

**Title**

NEWFOUNDLAND PINE MARTEN POPULATION MODEL

**Model Forest**

Western Newfoundland Model Forest

**From**

February 1993

**To**

April 1995

**Keywords**

Marten, Modeling

**Objective**

To develop a computer simulation model of marten population dynamics in western Newfoundland.

**Description**

This research is intended to address both a fundamental issue in conservation biology (the role of spatial dynamics), and specific management issues concerning the Newfoundland pine marten. The goal of this research is to develop a general model of pine marten population dynamics and its application to the investigation of various factors influencing pine marten persistence and extinction. The model would then be adapted to western Newfoundland, and used to directly address several of the objectives of the Western Newfoundland Model Forest. This research will also entail the identification of critical habitat requirements for marten, the effects of various management practices on marten persistence, and the integration of marten requirements in an integrated resource management framework. The deliverable products will be a detailed population viability analysis of the Newfoundland marten population, and an interactive computer model for use by resource managers in developing integrated landscape level management plans.

**Reports and Products**

**Extinction Dynamics in the American Marten (*Martes Americana*).** Schneider, R; Yodzis, P. 1993. University of Guelph, Guelph, Ontario. WNMf: 2-209-001, 42p.

**Pine Marten Population Model Users Manual, Teachers Guide & Student Activity Sheets.** Schneider, R (Adaptation for educational use by D Murphy). 1996 Western Newfoundland Model Forest, Corner Brook, Newfoundland. WNMf: 2-209-002, 93p.