

## Additional Information

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Thanks go to the landowners in our study towns, who gave us access to their land and made this project possible. Thanks also to the local trappers who gave much of their time and experience both of which were invaluable to the study.



For more information, please contact:

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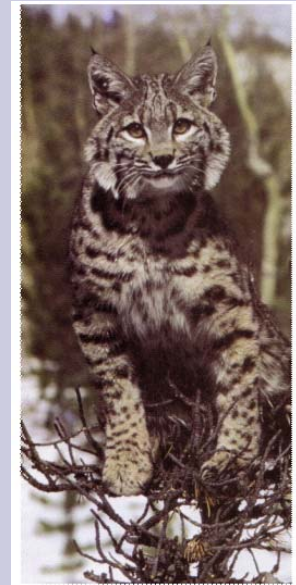
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## Vermont Cooperative Fish and Wildlife Research Unit

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### An Evaluation of Bobcat Habitat Use and Movements in North- western and Central Vermont



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## Project Description

Bobcats are one of the most widely distributed carnivores in the contiguous U.S. In the Northeast, the bobcat is listed as a furbearer, and is harvested under regulated trapping and hunting seasons. The bobcat has been identified as a Species of Greatest Conservation Need by the Vermont Fish and Wildlife Department.

In northwestern Vermont, rocky ledges, wetlands, and corridors appear to be important habitat, based on trapper surveys and sightings. As with other species in northwestern Vermont, bobcat habitat is threatened by the rapid pace at which agricultural and forest lands are being developed, which results in loss of potential breeding habitat and loss of habitat connectivity. Additionally, increased traffic volume associated with increased development may place bobcats at risk. Roads may increase mortality of bobcats through collisions with vehicles, and may affect breeding, behavior, and movement by fragmenting bobcat habitat and by increasing human access to formerly undisturbed areas.

The goal of this study is to evaluate habitat use and movements of bobcats (*Lynx rufus*) in northwestern Vermont in order to direct future conservation actions for this species.



## Objectives and Study Area

1. Examine habitat types and their use by bobcats in Northwestern and Central Vermont.
2. Evaluate the effect of a) landscape fragmentation, c) road density, and d) human density on bobcat habitat use, birth rate, and survival probability.
3. Evaluate bobcat movements in response to road density, road type, and traffic volume.

This study is being conducted in Northwestern VT in representative landscapes extending from the Champlain Valley lowlands to the remote portions of the north central Green Mountains. The most intensive work will be conducted in the towns of Bolton, Richmond, Huntington, Hinesburg, Charlotte, Monkton, Jericho, and Starksboro.

## Methods

Field research will be initiated during the winter of 2004. A total of 15 bobcats will be captured, outfitted with GPS collars, and tracked for 9 months. The GPS collars have both global positioning and radio telemetry capabilities. Collars will record ~30 locations per day for each bobcat, allowing assessment of habitat use and movement. Researchers will use radio telemetry to locate and monitor bobcat dens and den success. The collars automatically release on a predetermined date, at which time the data are collected and downloaded for analysis. The data will be analyzed in a Geographic Information System to determine habitat selection and to identify key habitat needs for bobcats. In addition, movement patterns for bobcat will also be analyzed to determine how roadways and other human induced disturbance effects bobcat behavior.

In the winter of 2005 an additional 15 bobcats will be captured and collared.



## Cooperators



VT Fish and Wildlife Department



US Fish and Wildlife Service



US Geological Survey