

# Winter-Track Study of Blocks 2 and 9, District 19A, Labrador

## Final Report



Submitted to the First Nation Forestry Program (Atlantic Region)  
2004-2005 funding year

Prepared by:

Innu Nation Forestry Office  
Box 119  
Sheshatshiu, Labrador  
A0P 1M0  
P: (709) 497-8155  
F: (709) 497-8396

# 10006-4-001

## 1. INTRODUCTION

The Innu Nation has been actively engaged in forest management within their traditional territory, Nitassinan, for a number of years. As a result a *Forest Process Agreement* signed on January 30<sup>th</sup> 2001, the Innu Nation and the Department of Forest Resources and Agrifoods of Newfoundland jointly developed an Ecosystem Based Forest Management Plan for District 19, which is 7.1 million hectares in size. The plan follows an Ecosystem-Based Planning approach, which requires protection of ecosystem functioning and cultural activities across the range of spatial and temporal scales as the basis for diverse, sustainable economies. The plan identifies ecological protected area networks at three different spatial scales of planning, as well as a cultural protected area networks that ensures sensitive cultural areas and values are protected. At the broadest landscape scale, the combined ecological and cultural protected area network encompasses over 50% of the District. The Annual Allowable Cut for District 19A (2.1 million ha) is estimated at 198,600 m<sup>3</sup>.

### 1.1 Project description

The Innu Nation and the Department of Natural Resources proposed a variable retention trial to determine the effectiveness and ecological value of this cutting pattern. The study areas, Block 2 and Block 9 in Forest Management Unit 2 are scheduled for harvest within 2 years, creating the rare opportunity for a before and after control impact design. Block 2 overlaps with the Ph.D. study area of Neal Simon, Regional Ecologist Department of Natural Resources. Under Neal's Ph.D. study, vegetation and 3 years of songbird abundance data which will serve as the basis of a monitoring program to evaluate the ecological value of variable retention. Songbird point count stations will be resurveyed for several years following harvest treatments. This study was expanded to incorporate mammal and game bird abundances deemed important for the Innu and settler populations through winter track surveys: 1-2 years pre-harvest and several years following harvest.

This project also ties in with past projects funded by FNFP, namely the ecosystem-based planning of block 2 (FNFP project 2003-2004).

## **1.2 Purpose and Objectives of the Project**

The purpose of the *Ecosystem Based Planning of the Frog Pond Block* project is to expand on a pre-existing Innu Nation initiative and to enhance Innu capacity in understanding, promoting and participating in sustainable forest management models in the boreal region.

### **1.2.1 Objectives of the project**

- To enhance the technical capacity of Innu forest guardians in conducting forestry research, and interpreting and applying research results pre-operational planning and silviculture prescriptions, including the design of ecologically and culturally appropriate ecological protected areas networks at the stand level.
- To enhance the understanding of the ecological implications of various silvicultural prescriptions and timber harvesting techniques in the boreal forests of Labrador
- To assist the Innu Nation to continue to provide leadership in developing models of sustainable forest management in the boreal region
- To effectively implement ecosystem-based planning in Nitassinan according to the FMD 19 Strategy Plan adopted by Innu Nation and Newfoundland and Labrador.

## 2. METHODOLOGY

The study areas are Blocks 2 and 9, which are scheduled harvest blocks in the District 19A operating plan. These are located approximately 40 km from Sheshatshiu, and are accessible via the Grand Lake road system. During the winter months, the blocks are only accessible by snowmobile when winter forest harvesting operations are moved to blocks on the Churchill Road.

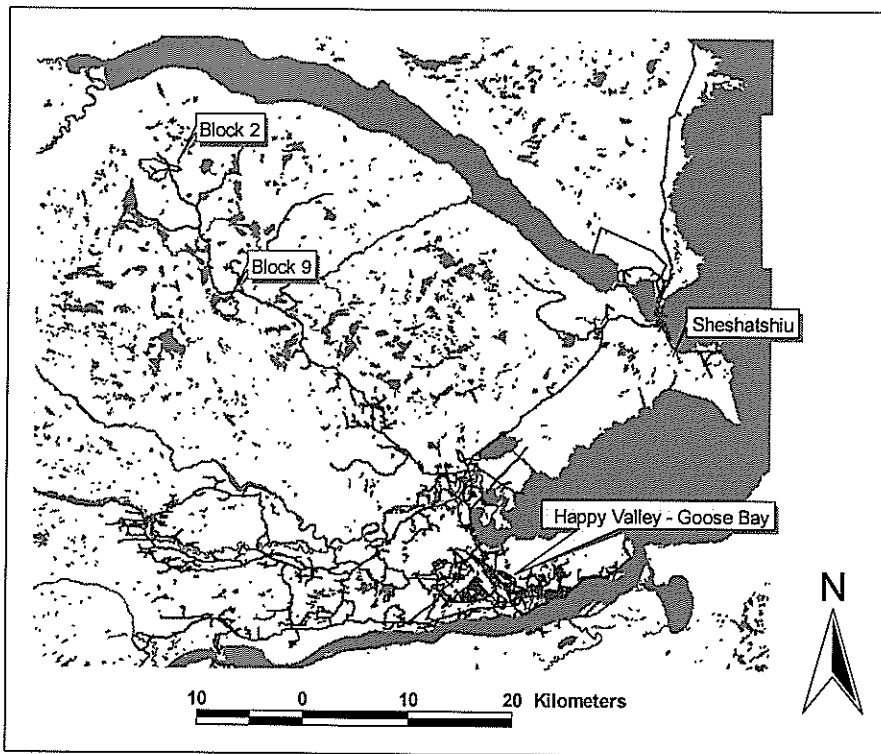


Figure 2.1 Location of Block 2 and 9, on Grand Lake road system

This study was conducted in the winter, in order to be able to recognize animal tracks in the snow. There were 20 transect lines (identified in Figures 2.2 and 2.3 by numbered points) that were distributed in both blocks 2 and 9. The transects were 200m apart, and 400m in length. Within 24 hours of a fresh snowfall, tracks within 5 m of transects were identified by species, and by sex if possible. The researchers also noted

habitat characteristics, conditions, and any other relevant information. Methods were derived from Forsey and Baggs (2001).

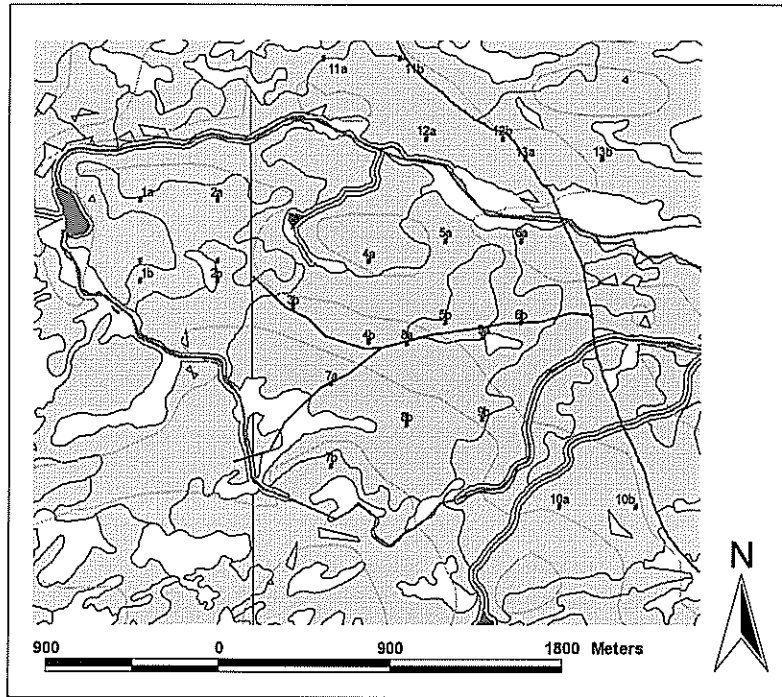


Figure 2.2 Transects in Block 2

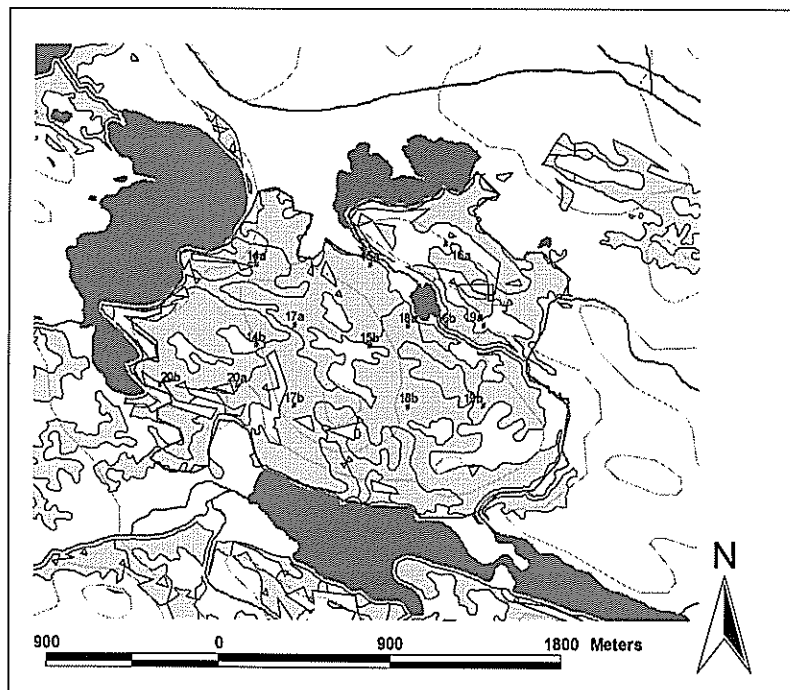


Figure 2.3 Transects in Block 9

### 3. RESULTS

The research team noted a number of animals (*Innu-aimun* words in parentheses), including snowshoe hare (*uapush*), spruce partridge (*innineu*), marten (*uapistan*), otters (*antshauk<sup>u</sup>*), fox (*matshesheu*), squirrels (*anukutshash*), weasels (*shikuesh*) and voles (*tshineshteu apukushish*). Their tracks seemed to be concentrated near a pond and a stream, on the north-east side of the block (Figure 3.1). The data table compiled can be found in Appendix 1, the locations of tracks by species in Appendix 2, and a sample of photographs taken during the study can be found in Appendix 3.

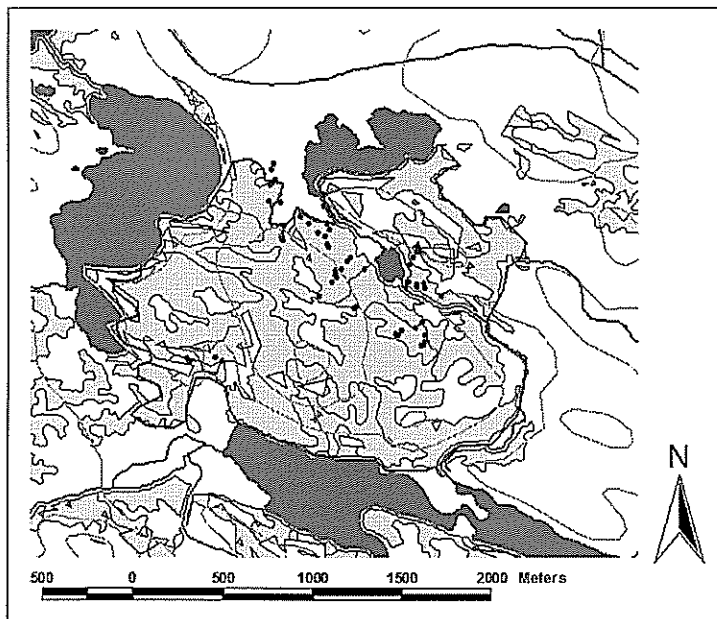


Figure 3.1 Location of animal tracks in Block 9

#### 3.1 Difficulties encountered in the study

As stated in the methodology, during the winter months, when this study was conducted, the blocks are only accessible by snowmobile. Unfortunately, the snowmobiles that we used spent a considerable amount of time in the repair shop (over \$3000.00 in repairs was spent between the two snowmobiles that were available). In fact, this was such an obstacle, that one of the blocks (block 2) was not able to be surveyed. Another problem encountered with block 2 was the snow conditions. Because it is

located near the end of the Grand Lake road system, very few people traveled to it. Therefore the trail had to be broken to access it. This was done on two occasions, and on both occasions the snowmobiles broke down, forcing the research team to wait for parts and the repairs. Despite the fact that Goose Bay is known for snowmobiling, they had trouble finding a parts supplier that could ensure a timely delivery. They often had to wait 2-3 weeks for parts. Some suppliers even told them that they would not have the parts until next season (Winter 2005-2006)!

### **3.2 Research Team**

This study was coordinated by Jean-Pierre (Napes) Ashini, a well known Innu hunter who is very knowledgeable about wildlife and Innu life skills. He also had two youth working with him, Pien Selma and Peter-George Rich. These youth had very good country skills and proved to be quite an asset to the project. Their involvement in the project also fulfilled their conditions for community service. Following the successful participation of Pien and Peter-George, Social Services approached Napes to involve up to ten more youth in similar projects. In future research projects, we hope to involve as many youth as possible.

Because the surveying could only occur within 24-hours of snowfall, this left some time when the research team could not actively survey for wildlife. In these “down-times”, the youth learned about Innu culture, including how to fabricate Innu snowshoes, all on location in Block 9, where the research team spent most of the winter while working on this project.

The research team also hosted a number of people from the Canadian Forest Service while the study was ongoing, including Reginald Parsons (CFS – Corner Brook), Bruce Pike (CFS – Corner Brook) and Janice Campbell (CFS – Fredericton) (Figure 3.3). The objective of this visit was to showcase the project to the CFS and to demonstrate community-led research initiatives.



Figure 3.2 Research camp on Block 9



Figure 3.3 CFS visit to survey camp on Block 9

### Project costs

Wages	Days	rate (\$/day)	total (\$)
Forest Guardians (2)	25	175	8 750.00
Forest Technician	25	200	5 000.00
Forest Planner	10	250	2 500.00
GIS technician	10	250	2 500.00
Research team	80	200	16 000.00
<b>Total:</b>			<b>34 750.00</b>

<b>Expenditures</b>	<b>Details</b>		
vehicle use (truck and snowmobile)	8000 km	0.34\$/km	2 720.00
fieldwork supplies and equipment	3 500		3 500.00
<b>Total:</b>			<b>6 220.00</b>
<b>Project Grand Total</b>			<b>\$ 40 970.00</b>

### **Project contributions**

<b>Funding source</b>	<b>Budget</b>		
	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>
Canadian Model Forest Network	5 000.00		5 000.00
NL Department of Natural Resources		4 000.00	4 000.00
Innu Nation		6 970.00	8 720.00
FNFP	25 000.00		25 000.00
<b>Total</b>			<b>40 970.00</b>

CMFN: 12%  
 NL DNR: 10%  
 Innu Nation : 17%  
 FNFP: 61%

### **Employment Information**

This project created 40 person-weeks of employment for the research team (16 weeks for Napes, and 12 weeks each for the youth). The Innu Nation Forest Office also contributed 14 person-weeks to this project.

### **References**

Forsey,E.S.; Baggs,E.M. 2001. Winter Activity of Mammals in Riparian Zones and Adjacent Forests Prior to and Following Clear-Cutting at Copper Lake, Newfoundland, Canada. Forest Ecology and Management. 145:163-171.

Prepared by:

Valérie Courtois, RPF  
 Innu Nation Forest Planner

## Appendix 1

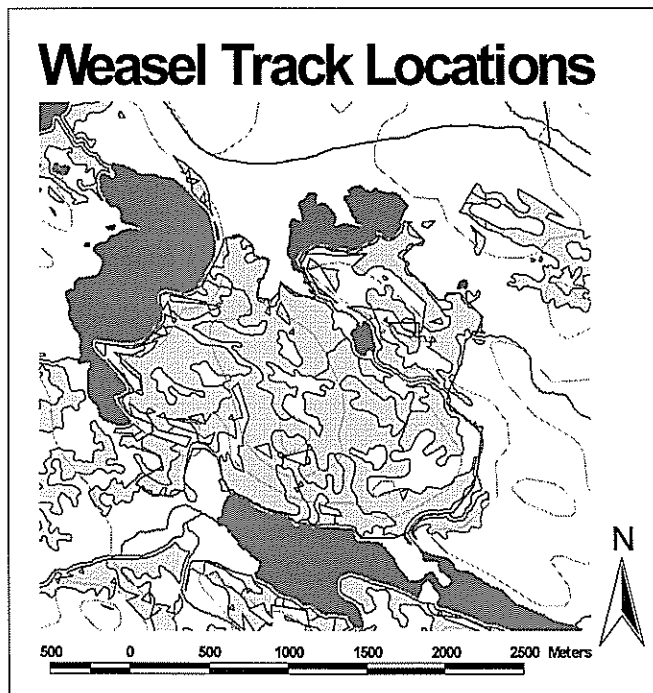
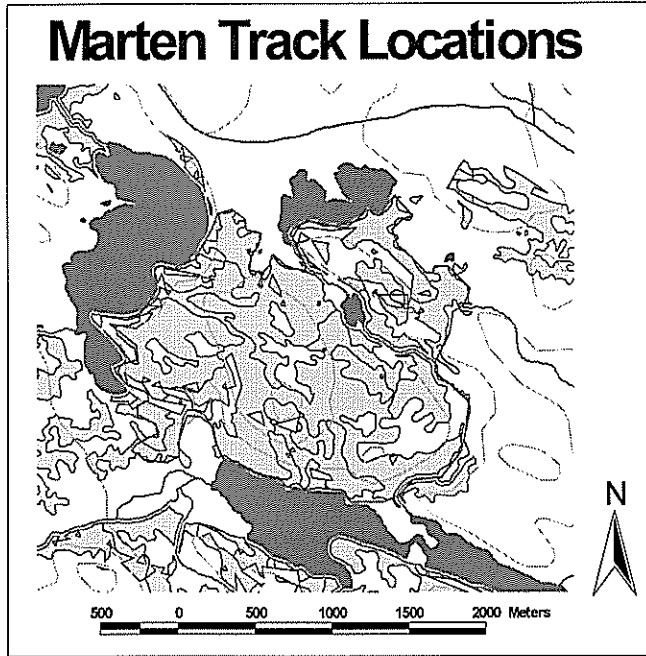
### Data table for Block 9

DATE	TRANSECT	EASTING	NORTHING	WILDLIFE_TRACK
January 17, 2005	19A-19B	353857	5933766	1 rabbit
January 17, 2005	16A-16B	353934	5934185	1 rabbit, 1 squirrel
January 17, 2005	16A-16B	353916	5934155	1 weasel
January 17, 2005	18A-18B	353586	5933883	1 rabbit, 1 squirrel
January 17, 2005	18A-18B	353600	5933891	1 marten
February 22, 2005	19A-19B	353831	5933745	
February 22, 2005	19A-19B	353820	5933747	1 squirrel
February 22, 2005	19A-19B	353932	5933776	1 squirrel, 1 rabbit
February 22, 2005	19A-19B	353971	5933815	1 otter, 1 squirrel
February 22, 2005	19A-19B	354076	5933947	1 squirrel
February 22, 2005		353981	5933995	1 rabbit
February 22, 2005		353973	5934016	1 red fox, 1 rabbit
February 22, 2005		353934	5934008	1 partridge
February 22, 2005		353934	5934000	1 squirrel
February 22, 2005	16A-16B	353880	5934000	1 otter
February 22, 2005	16A-16B	353890	5934025	rabbit
February 22, 2005	16A-16B	353946	5934181	rabbit, 1 squirrel
February 22, 2005	16A-16B	353946	5934209	1 rabbit
February 22, 2005	16A-16B	353647	5934089	1 partridge
February 23, 2005	18A-18B	353387	5933946	1 squirrel
February 23, 2005	18A-18B	353462	5934024	1 squirrel
February 23, 2005	18A-18B	353480	5934056	1 rabbit
February 23, 2005	18A-18B	353489	5934046	1 squirrel
February 23, 2005	18A-18B	353486	5934081	1 partridge
February 23, 2005	18A-18B	353543	5934132	1 squirrel
February 23, 2005	15A-15B	353433	5934217	1 squirrel
February 23, 2005	15A-15B	353447	5934299	1 squirrel
February 23, 2005	15A-15B	353435	5934333	1 rabbit, 1 squirrel
February 23, 2005	15A-15B	353414	5934423	1 weasel
February 23, 2005	15A-15B	353425	5934263	1 rabbit
February 23, 2005	15A-15B	353386	5934285	1 squirrel
February 23, 2005	15A-15B	353327	5934334	1 squirrel
February 23, 2005	15A-15B	353290	5934367	1 rabbit, 1 squirrel
February 23, 2005	17A-17B	353187	5934243	1 squirrel
February 23, 2005	17A-17B	353193	5934317	1 weasel, 1 marten
February 23, 2005	17A-17B	353180	5934446	1 marten
February 23, 2005	14A-14B	353133	5934648	1 vole
February 23, 2005	14A-14B	353125	5934617	1 vole
February 23, 2005	14A-14B	353131	5934551	1 weasel
February 23, 2005	14A-14B	353108	5934450	1 marten
February 23, 2005	20A-20B	352654	5933615	1 rabbit
February 23, 2005	20A-20B	352664	5933604	1 marten
February 23, 2005	20A-20B	352678	5933605	1 squirrel
February 23, 2005	20A-20B	352812	5933621	1 squirrel
February 23, 2005	20A-20B	352852	5933607	1 marten
January 31, 2005	19A-19B	353979	5933706	1 marten
January 31, 2005	20A-20B			no tracks on transect
February 1, 2005	19A-19B	353960	5933687	
February 1, 2005	19A-19B	353974	5933692	1 partridge
February 1, 2005	19A-19B	353978	5933742	1 marten

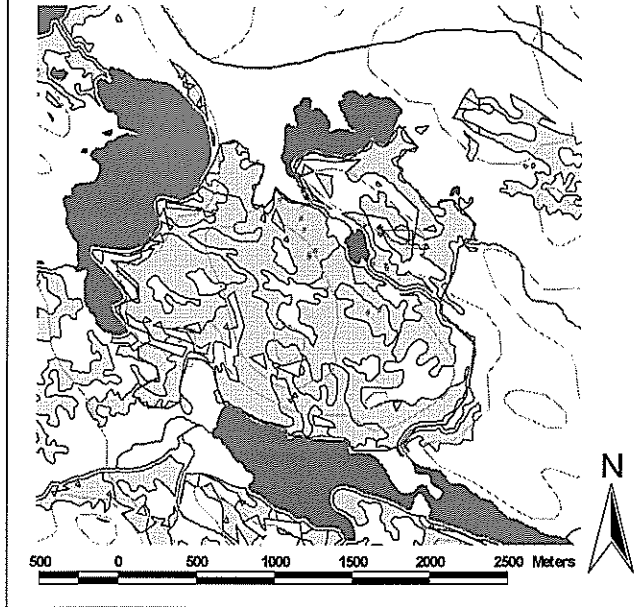
February 1, 2005	16A-16B	353902	5934112	1 weasel
February 1, 2005	16A-16B	353950	5934181	1 rabbit
February 1, 2005	18A-18B	353562	5934154	1 marten
February 1, 2005	18A-18B	353513	5934091	1 rabbit
February 1, 2005	18A-18B	353480	5934073	1 rabbit
February 1, 2005	15A-15B	353419	5934480	1 marten, 1 rabbit
February 1, 2005	15A-15B	353437	5934405	1 rabbit
February 1, 2005	17A-17B	353445	5934206	1 rabbit
February 1, 2005	17A-17B	353185	5934254	1 marten
February 1, 2005	14A-14B	353143	5934560	1 rabbit
February 1, 2005	14A-14B	353120	5934540	1 red fox

## Appendix 2

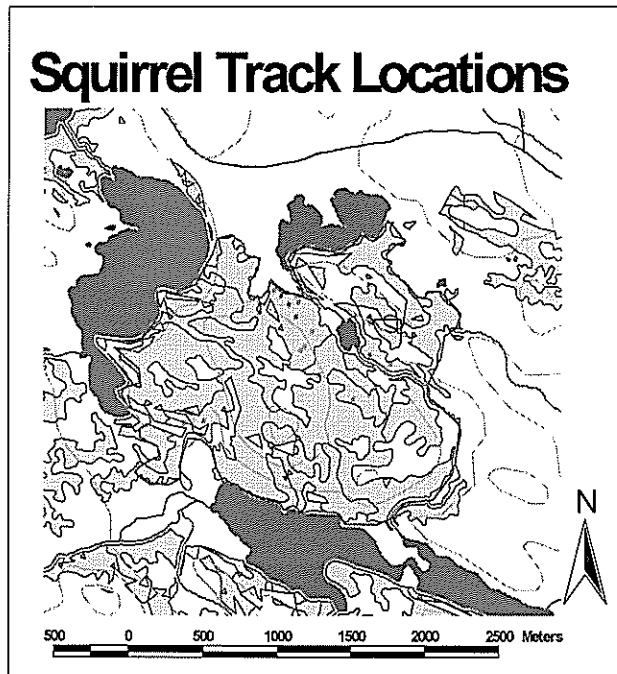
### Location of tracks by species surveyed



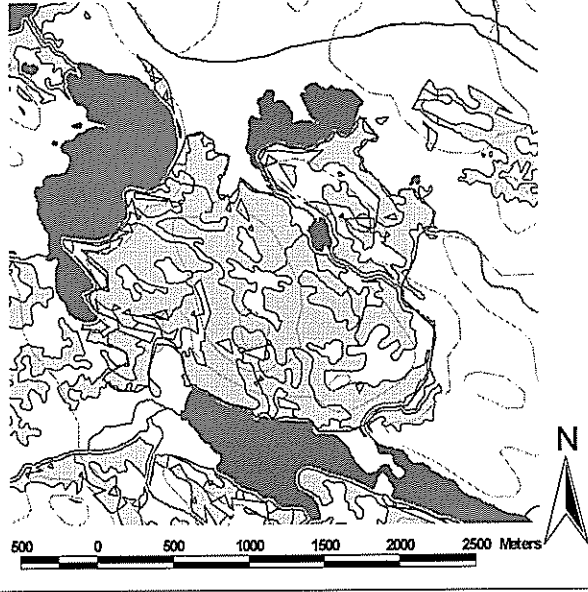
## Snowshoe Hare Track Locations



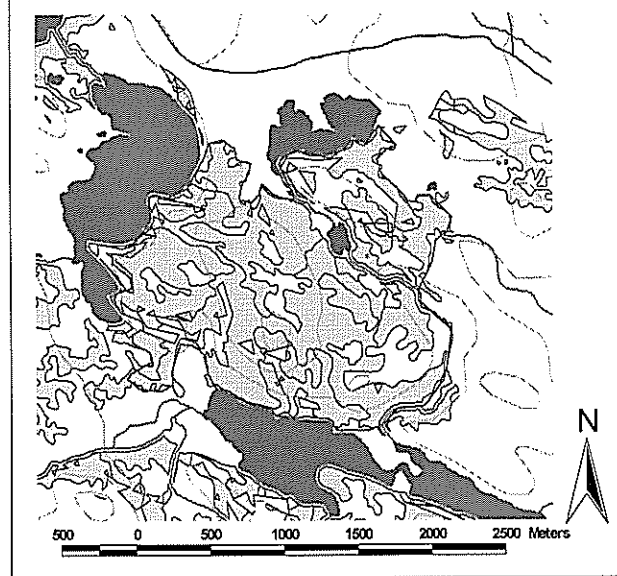
## Squirrel Track Locations



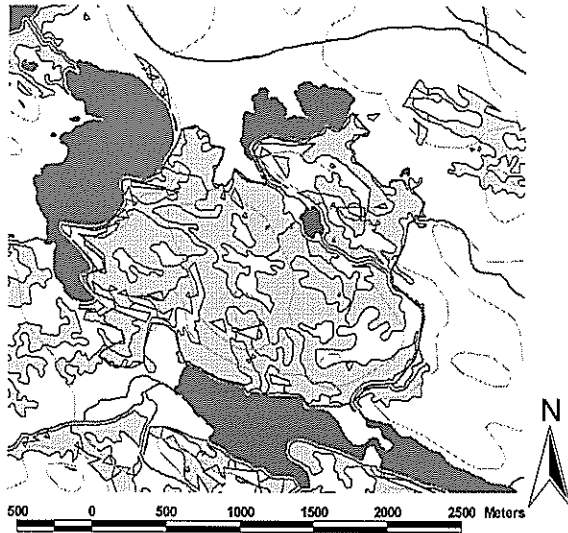
## Otter Track Locations



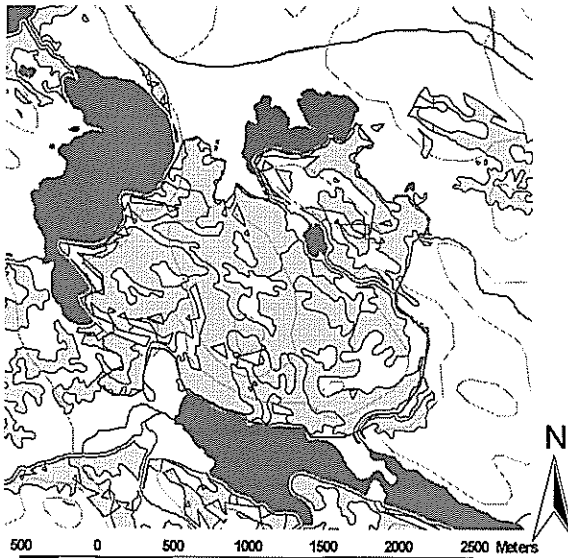
## Red Fox Track Locations



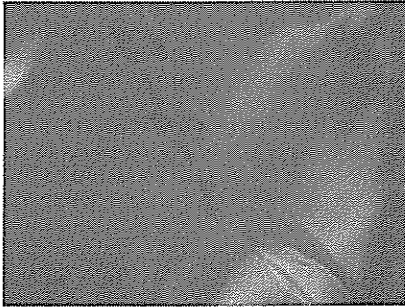
### Spruce Partridge Track Locations



### Vole Track Locations



**Appendix 3**  
**Photographs of Tracks Taken by Research Team**



**Otter**



**Marten**



**Squirrel**



**Weasel**



**Snowshoe hare**



**Partridge**