

**Newfoundland and Labrador  
Small Mammal Monitoring Network  
2007 Season Report**

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## Newfoundland and Labrador Small Mammal Monitoring Network 2007

Recognizing the importance of small mammals in northern ecosystems, a number of interested organizations across the province worked together to establish a network of small mammal monitoring sites in 2007. The Wildlife Division worked in partnership with the Provincial Forestry Division, Institute for Environmental Monitoring and Research, Jacques Whitford Limited, Innu Nation, Métis Nation, Nunatsiavut government, Conne River Band, and the Atlantic Canada Conservation Data Centre.



### Project goals:

- 1) Identify species and the distribution of species across the province
- 2) Develop population trend data
- 3) Track changes in species distribution
- 4) Establish a reference collection of species in the province
- 5) Disease monitoring and early detection
- 6) Create a database to contribute toward general status information, tracking of invasives, and research and management projects
- 7) Establish consistent data collection methodology across province

Small Mammal Monitoring partners set up trapping grids in their local areas representative of typical habitat for that area. Site preference was given to areas that would remain free from disturbance for at least 10 years. A grid of 8 lines with 15 stations on each line was set at each site. Two snap traps were placed at each station providing a total of 240 trap nights/station/day. Stations were run between August 15 and September 30 – over 3 consecutive nights for a total of 720 trap nights/station/year.

Sites on the island represented primarily forested areas including mature, regenerating, and PCT stand types. Other habitats selected included bog, and barrens. Labrador habitat data is pending.

A total of 563 small mammals were trapped in 14 sites on the island (Fig. 1, Table 1) and over 650 small mammals were trapped in 9 sites in Labrador (Fig. 2, Table 2). In the laboratory specimens were identified based upon dentition and morphology. All information was entered using a database created by The Atlantic Canada Conservation Data Centre (AC CDC). Some specimens were retained for the purpose of creating a reference collection of prepared skins and skulls. Remaining specimens were then sent to Provincial Animal Health for

disease and parasite testing and a few contributed toward a scat analysis project. Table 3 gives a summary of species captured by region. One of the immediately evident results of this work has been a better understanding of the distribution of the introduced Red-Backed Vole to insular Newfoundland, now being found just north of Main River and east out to Bishop's Falls.

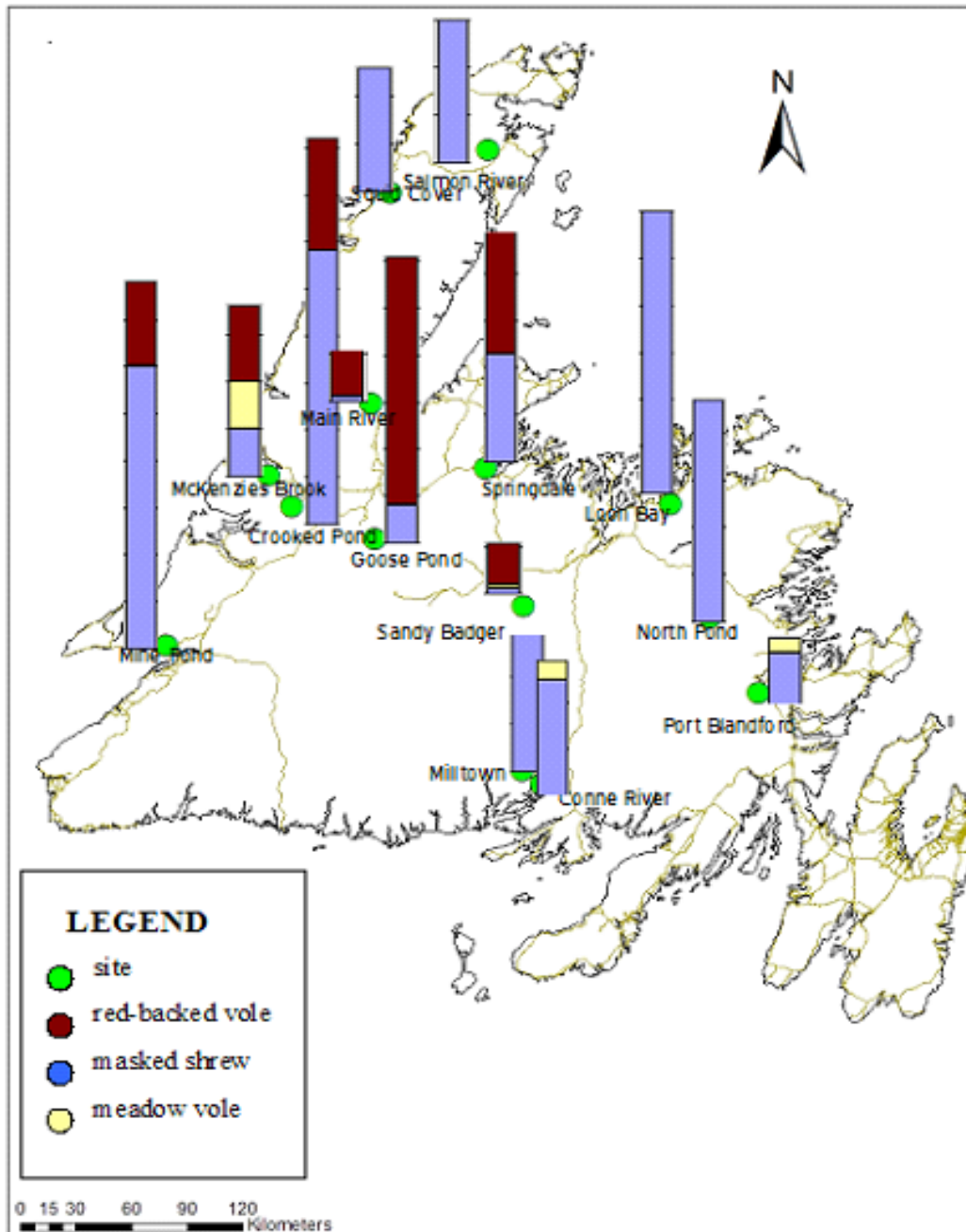


Fig. 1: Small mammal sites in insular Newfoundland (2007) with proportionate graphs of species captured at each site

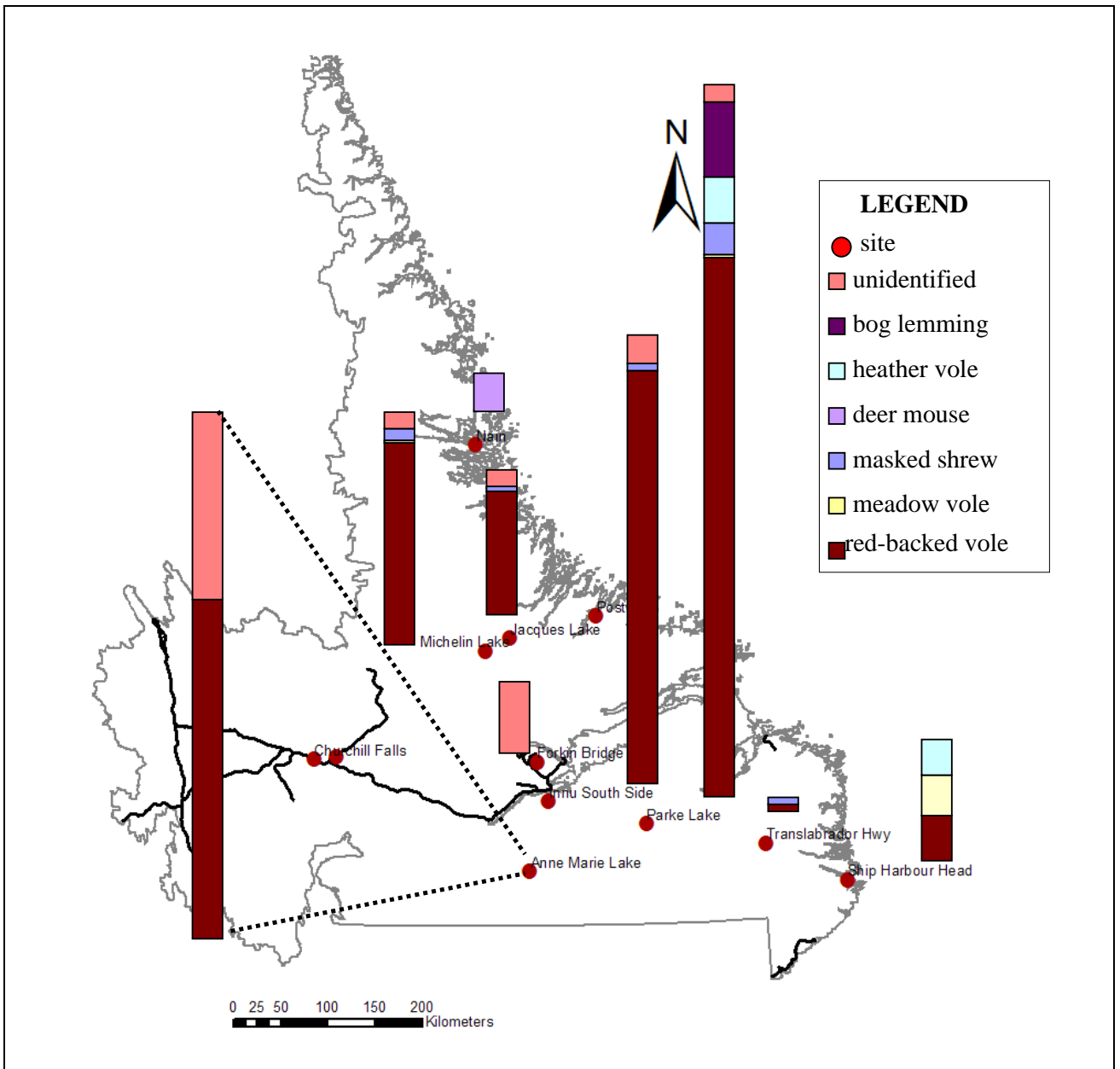


Fig. 2: Small mammal sites in Labrador (2007) with proportionate graphs of species captured at each site (note: Postville and Churchill Falls data not available at this time)

Table 1: Small mammal captures by site for 2007 NL Small Mammal Monitoring Network (island portion)

Site	Red-backed Vole	Meadow Vole	Masked Shrew	Total
Conne River	-	4	25	29
Crooked Pond	24	-	58	82
Goose Pond	53	-	8	61
Loon Bay	-	-	60	60
Main River*	10	-	1	10
McKenzies Brook	16	10	11	37
Milltown	-	-	29	29
Mine Pond	18	-	60	78
North Pond	-	-	47	47
Port Blandford	-	3	11	14
Salmon River	-	-	30	30
Sandy Badger	9	1	1	11
Springdale	26	-	23	49
Squid Cove	-	-	26	26

\* late trapping season

Table 2: Small mammal captures by site for 2007 NL Small Mammal Monitoring Network (Labrador portion)

Site	Red-backed vole	Meadow Vole	Masked Shrew	Deer Mouse	Heather Vole	Bog Lemming	unidentified	Total
Anne Marie Lake	96	--	--	--	-	-	53	149
Forkin Bridge		-	-	-	-	-	20	20
Innu South Side	117	-	2	-	-	-	8	127
Jacques Lake	35		1	-	-	-	5	41
Michelin Lake	57	1	3	-	-	-	5	66
Nain				13				13
Park Lake	174	1	11	-	15	24	5	232
Ship Harbour	13	11		-	10	-	-	34
Trans Lab	2	-	2	-	-	-	-	4

Table 3: Small mammal captures by species and region for the 2007 NL Small Mammal Monitoring Network

Family	Scientific Name	Common Name	Insular Newfoundland Captures 2007	Labrador Captures 2007	Area of Known Occurrence*
Dipodidae	<i>Napaeozapus insignis</i>	Woodland Jumping Mouse			LB
	<i>Zapus hudsonius</i>	Meadow Jumping Mouse			LB
Muridae	<i>Clethrionomys gapperi</i>	Southern Red-backed Vole	X	X	NL
	<i>Clethrionomys glareolus</i>	Northern Bank Vole			NF
	<i>Dicrostonyx hudsonius</i>	Labrador Collared Lemming			LB
	<i>Microtus chrotorrhinus</i>	Rock Vole			LB
	<i>Microtus pennsylvanicus</i>	Meadow Vole	X	X	NL
	<i>Mus musculus</i>	House Mouse			NL
	<i>Peromyscus maniculatus</i>	Deer Mouse		X	NL
	<i>Phenacomys ungava</i>	Eastern Heather Vole		X	LB
	<i>Rattus norvegicus</i>	Norway Rat			NL
	<i>Synaptomys borealis</i>	Northern Bog Lemming		X	LB
Soricidae	<i>Sorex cinereus</i>	Masked Shrew	X	X	NL
	<i>Sorex hoyi</i>	Pigmy Shrew			LB
	<i>Sorex palustris</i>	Water Shrew			LB
Talpidae	<i>Condylura cristata</i>	Star-nosed Mole			LB

\* NL: Newfoundland and Labrador, NF: insular Newfoundland, LB: Labrador

This is a long-term project slated to continue for at least 10 years, and will likely provide many other research opportunities. Expected future results will include small mammal distributional and trend information, results from disease testing and other research collaborations as they develop.

### Data Compilation Project

Another initiative that developed at the same time as the Small Mammal Monitoring Network was a Small Mammal Data Compilation Project, funded by the Wildlife Division and the Institute for Environmental Monitoring and Research. This project compiled all known small mammal data sources from 1960-2005. Compiled information will eventually be available on-line in the form of annotated bibliographies.

Support and partnerships developed in the first year of the Small Mammal Network have been excellent and these partnerships are expected to continue and expand into the future. Many thanks go out to all district offices and individuals who ran small mammal sites in 2007. Thanks goes out to: Jonathan Sharpe, Shelley Garland, Jessica Belbin, Kim Morgan, Kevin Robertson, Charles Gaulton, Shawn Avery, Tyson Haggett, Justin Wellman, Matthew Wells, Rebecca Dodd, Seldon Miller, Tom Burry, Ryan Knott, R. Squires, Harvey Thomas, L. Kinden, Rick Clarke, Terry Kelly, George Downey, Peter Crowley, Grant White, Brad LeDrew, Colin Davis, Bob Calloway, Mat Simms, K. Hewlett, Mike Drew, Craig B., Craig Benoit, Truman Porter, G. Boyd, Mark Breon, Woodrow Rumbolt, Terra Lynn Plowman, Blair Reardon, Roy Flynn, Joe Gillingham, David Parsons, Leo Keadel, Meherzad Romer, Leah Soper, Tony Parr, Frank Phillips, Guy Playfair, Pat Ashini, Natalie Jette, Apenom Pone, Peter Mckay, Trent Parr, Craig Dyson, Jim Martin, Ted Pardy, Jennifer Mitchell, Perry Trimper, and others.