversity. A recovery plan also lays out the actions we need to take to support the recovery, ensuring the population is healthy and stable not only in the near term, but in the long terms as well - 100 years from now.

More information:

DEP podcast about bobcats in New Jersey: www.podbean.com/media/share/pb-vxtyj-6925e2

Short film about bobcat in New Jersey entitled ‘Dogs and Bobcats’: www.creatureshow.com

Learn more about Connecting Habitat Across New Jersey (CHANJ): www.chanj.nj.gov

Report a live bobcat observation (please include photos if you have them!):
www.njfishandwildlife.com/ensp/rprtform.htm

Report an injured or dead bobcat: Call 1-877-WARNDEP (1-877-927-6337)