

Science News Advisory



U.S. Fish & Wildlife Service



USDA Forest Service

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Scientists confirm hybridization of Canada lynx with bobcats in Minnesota

USDA Forest Service scientists at the Rocky Mountain Research Station's Wildlife Ecology unit's genetics laboratory in Missoula, Montana., discovered through DNA analysis the first scientific evidence of hybridization between the bobcat and Canada lynx in the wild.

Forest Wildlife Biologist Ed Lindquist of the Superior National Forest in Northeastern Minnesota collected tissue and hair samples from 19 cats believed to be Canada lynx. Two of the cats had external physical characteristics resembling both species. Lindquist asked the research scientists to conduct DNA analysis to confirm species identification.

Dr. Michael Schwartz, leader of the genetics laboratory, designed a test to detect hybridization between lynx and bobcats. Analysis of the 19 cats' DNA identified three hybrids. All three were from male bobcats mating with female lynx. This is the first scientifically confirmed hybridization reported in wild populations of these species.

As a result of this finding, the Forest Service has already conducted a DNA analysis of most of the lynx hair samples collected as part of the national lynx survey to help determine if hybridization has occurred elsewhere. So far, no additional instances of hybridization have been detected.

Because so little is known about lynx and lynx ecology, further research is needed to determine what implications these findings may have on lynx conservation.

Dr. Len Ruggiero, leader of the wildlife ecology research unit in Missoula, states that additional analysis is needed to determine the extent of hybridization. Additional hair and tissue samples will be collected where Canada lynx and bobcat populations are known to overlap. DNA samples from bobcats in those areas should also be studied to identify hybrids.

The Forest Service and the Fish and Wildlife Service will continue to use the Lynx Conservation Assessment and Strategy to guide conservation of the lynx on federal lands. These guidelines identify actions that will reduce or eliminate harmful effects or risks to lynx and its habitat.

“We are interested in factors which may contribute to the occurrence of hybridization, what the long-term impacts on the lynx populations may be, and how this may affect future recovery efforts,” Fish & Wildlife Service Regional Director Ralph Morgenweck said, after learning about the hybridization. “The Fish & Wildlife Service will closely follow future studies to determine the extent of hybridization and its impacts on lynx conservation.”

The Department of the Interior’s U.S. Fish and Wildlife Service, which administers the Endangered Species Act, listed the Canada lynx in the United States as threatened in March 2000, in portions of the lower 48 states. A threatened species is one that is likely to become endangered in the foreseeable future in all or a significant portion of its range.

Note to editors: Questions and Answers regarding this issue can be viewed at:
<http://www.r6.fws.gov/endspp/lynx/>

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Questions about the hybrid cats found in Northern Minnesota

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