

Canada Lynx

Lynx canadensis



Canada Lynx / USFWS

Species Description

The Canada lynx (*Lynx canadensis*) is an elusive forest-dwelling cat of northern latitudes. At 30-35 inches long, weighing 14-31 pounds, and with grizzled gray fur, lynx are similar to bobcats (*Lynx rufus*) in size and appearance. The lynx's large, well-furred paws, long, black ear tufts, and short, black-tipped tail distinguish it from the bobcat. With its large paws and long hind legs, the lynx is highly adapted to hunting its primary prey, the snowshoe hare (*Lepus americanus*), in the deep snow typical throughout its range. Lynx have been documented to live up to 16 years in the wild.

Habitat

Landscapes with high snowshoe hare densities are optimal for lynx survival, reproduction, and population persistence. Lynx and hares are strongly associated with moist, cool, boreal spruce-fir forests, where lynx prefer gently rolling terrain. Hares need forests with dense understory vegetation that provides food and cover, especially during periods of deep snow. In the northern contiguous U.S., boreal forests transition to more temperate forest types, where lynx populations cannot be sustained, even though snowshoe hares may still be present. Lynx also need persistent deep, powdery snow, which limits

competition from other hare predators, and denning habitat generally consisting of log piles, windfalls, or dense vegetation that provide security for kittens. Most lynx habitat in the Lower 48 States occurs on public (National Forest, National Park, and Bureau of Land Management) lands, except in the Northeast, where most is on private timber lands.

Distribution

The lynx's range largely overlaps that of the snowshoe hare, and both species are widespread and relatively common in interior Canada and Alaska. Lynx are much rarer in the contiguous U.S., at the southern edge of their range. Although lynx have been documented in 24 states in the contiguous U.S., many of these records occurred in unsuitable habitats and were associated with periodic mass dispersals ("irruptions") of lynx from Canada after cyclic hare population declines. Only a few places in the Lower 48 States have consistently supported lynx populations; these include northern Maine, northeastern Minnesota, northwestern Montana and northeastern Idaho, north-central Washington, and southwestern Montana and northwestern Wyoming. Recently, a few lynx have been documented in northern New Hampshire and northern Vermont.

Additionally, from 1999-2006, lynx captured in Alaska and Canada were released into western Colorado; lynx from this introduced population have dispersed into northern New Mexico and southern Wyoming.

Diet

Snowshoe hares comprise a majority of the lynx diet throughout its range. Lynx prey opportunistically on other small mammals, particularly red squirrels (*Tamiasciurus hudsonicus*), and birds, especially when hare numbers are low. In most of Canada and Alaska, hare populations are cyclic, with dramatic swings in numbers over 8-11 year periods. When



Canada Lynx / © Steve Torbit

hare numbers are low, lynx experience widespread food shortages and many die of starvation or abandon home ranges to search for adequate prey. In the contiguous U.S., hare population cycles are less pronounced or absent entirely, and hare densities in most places are similar to those in Canada and Alaska during the low phase of the cycle.

Reproduction

Lynx typically mate in March and April, and kittens are born from late April to mid-June. Litter sizes, ranging from 1 to 6, and kitten survival correlate with hare abundance. Litters of 4 or 5 and high kitten survival are common when hare numbers are high; when they are low, little or no reproduction may occur and few or no kittens survive to be recruited into the population. Lynx hybridization with bobcats has been documented in Minnesota, Maine and New Brunswick, where male bobcats bred with female lynx to produce fertile offspring with lynx-like ear tufts, intermediate foot-size, and bobcat-like fur.

Population

Lynx likely have never been as abundant in the Lower 48 States as they are in Canada and Alaska because habitat is naturally limited to relatively small areas in the Northeast, Great Lakes, Rocky Mountains, and North Cascade Mountains. In most of Canada and Alaska, lynx populations are cyclic and lag 1-2 years behind hare cycles. Lynx populations in the contiguous U.S. are generally small and isolated from one another (though most are directly connected to populations in Canada), and they appear to function as subpopulations of larger Canadian populations. These subpopulations may depend on periodic immigration from populations in Canada for demographic and genetic enrichment. Because lynx are so rare in the contiguous U.S. and difficult to monitor intensively over time, reliable estimates are not available for all regions, and the size of the total Lower-48 population is unknown but likely small.

Threats

Lynx in the contiguous U.S. were designated a distinct population segment (DPS) and were listed as threatened under the Endangered Species Act in 2000 because regulations governing forest management activities on Federal lands were deemed inadequate, at that time, to conserve lynx and their habitats. Since listing, most Federal land managers throughout the lynx's range, as well as States and several private landowners in Maine, have formally amended management plans to conserve lynx and hare habitats. Recent modeling suggests that climate change is likely to impact lynx in the DPS. Although the timing, magnitude, and consequences of climate-related impacts are difficult to predict, lynx habitats and populations in the contiguous U.S. are likely to be smaller and more isolated in the future and, therefore, more vulnerable to other threats.

More Information

To learn more about Canada lynx and conservation efforts on behalf of the species, please visit the following sites: The Service's Canada lynx webpage: <http://www.fws.gov/mountain-prairie/species/mammals/lynx/> & the Service's ECOS page: <http://ecos.fws.gov/>.

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September 2013



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