Bobcat

Best Management Practices

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Introduction

Bobcats are the most widely distributed wild felid in North America and are found in a broad variety of habitat types. In New England they typically come in two color phases having a pelage that ranges from silver-grey in color to shades of orange and tan. The spotting varies and the coat is lined with brown and black. The under portions of the body are white with black spots. The head is streaked with black and the backs of the ears are heavily marked with black and they have a distinct white area of fur on the back of each ear as well. Unlike lynx the bobcat's short tail has dark bars and a black tip only on the upper side, with white underneath. The ears may or may not be tufted and they have a ruff of fur extending from the ears to the jowels (Nowak 1999). The average weight of an adult male bobcat is 9.6kg (21.1lbs) and females 6.8 (14.9lbs) (Banfield 1987).

General considerations:

These habitat practices presented are specific to Northern New England.

Landowners should be aware that bobcats are wide ranging carnivores and individual landowners may or may not own property large enough to support a reproducing bobcat population. However an individual property may support the home range of a single or multiple bobcats. Bobcats do exhibit strong site fidelity (Litvaitis et al.1987). An ownership may also contain habitat features that are important for supporting the overall bobcat population on the greater landscape. A back corner of a 25 acre woodlot for instance could be a key bobcat den site.

Habitat Requirements:

Bobcats are found in a wide range of habitats but in New England favor mixed deciduous-coniferous or hardwood forests with abundant prey which includes snowshoe hare, cottontail rabbits, other small mammals, turkeys and deer. Brushy, rocky woodlands, dense regenerating stands, lowland spruce and fir, cedar swamps, old roads and fields, all comprise bobcat habitat (Rolley 1987:673). Hemlock stands, beaver ponds complexes and alder shrub lands are all utilized by bobcats. Rocky ledge outcrops may be critical in some portions of their range (McCord and Cardoza 1982:742). During winter bobcats seek out wind free sunny slopes and ledges to take advantage of solar radiation (Mautz and Pekins1989). In New England softwood stands are an important habitat component for bobcat particularly in winter (May

1982). Home ranges of bobcats vary widely with males having larger home ranges than females (Litvaitis et al.1986b, Rolley 1987:674).

Landscape Scale:

Landscapes in New England that support bobcats often consist of a mosaic of softwood and mixed wood regenerating forests, interspersed with dense shrub wetlands, bogs, and swamps. Deriving the ideal specific acres of stand types by size and species class composition for ideal bobcat habitat is difficult. The minimum habitat unit to support a resident population of bobcats will vary by habitat quality, prey availability and is complicated by the variability of bobcat home range size. In general landowners should manage forest composition to increase the softwood component, create young stands conducive for hare, rabbit and other bobcat prey. Landowners should consider the juxtaposition of adjacent ownerships which can form larger blocks of potential bobcat habitat across ownership lines. Collaborative management strategies among landowners should be explored.

Best Habitat Management Practices For bobcat:

Management at a Landscape Level:

1. Retain large blocks of undeveloped forest land and support active forest management.

2. Design harvest management systems for forest stands that use area regulation to create continual patches of softwood and mixed wood regeneration over time. Manage to provide habitat patches located across the landscape consisting of mid –sized regeneration age and size classes preferred by bobcats and bobcat prey. Under an area regulation system a rotation age of 60 years for softwood stands with a 20 year cutting interval will provide approximately one third of the management unit in size classes that will provide dense hare habitat and bobcat cover.

3. Provide travel corridors on the landscape that will enable bobcats to travel to and from habitat patches. Bobcats will use historic pathways as they travel across their home range and these should be indentified through track surveys or from local hunter knowledge. Bobcats prefer dense vegetation for protective travel cover. Alder shrub wetlands, regenerating softwood stands, ledge outcrops and heavily vegetated riparian zones that are bisected by roads can serve as important travel corridors for bobcats traveling from one patch to another.

4. Assess development projects effects to bobcats on both a site specific and landscape scale. Impacts to bobcats from development will vary widely depending on the scale and nature of the development and the resiliency of the habitat. In general discourage residential and industrial projects in optimal habitat that could lead to disturbance of bobcats. Discourage projects located adjacent to prime habitat known to be preferred by bobcats. Consolidate development to minimize direct or indirect impacts. When development does occur provide appropriate corridors and habitat connections within and

adjacent to the development which will allow for the passage of bobcats through the area. Discourage development adjacent to known den sites. Monitor for impacts long term if possible.

5. Protect and actively mange deer wintering areas. Landscapes that support a viable deer population and particularly wintering deer are favored by bobcats. Bobcats will catch and kill deer as well as scavenge on deer carcasses.

6. Maintain and encourage beaver on the landscape. Bobcats are attracted to beaver ponds and associated wetlands. Early successional softwood or mix wood stands located at the edge of beaver ponds provide protective cover and prey for bobcats. These stand conditions can be created in conjunction with an area regulation cutting system with short rotations to regenerate aspen for woodcock or to stimulate aspen regeneration for beaver food.

7. Protect and enhance mast bearing species. Oak, beech, mountain ash and other key nut and berry producing trees and plants are important food sources for bobcat prey species including small mammals, grouse and wild turkey.

8. Abandoned hay fields, pastures and other open habitats on the landscape should be retained in a brushy condition through periodic mowing over time. Large log landings, poorly regenerated forestland, can also contribute to this type of habitat.

Management at a Forest Stand Level:

Large or smaller landowners should also manage for habitat features found at a stand level to enhance bobcat habitat.

1. Use harvest prescriptions that create early successional habitat conducive to snowshoe hare and other small mammals. Ideal habitat will consist of softwood dominated stands 12-35 feet with a high stem density (7000-12000 stems per acre). Where possible focus cutting units on softwood or softwood dominated stands located adjacent to wetlands including scrub shrub swamps. Even aged systems including clear cutting and patch cutting will prove most effective for creating habitat for snowshoe hare and patches of favorable bobcat habitat. Area regulation harvest systems can ensure that a variety of age and size classes of forest stands favorable for bobcat habitat will be present over time.

2. Manage for large coarse woody debris. Bobcats will walk on elevated logs and blown down trees to avoid deep snow depths and likely use these as vantage points for observing and stalking prey. Blown down trees, brush piles and hollow logs offer bobcat potential den locations. Maintaining abundant dead trees during timber harvest and retain patches ¾ acres or more in size of wind throw, or insect damaged trees. Allow selected stands in bobcat habitat to develop in to an older aged condition to promote dead and down woody debris. Focus these acres on high elevation areas, riparian zones and mature inclusions within patches of regeneration.

3. Protect habitat in the vicinity of ledge outcrops, boulders and sheltered south facing slopes favored by bobcats in the winter months. Retain dense cover stands adjacent to ledge outcrops and provide corridors of dense habitat leading to these areas. Large boulders with protective over hangs (also known as glacier erratics) are favored by bobcats for resting, hunting and snow avoidance. Bobcats will also den in rock crevices and holes. Softwood inclusions located around these features will help to ensure continued use by bobcats.

4. Retain softwood inclusions within hardwood stands. Mature hemlock inclusions in particular can be frequented by snowshoe hare attracted to hemlock branch tips clipped by feeding porcupines on the upper tree limbs. Bobcats will also use packed porcupine trails for traveling in deep snow and to investigate porcupine dens. Occasionally bobcats will also prey upon porcupines. Softwood islands can also provide relief to traveling bobcats from deep snow

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