

Cape Breton Marten Augmentation Project :

Final Report, 2009

Nova Scotia Department of Natural Resources, Wildlife Division. Kentville NS.



Summary

This (2008-2009) was the second year of concentrated effort to conduct a fall live trapping session in northern New Brunswick. Most of the trapping gear (traps and holding pens) had been left in NB the previous year so it was only a matter of getting contracts for two trappers to do the work and provide food and accommodations.

Ed Cottreau of NB and Paul Tufts of Nova Scotia were contracted to live trap marten in northern New Brunswick from 19 November to 6 December 2008. Trapping was very successful with a total of 48 marten (m=26, f=22) live trapped in NB and released in Cape Breton. In addition, two animals live trapped died in NB, two animals died in captivity while in CB, and one was euthanized in CB and sent for rabies testing. Ten marten were released in Cheticamp, six in North River, nine on Crowdis Mountain, five along the Kelly Road, one on Spring Road, five at Black Brook, ten at Glentosh and two near the Trout Brook Wilderness Area. All release sites are in, or in close proximity to the proposed release sites indicated in the Augmentation Plan.

All marten were PIT tagged, weighed and had DNA (hair) samples collected for later analysis if required. Nine male marten were radio collared to provide some information on movement and habitat use. These animals continue to be monitored when air support (helicopter) is available.

Live-trapping will continue in the fall of 2009 with a goal of 30-50 marten being transported to CBI.

AUGMENTATION OF AMERICAN MARTEN ON NORTHERN CAPE BRETON ISLAND

PROGRESS REPORT 2008

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Background

The Cape Breton population of American marten has been listed as endangered under the NS Endangered Species Act since 2001. Following genetic testing (Johnson et al. 2005), habitat evaluation (Habitat Subcommittee 2004) and development of an augmentation plan (Austin-Smith 2006), the NS Marten Recovery Team (2006) recommended the augmentation of the Cape Breton marten population by up to 150 animals over a period of 3-5 years.

This report documents efforts taken in 2008-2009 by Parks Canada, NS Dept Natural Resources and the Unama'ki Institute of Natural Resources, with support from the New Brunswick Department of Natural Resources and the Trapper's Association of Nova Scotia, on behalf of the Nova Scotia Marten Recovery Team to improve the viability of American marten (*Martes americana*) on northern Cape Breton Island by augmenting population numbers.

Results

Relocation

Following the protocols set out in the augmentation plan (Austin-Smith 2006), relocations involved trapping and holding animals in northern New Brunswick until there were enough to ship; obtaining clearance to move them between provinces; moving them by truck and helicopter to NSDNR facilities in Cape Breton for tagging and radio-collaring; and finally to holding pens at release sites where they were held and fed for three to five days prior to release.

This past year's trapping session occurred in Northern New Brunswick from 15 November to 5 December 2008, when Ed Cottreau a fur harvester from NB, and Paul Tufts a fur harvester from NS were contracted to conduct the live trapping session. Mr. Cottreau and Mr. Tufts stayed in a remote camp (Island Lake Lodge) one hour west of Bathurst, from which they set and checked traps daily. The Lodge was selected based on its remoteness to human habitation, and its closeness to Mr. Cottreau's trap-line. During this trapping session a total of 51 animals (20 male, 18 female) were live captured during ~900 trap-nights (~ 17 Trap-nights per animal). Two other marten (sex unknown) died in traps and were turned in to the NB DNR office in Bathurst. Trappers were each paid \$100/day and \$75/marten for a total of \$11,425 for the live trapping session.

While being held in NB, a student was on hand to ensure that the marten were provided with beaver meat, jam, gatorade and given sulcrate.(sucralfate). Sucralfate produces an adherent and barrier protecting the potential ulcerogenic properties of acid, pepsin and bile.

Due to weather conditions and maintenance issues helicopter transport was not available until the 26th November and 3rd of December when Air Services provided air support and transported 8 and 10 marten respectively. Several trips were made by truck to pick up and transport marten to Cape Breton. The marten were placed in travel boxes stuffed with straw, and provided food and water during the trip. All trips were conducted during the day when marten were in a more restful state and when

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drivers were well rested.

The males trapped weighed from 560 to 900 g (mean = 715 g; s.d = 83.6 g), the females weighed 300 to 540 g (mean = 448; s.d. = 68.2 g). Three females escaped and one died in New Brunswick giving a total of 34 animals transferred to Cape Breton. Of these 34 one male died in transport, one female escaped at Baddeck, two males and one female died prior to release. This is a mortality of five animals out of the 38 originally trapped or 13%. The remaining 29 animals were all PIT tagged, weighed and hair samples were taken and labelled for later DNA identification if required. Release sites included Black Brook, Paquette Lake and Cheticamp River in Cape Breton Highlands National Park and the provincial Trout Brook Wilderness Area (Table 3).

Public Engagement

The involvement of the Nova Scotia Trapper's Association in providing advice and assistance in trapping animals in New Brunswick and of the 1st Whycocomagh Scout Troop and 1st Gaspereau Scout Troop in constructing nest boxes for the live traps and the holding pens used at the capture and release sites have been invaluable to this project.

The releases at Black Brook were well attended by the media and generated much (Tables 4 & 5) interest and coverage. These releases were also attended by the environmental club from the local highschool and by interested park staff.

Monitoring

Five of the six radio-collared animals released in November-December have been re-located during telemetry flights on 11 and 19 December 2007 and 17 January 2008 (Figure 1). Aerial telemetry tracking will continue subject to the availability of NSDNR Flight Services machines with observers from NSDNR, Parks Canada and UINR.

One animal (presumably uncollared and released from Paquette Lake) was sighted by park staff on North Mountain in early January. A ground tracking program is underway at CBH to determine suitable locations for deploying bait/feeding stations and hair snag traps in February.

Partnerships

The Cape Breton Island American Marten Augmentation Project is a cooperative project being undertaken by Nova Scotia Department of Natural Resources (Wildlife Division), Parks Canada and the Unama'ki Institute of Natural Resources, with the generous support and assistance of the New Brunswick Department of Natural Resources and the Nova Scotia Trapper's Association.

The project is being undertaken on behalf of the Nova Scotia Marten Recovery Team, comprising representatives from Nova Scotia Department of Natural Resources, Parks Canada, Unama'ki Institute of Natural Resources, Canadian Forestry Service, Storaenso Forestry Products, Nova Scotia Trappers Association, Nova Forest Alliance, Wildlife Conservation Society Canada and Acadia University.

Table 1. New Brunswick Marten Live Trapping: Fall 2008

Date	# Of traps	# Marten	Sex	Other	Notes	
v. 19	No	29	0	***	FS	FS released
v. 20	No	31	2	F	***	***
v. 21	No	49	4	2M, 2F	2 FS	FS released
v. 22	No	51	2	1M, 1F(?)	1 FS	FS released
v. 23	No	51	0	0	0	2 females escaped from holding cage in NB. No trap check
v. 24	No	55	3	1M, 2F	***	***
v. 25	No	56	4	3M, 1F (?)	***	***
v. 26	No	56	8	5M, 3F	***	1F escaped during transfer
v. 27	No	56	4	3M, 1F	1 FS 1 CJ 1 F	Released Released Released
v. 28	No	49	2	1M, 1F	***	1F mortality
v. 29	No					Mortality from Nov. 28 turned in to NB DNR Bathurst
v. 30	No	50	4	2M, 2F (?)	1FS 1RS	FS dead RS released
c. 1	De	50	***	***	***	No trap check
c. 2	De	44	2	1M, 1F	1RS	RS released
c. 3	De	45	1	1F	1RS	RS released Pulled 12 traps
c. 4	De	33	***	***	***	No trap check – snowed in
c. 5	De	33	***	***		Pulled 13 traps
c. 6	De	20	2	2F		Pulled all traps
tal	To	758	38	19M, 19F *		

* Sex breakdown determined in the field

FS = Flying Squirrel

RS = Red Squirrel

CJ = Canada Jay

F = Fisher

Table 2. Marten Released in Cape Breton

Sex	Weight	Tag #	PIT	Site	Release	Age	Sex	Release Date	Collar Frequency
M	560 g	1223A	14367	Brook	Black	409	39	2 3941	148.54
F	390 g	165A	14417	Brook	Black	409	39	2 3941	
F	300 g	8392A	14332	Brook	Black	409	39	2 3941	
F	380 g	8392A	14332	Brook	Black	409	39	2 3941	
M	560 g	1633A	14613	Brook	Black	409	39	2 3941	
M	680 g	1111A/ 1491A	14626 14613	Brook	Black	413	39	8 3941	
M	740 g	7321A	14612	Brook	Black	413	39	8 3941	
M	700 g	9315A	14624	released	not	ortality	M	0 3978	
F	450 g	8390A	14626	Baddeck	Escaped	413	39	8 3941	
M	670 g	1195A	14626	Brook	Black	413	39	8 3941	
F	470 g	2672A	14621	Brook	Black	413	39	8 3941	
M	???	8366A	14625	Brook	Black	413	39	8 3941	151.441
M	655 g	1694A	14631	Lake	Pacquet	413	39	8 3941	151.7
F	530 g	4651A	14632	released	not	ortality	M	1 3978	
M	710 g	9131A	14616	Lake	Pacquet	413	39	8 3941	
M	780 g	2265A	14632	Lake	Pacquet	413	39	8 3941	
F	470 g	6694A	14622	Lake	Pacquet	413	39	8 3941	
M	770 g	7752A	14626	Lake	Pacquet	413	39	8 3941	
M	750 g	5132A	14615		Cheticamp	415	39	8 3941	
M	900 g	7571A	14627		Cheticamp	415	39	8 3941	
M	860 g	9543A	14612		Cheticamp	415	39	8 3941	151.419
M	750 g	5761A	14631		Cheticamp	415	39	8 3941	

F	540 g	8225A 14623	Cheticamp	415 39	8 3941	
M	660 g	2293A 14631	released not	ortality M	4 3978	
M	690 g	5496A 14623	Cheticamp	418 39	1 3942	
F	480 g	7355A 14615	Cheticamp	418 39	1 3942	
M	790 g	63*790 102*5	Cheticamp	418 39	1 3942	
M	690 g	42*586 102*5	Cheticamp	418 39	1 3942	
F	450 g	64*819 102*5	Brook Trout	420 39	5 3942	
F	500 g	43*618 102*5	Brook Trout	420 39	5 3942	
M	760 g	43*370 102*5	Brook Trout	420 39	5 3942	151.62
M	710 g	73*304 102*5	Brook Trout	422 39	5 3942	148.52
F	410 g	41*116 102*5	Brook Trout	422 39	5 3942	
M	630 g	ty Mortali				

Table 3. American Marten released in northern Cape Breton fall 2007

Site	Release	Release Date	Males	Females	No Collars [Freq Mhz]
Brook	Black	24 Nov 2007	2	3	1 [148.540]
		30 Nov 2007	4	1	0
Lake	Paquette	30 Nov 2007	4	1	2 [151.441, 151.700]
River	Cheticamp	03 Dec 2007	4	1	1 [151.419]
		06 Dec 2007	3	1	0
Brook	Trout	10 Dec 2007	2	3	2 [151.620, 148.520]
Totals			9	10	6

Table 4. Print media coverage of marten release in northern Cape Breton November 2007

Date	Publication	Author	Title
200 6 July 18	Cape Breton Post	Chris Hayes	American martens catlike creature will be released into Cape Breton Wilderness
200 7 Nov 26	Cape Breton Post	Chris Hayes	American martens to be released in national park
200 7 Nov 27	Cape Breton Post	Chris Hayes	Marten Up. Five American martens to be released in Cape Breton today
200 7 Nov 26	Halifax Chronicle Herald	Aleena MacDonald	Project underway to help boost numbers of martens in NS woods
200 7 Nov 30	Halifax Chronicle Herald	Aleena MacDonald	Endangered martens poke around Highlands. Recovery team rebuilds population as other critters chatter in protest
200 7 Dec 7	Le Courrier de la Nouvelle Ecosse		Rétablissement d'une population de martres sauvages
Summer 2006	UINR Marten Vol 2 Issue 2		Marten Comeback
Winter 2007	UINR Marten Vol 3 Issue 4		Marten Matchmaking
Spring 2008	Creating a Culture of Conservation: Ecological Integrity in Canada's National Parks		TBD

Table 5. Broadcast media coverage of marten release in northern Cape Breton November 2007

Date	Broadcaster	Details
200 7 Nov 26	CJLS-AM, Yarmouth; CIGO-FM, Port Hawkesbury; CKEC-AM, New Glasgow; CJFX-AM, Antigonish; CKNI-FM, Moncton; CJLS Yarmouth; CKDH-AM, Amherst; CHFX-FM, Halifax.	“Hunted near extinction, efforts are underway to repopulate the American marten in the Cape Breton Highlands....” Length 00:00:18 to 00:00:25
	CKTO-FM, Truro; CKTY-FM, Truro;	News Item - “A recovery project to re-populate the American Martin in the Cape Breton Highlands will begin later this week. ...” Length 00:00:15 to 00:00:32

200		CTV Atlantic	Live at Five spot by Randy MacDonald
7 Nov 28			
200		CBC Radio One - Maritimes. Radio	Spot by Dave Atkinson. Length 00:05:55
7 Dec 04	Noon		
200		CBC TV	Land And Sea
8 Mar 30			

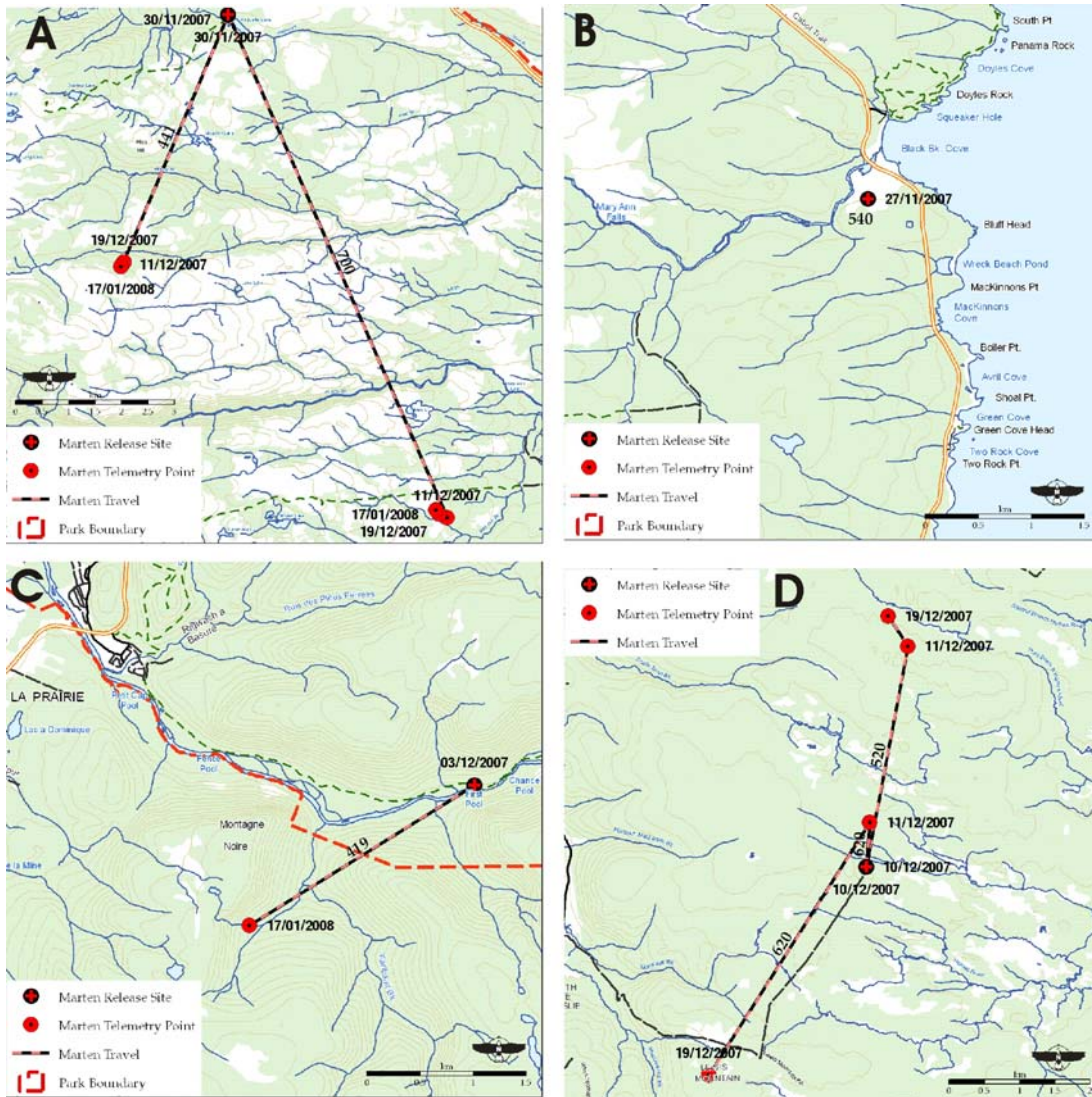


Figure 2 Marten release sites and subsequent movements November 2007 to January 2008. Release sites: A - Paquette Lake; B - Black Brook; C - Cheticamp River; D; Trout Brook.

References

Austin-Smith, Jr., Peter. 2006.

Feasibility Assessment and Plan for Augmenting the Cape Breton American Marten Population. For NS DNR and Parks Canada CBHNP. Nova Scotia Marten Recovery Team.

Habitat Subcommittee 2004.

Second Report of the Habitat Subcommittee to the Marten/Lynx Recovery Team (April 2004)

Johnson W.E., A. Antunes, S. Luo, P. Austin-Smith, M.O'Brien, S. J. O'Brien. 2005.

Genetic Distinctiveness of the Nova Scotia Populations of American marten, *Martes americana*. (Unpublished.)

Nova Scotia American Marten Recovery Team. 2006.

Recovery Strategy for American marten (*Martes americana*) on Cape Breton Island, Nova Scotia in Canada. Nova Scotia, Canada.