

# Forestry Environmental Program News

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## **NCASI launches caribou research program**

NCASI has launched a multi-year program to identify options for enhancing the viability of caribou populations in managed boreal forests. The program will focus on information needs related to caribou nutrition identified in NCASI Technical Bulletin No. 939, *State of Knowledge and Analysis of Current Research on Woodland Caribou in Canada*. This Bulletin indicates that very little is known about basic nutritional needs of caribou relative to other important aspects of caribou ecology and management.

Previous research has demonstrated that lichens are an important component of the winter diet of caribou. Lichens are low in protein, however, and may satisfy only a small fraction of total nutritional needs of caribou on an annual basis. It is reasonable to hypothesize that vascular plants consumed during non-winter months play a key role in enabling caribou to produce young and to gain sufficient body fat to survive the winter. There is very little published information about caribou diets during non-winter seasons and even less published information about the potential to enhance caribou reproduction and overall fitness by manipulating silvicultural practices in ways that increase the quality and quantity of available forage.

Objectives for NCASI caribou research include a) defining the fundamental relationship between diet (habitat) and caribou viability; b) evaluating how silviculture can be used to actively benefit caribou populations; and c) building spatially explicit models to enable industry to alter silviculture to optimize potential benefit to caribou on actively managed forest land. The

first objective will be achieved by undertaking experiments using penned (captive) caribou; the second will be accomplished through field studies across Canada on industry-managed forest land; the third (computer-based modeling) component will be undertaken once all field research is completed.

It is expected that research results will lead to methods for quantifying spatial variation in food resources in caribou habitat and thus enhance the ability of managers to identify optimal areas for caribou conservation on a given landscape. In addition, results may lead to the development of silvicultural approaches that enhance the nutritional value of caribou habitat within industry-managed forest lands. Finally, perspective will be gained regarding the hypothesis that the nutritional value of a landscape can affect a local caribou population's resistance to predation pressure.

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## **NCASI will host technical session on forest environment and sustainability in the U.S. South**

The 2008 NCASI Southern Regional Meeting will be held June 24-26 at the Regal Sun Resort in Lake Buena Vista, Florida. Pre-registration materials are available from the NCASI website ([www.ncasi.org](http://www.ncasi.org) - refer to Current/Upcoming Meetings) or by contacting the NCASI Southern