

**Title**

INTEGRATED MODELING OF MOOSE HABITAT AND POPULATION

**Model Forest**

Western Newfoundland Model Forest

**From**

April 1995

**To**

March 1996

**Keywords**

Modeling, Moose, Habitat, Population Dynamics, Forest Management

**Objective**

To develop and test a preliminary set of integrated simulation models that will forecast potential effects of forest and population management on a moose population in the Western Newfoundland Model Forest.

**Description**

Moose is a wildlife species of high ecological and social importance in Newfoundland. One intent of integrated resource management is to accommodate habitat needs for moose during forest management operations. Moose populations are, in turn, managed via harvest regulations. However, nowhere in the process of managing habitat through timber management guidelines and managing populations via harvest regulations are the two processes explicitly linked by specific considerations of relationships between habitat characteristics and population dynamics. The integration between managing habitat and managing harvests (and populations) is incomplete; therefore, no objective means exists to translate the effects of forest operations into population measures.

Few attempts have yet been made to translate the simulated effects of habitat to effects on populations. Most habitat models predict either a habitat suitability index that is translated in a very simple way to a population index, or a measure of habitat carrying capacity. This project will develop simulation tools that will specifically address the missing link between the effects of forest management operations on population numbers of moose. The integrated models will be useful for guiding applied research, and in preliminary exploration of the effects of long-range forest management plans. This work may also benefit related projects by identifying some of the pitfalls of linking habitat and population simulators.

**Reports and Products**

Report not available