Atlantic Flyway Cooperative Banding Program

Atlantic Provinces

1988

M. C. Bateman
W. R. Barrow
J. W. Maxwell

Canadian Wildlife Service
Atlantic Region
February 1989

Environment Canada
Canadian Wildlife Service

Environnement Canada
Service canadien de la faune

Atlantic Flyway Cooperative Banding Program

Atlantic Provinces

1988

compiled by
M. C. Bateman
W. R. Barrow
J. W. Maxwell

Canadian Wildlife Service
Atlantic Region
February 1989

This report is a summary of the 1988 waterfowl banding program in Atlantic Canada. Included in the compilation, for information only, are the reports prepared by the crew leaders of the banding stations. The information in the tables is correct but the opinions and recommendations are not necessarily those of the Canadian Wildlife Service. Any publication or quotation of the contents will require substantial editing.

Summary

Atlantic Flyway Cooperative Waterfowl Banding Program

Atlantic Region

1988

The preseason Black Duck banding effort in the Atlantic Provinces in 1988 consisted of five bait stations, the CWS airboat, the USFWS airboat, and a dog-banding effort. The effort directed toward preseason banding was reduced in 1988 because of other priorities within CWS. In 1988, a new bait station was initiated at Cape Freels, Newfoundland. A total of 1794 Black Ducks was banded.

A total of 3257 birds was banded in 1988 (Table 1). In addition to the bait stations, airboats, and dog-banding directed toward Black Ducks, 135 Common Eider were banded at The Wolves, New Brunswick and in northern Newfoundland; and 165 Canada Geese were banded on Prince Edward Island. Waterfowl were banded in all four Atlantic Provinces (Table 2): 1750 (53.7 percent of the total) in New Brunswick 579 (17.8 percent) in Nova Scotia, 381 (11.7 percent) in Prince Edward Island, 524 (16.1 percent) in insular Newfoundland and 47 (1.4%) in Labrador.

Fifty-five percent of the waterfowl banded in 1988 were Black Ducks; 14 percent green-winged teal and 11 percent Blue-winged Teal (Table 2). Canada Geese (5 percent of the total) were banded in a special study on Prince Edward Island, and Common Eider (4 percent of total) were banded at special study areas in Newfoundland and New Brunswick.

More Black Ducks were banded in 1988 (1750) than in 1987 (1720) even though fewer stations were operated. The Bathurst station was exceptionally successful in 1988. That bait station banded 752 Black Ducks, 42 percent of the total blacks banded. The station at Churchill Falls, Labrador was relatively unsuccessful in 1988 (23 blacks and 23 green-wings were banded) even though 250 blacks were using the area. The Black Duck:Mallard ratio was the same as in previous years 1:0.03.

A total of 453 Green-winged Teal were banded in 1988. Thirty-five percent were banded at the new station at Cape Freels, Newfoundland. Carmanville bait station and the CWS airboat each banded 24 percent of the total. The cooperative banding program has in some years banded over 1000 green-wings. The most productive bait stations for green-wings, Tinker Harbour and Codroy were not operated in 1988.

Blue-winged Teal were the third most numerous species banded in 1988. A total of 351 birds were banded by the two airboat operations.

A review and evaluation of the objectives, of and available data from preseason Black Duck banding in the Atlantic Provinces made it evident that harvest distribution data are lacking or out of date for some areas. In 1988 surveys were carried out in some of the areas requiring attention. Ground surveys in Cape Breton Island were directed toward establishing a bait trap station in that area. Aerial surveys in cooperation with the USFWS were flown in Cape Breton, Newfoundland and Labrador.

The total cost of the program in 1988 (including surveys) was $47399 (Table 3). The cost per Black duck banded in 1988 was $27.99, lower than in 1987 ($29.04) but higher than in 1986 ($25.72). The highest costs per Black

Duck were at the new Cape Freels station ($287.28) and Churchill Falls ($342.18). It is essential that information from those areas be obtained even though cost is high. The most efficient station in 1988 was Bathurst ($8.54 per Black Duck) where a record 752 blacks were banded.

Age composition of the Black Ducks banded ranged from 54 percent immatures at the N.B.-N.S. border bait station to 100 percent immatures at Cape Freels (Table 4 to 11). The 78 percent immatures at Churchll Falls indicates that this station will band Labrador reared birds rather than post--reeding males. The high proportion of immature birds banded at Bathurst (82 percent) Churchill Falls and Cape Freels suggests successful production in Labrador and Newfoundland in 1988.

Table 1. Summary of waterfowl banded in the Atlantic Provinces by station 1988

Banding Location	Mallard	Black Duck	BlkXMal Hybrid	G-w.. Teal	B.-w. Teal	Am. Wigeon	N. Pintail	Wood Duck	R.-n. Duck	N. Shov.	G. Scaup	C. Gold.	Gad.	H. Merg.	C. Goose	C. Eider	Mis. Sp.*	Total
Cape Freels, Nfld.		22	2	159														183
Carmanville, Nfld.	1	115	1	111														228
N. Nfld.																89		89
Churchill Falls, Lab.		23		23			1											47
N.B.-N.S. Border Area	11	170	5		1				4								2	193
Bathurst, N.B.	24	752	44	1			15											836
The Wolves, N.B.																46		46
Rocket Netting, P.E.I.	8	140		18			1								165			332
Dog banding	1	74	1															76
U.S.A. Airboat	13	198	3	30	185	59		54	6	6	1	1						556
CWS Airboat	5	300		111	165	26	9	16	22	6		3	5	3				671
Totals	63	1794	56	453	351	85	26	70	32	12	1	4	5	3	165	135	2	3257

*P-b.Grebe

Table 2. Total number and percent by province of waterfowl banded by Cooperative Waterfowl Banding Program Atlantic Provinces - 1988

Species	New Brunswick		Nova Scotia		Prince Edward Island		Newfoundland		Labrador		Total	
	No	%	No	%	No	%	No	%	No.	%	No	%
Mallard	40	2	13	2	9	2	1	–	–	–	63	2
Am. Black Duck	1149	66	332	57	153	40	137	27	23	49	1794	55
Black X Mallard Hyb.	47	3	6	1	–	–	3	1	–	–	56	2
Green-winged Teal	56	3	82	14	22	6	270	54	23	49	453	14
Blue-winged Teal	249	14	78	14	24	6	–	–	–	–	351	11
American Wigeon	63	4	21	4	1	–	–	–	–	–	85	3
Northern Pintail	17	1	3	–	5	1	–	–	1	2	26	1
Northern Shoveler	6	–	6	1	–	–	–	–	–	–	12	–
Wood Duck	62	4	6	1	2	1	–	–	–	–	70	2
Ring-necked Duck	10	1	22	4	–	–	–	–	–	–	32	1
Greater Scaup	1	–	–	–	–	–	–	–	–	–	1	–
Gadwall	–	–	5	1	–	–	–	–	–	–	5	–
Common Eider*	46	3	–	–	–	–	89	18	–	–	135	4
Hooded Merganser	–	–	3	–	–	–	–	–	–	–	3	–
C. Goldeneye	4	–	–	–	–	–	–	–	–	–	4	–
Canada Goose	–	–	–	–	165	43	–	–	–	–	165	5
Misc. Sp.	–	–	2	–	–	–	–	–	–	–	2	–
	1750		579		381		500		47		3257	

*Eider banding was not part of the Co-op program

Table 3. Cooperative Waterfowl Banding Cost Summary - Atlantic Region - 1988

Station	Salaries	Bait	Food & Lodging	Trans-Transportation	Equipment & Supplies	Total Cost	No. of Birds	Cost/ Bird	No. of Black Ducks	Cost/ Black Duck
Cape Freels, Nfld.	*2000.00 (600.00)	*204.52	*974.00	*1909.01 (360.00)	*189.61 (83.00)	6320.14	183	34.54	22	287.28
Carmanville, Nfld.	*1500.00	*200.00	-	-	-	1700.00	228	7.46	115	14.78
Hare Bay, Nfld.	-	-	-	-	-	-	89	-	-	-
Churchill Falls	*2700.00 (800.00)	-	*1480.59	*2155.32	*651.28 (83.00)	7870.19	47	167.45	23	342.18
N.B.-N.S. Border Area	*2700.00	*354.15	-	(379.24)	*183.98 (83.00)	3700.37	193	19.18	170	21.77
Bathurst, N.B.	*2900.00 (500.00)	*763.10	*1027.17	*259.00 (887.93)	(83.00)	6420.20	836	7.68	752	8.54
The Wolves, N.B.	-	-	-	-	-	-	46	-	-	-
P.E.I. Rocket S	(4050.00)	(200.00)	(693.00)	(490.00)	(40.00)	5473.00	93	58.85	-	-
Netting F	(3200.00)	(281.00)	(805.00)	(600.00)	(87.52)	4973.52	239	20.81	140	35.52
Dog Banding	-	-	-	-	-	-	76	-	74	-
U.S.A. Airboat	*500.00 (Total costing not available)			*86.20	-	586.20	556	-	198	-
CWS Airboat	(3000.00)	-	*450.00	(917.00)	(98.00) *1681.21	6146.21	671	9.16	300	20.49
Lab & Cape Breton Surveys	(2300.00)	-	*1335.000	*175.00 (400.00)	-	4210.00	-	-	-	-
Totals	26750.00	2002.77	6764.76	8618.70	3263.60	47399.83	3257	°17.11	1794	°27.99

( ) - CWS Funds $21118.69
* - Co-op Funds $26281.14

°Total costing applies to only those stations with complete data ($42603.63 - 2490 birds - 1522 Black Ducks)

Table 4. Age and sex breakdown of waterfowl banded at the Border Area 1988

	Local			Hatch Year			Adult				
	M	F	T	M	F	T	M	F	T	U	Total
Mallard	1	–	1	3	–	3	4	3	7		11
Black Duck	3	2	5	53	34	87	41	37	78		170
Hybrid	–	–	–	2	1	3	2	–	2		5
Ring-necked Duck	2	–	2	2	–	2	–	–	–		4
Blue-w. Teal	–	–	–	–	1	1	–	–	–		1
Pied-b. Grebe	–	–	–	–	–	–	–	–	2		2
Total	6	2	8	60	36	96	47	40	87	2	193

Table 5. Species age and sex - Bathurst 1988

Species	Local			Hatch Year			After Hatch Year				
	M	F	T	M	F	T	M	F	T	U	Total
Am. Black Duck				316	303	619	55	77	132	1	752
Mallard X Black Duck Hyb.				21	6	27	12	5	17		44
Mallard				9	7	16	6	2	8		24
Northern Pintail				6	9	15					15
Am. Green-winged Teal				1		1					1
Totals				353	325	673	73	84	157	1	836

Table 6. Total number of waterfowl banded for each species, sex and age class USA Airboat

Species	Local			Hatch Year			After Hatch Year			Total
	M	F	T	M	F	T	M	F	T	
Am. Black Duck	39	31	70	50	65	115	3	10	13	198
Blue-winged Teal	75	66	141	14	15	29	6	9	15	185
Am. Green-winged Teal	8	4	12	5	5	10	3	5	8	30
American Wigeon	26	23	49	2	0	2	4	4	8	59
Wood Duck	7	6	13	3	11	14	22	5	27	54
Mallard	3	5	8	0	2	2	2	1	3	13
Northern Shoveler	0	0	0	2	4	6	0	0	0	6
Ring-necked Duck	0	4	4	0	1	1	0	1	1	6
Common Goldeneye	1	0	1	0	0	0	0	0	0	1
Greater Scaup	0	1	1	0	0	0	0	0	0	1
Mallard X Black Duck	1	0	1	2	0	2	0	0	0	3
Total	160	140	300	78	103	181	40	35	75	556

Table 7. Age and sex breakdown of waterfowl banded with the CWS Airboat 1988

Species	Local			Hatch Year			After Hatch Year			Unk.	Total
	M	F	T	M	F	T	M	F	T		
Mallard	–	–	–	–	–	–	4	1	5	–	5
Black Duck	87	77	164	59	50	109	12	14	26	1	300
Green-winged Teal	4	1	5	21	29	50	37	19	56	–	111
Blue-winged Teal	20	26	46	25	29	54	51	14	65	–	165
American Wigeon	9	8	17	1	2	3	4	2	6	–	26
Northern Shoveler	4	1	5	–	–	–	1	–	1	–	6
Northern Pintail	–	3	3	3	3	6	–	–	–	–	9
Wood Duck	2	–	2	–	–	–	11	3	14	–	16
Ring-necked Duck	10	6	16	–	–	–	4	2	6	–	22
Gadwall	2	3	5	–	–	–	–	–	–	–	5
Common Goldeneye	2	1	3	–	–	–	–	–	–	–	3
Hooded Merganser	–	–	–	–	1	1	–	2	2	–	3
Totals	140	126	266	109	114	223	124	57	181	1	671

Table 8. Age & Sex breakdown for waterfowl captured at Orwell Bay, PEI, 1988

Species	Hatch Year			After Hatch Year			Unk.	Total
	M	F	T	M	F	T		
Mallard	6	-	6	1	1	2		8
Black Duck	77	46	123	7	10	17		140
Green-winged Teal	4	5	9	4	5	9		18
Pintail	1	-	1	-	-	-		1
Canada Goose	13	32	45	52	67	119	1	165
Totals	101	83	184	64	83	147	1	332

Table 9. Age and sex breakdown, 1988 Carmanville, Newfoundland waterfowl banding project

Species	Local			Hatch Year			After Hatch Year			Total
	M	F	T	M	F	T	M	F	T	
Black Duck				53	54	107	4	4	8	115
BlackXMallard Hyb.					1					1
Mallard								1	1	1
Green-winged Teal				40	63	103	3	5	8	111
Totals				93	118	211	7	10	17	228

Table 10. Age & Sex Breakdown, Churchill Falls, Labrador

Species	Hatch Year M	Hatch Year F	After Hatch Year M	After Hatch Year F	Totals M	Totals F	Total
Am. Green-winged Teal	2	18		3	2	21	23
Black Duck	12	6	1	4	13	10	23
Northern Pintail	1						1
Totals	15	24	1	7	15	31	47

%AHY - Green-winged Teal 13%
Blacks 22%

Table 11. Age-Sex Breakdown for Cape Freels, Newfoundland

Species	HY M	HY F	AHY M	AHY F	Total
Black Duck	16	6	0	0	22
Black Duck X Mallard Hybrid	0	2	0	0	2
Am. Green-winged Teal	76	79	0	4	159
Totals	92	87	0	4	183

Waterfowl Banding Project

New Brunswick - Nova Scotia Border Area

July 25 - September 2, 1988

Crew Members

W. R. Barrow

for

Dale Patterson

Brian Maxwell

Introduction

The Border Area banding station is located at the most easterly limits of the Cumberland Basin within the Bay of Fundy Region (Fig. 1). Banding sites were scattered along the Maccan and River Hebert estuary system between the towns of Maccan and Amherst, Nova Scotia. The Chignecto National Wildlife Area is located within this zone and is the focal point for most banding efforts. The John Lusby (saltmarsh) component and the Amherst Point Sanctuary (freshwater) are part of this wildlife area and both are managed extensively for waterfowl. Banding efforts have been ongoing in this area for approximately twenty-five years.

Banding, trapping supplies, bait technical and financial support were provided by the Canadian Wildlife Service as part of the Co-operative Waterfowl Banding Program. This program is a joint project supported by both Canadian and American wildlife agencies.

Prebaiting with a cracked corn barley mix was initiated on 25 July and within a week waterfowl were trapable. Station activities terminated 29 August.

Four species of waterfowl, five Black X Mallard Hybrids, one marsh bird species, and a grand total of 193 birds was bait trapped in 1988 (Table 1). Black Ducks (170) were the most numerous accounting for approximately 90 percent of the total. Mallards (11), hybrids (5), Ring-necked Ducks (4) and Blue-winged Teal (1) accounted for the remaining 10 percent.

Discussion

Two factors were detrimental to station success in 1988. The Russel impoundment on the John Lusby saltmarsh was not available due to management procedures. In the past, two to three hundred birds were captured in this area. The potential to band large numbers of the two teal species, pintail and wigeon was not absorbed or balanced by replacement trap sites. Management practices on the Chignecto NWA are predictable and loss of one or several impoundments is possible each year. To compensate, banding efforts at the east Amherst marshes would prove more productive than those selected in 1988. Previous banding efforts at Maccan were erratic and inefficient and cancelled for those reasons.

Late spring storms and adverse weather had a negative effect on station success. Production was eliminated for early nesters and delayed for others. Only eight local birds were captured this year. The movement of Atlantic Region birds into the Chignecto Area was delayed along with that for long distance migrants. The delay in seasonal build-up was not considered and the station was terminated too soon.

Waterfowl mortality was a minor factor in 1988. Predator problems were non-existent. Five birds were drowned in gaps between support poles and wire. Placing the poles outside the wire would eliminate that problem..

The data accumulation for this banding station and others is substantial and held at the CWS Sackville library. Future banding technicians are well advised to do some research and planning in advance. The completion of reports, schedules etc. are banding crew responsibilities and should be completed prior to station shutdown.

Table 1. Age and sex breakdown of waterfowl banded at the Border Area 1988

	Local			Hatch Year			Adult				
	M	F	T	M	F	T	M	F	T	U	Total
Mallard	1	-	1	3	-	3	4	3	7		11
Black Duck	3	2	5	53	34	87	41	37	78		170
Hybrid	-	-	-	2	1	3	2	-	2		5
Ring-necked Duck	2	-	2	2	-	2	-	-	-		4
Blue-w. Teal	-	-	-	-	1	1	-	-	-		1
Pied-b. Grebe	-	-	-	-	-	-	-	-	2		2
Total	6	2	8	60	36	96	47	40	87	2	193

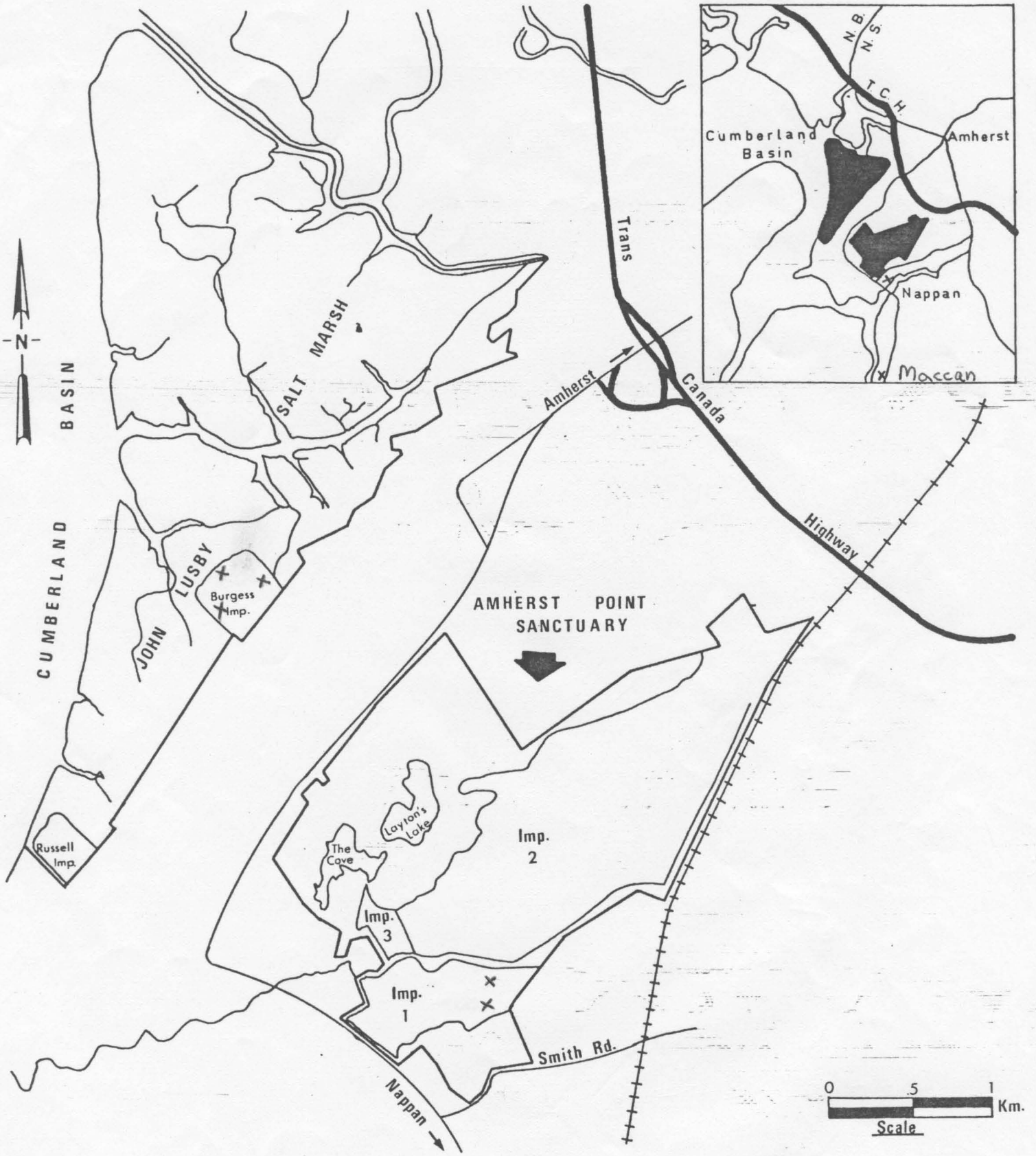


Figure 1. Border Area banding station location.

Trap sites - x

Waterfowl Banding Project

Bathurst, New Brunswick

September 6 to October 21, 1988

Crew Members

Russell Ferguson

Aubrey Anderson

Following instruction in Sackville, N.B. on September 6, 1988, Russell Ferguson and Aubrey Anderson arrived in Bathurst, N.B. on September 7, 1988. CWS technician John Maxwell arrived on the same date to introduce the crew to the area.

This year the waterfowl banding crew had accommodations at Ingle Neuk cabins on Youghall Drive in Bathurst.

A waterfowl survey of Bathurst harbour and basin area found 330 Black Ducks, 3 Mallards, 15 Blue-winged Teal, 8 Canada Geese, 11 Common Goldeneye, 24 Common Merganser, 5 Hooded Merganser and 8 White-fronted Geese.

On September 8, prebaiting was initiated at several traditional sites. Three sites were prebaited at the mouth of the Tetagouche River, two sites prebaited at Carron Marsh, two sites along the golf course (Ferguson Pt.), and two more sites along Youghall Drive. On the same date that prebaiting started, there were ducks on bait at four of the locations.

Between September 9 and September 14 five traps were set up and made operational. Two more traps went into operation on September 17. It was not until October 23 that we received permission to use Roger Frenette's property to set up traps in his Ducks Unlimited impoundment and Eddy Brook. Traps had to arrive from Sackville on two occasions for placement at the mouth of Eddy Brook on October 27th and October 30th. Refer to Table 2 for individual trap set up and operational dates. Please refer to figure 1 for location of traps.

Banding commenced on September 13 with Youghall Drive Trap 1 and Ferguson Point Trap 2. Ferguson Point did exceptionally well this year at the expense of the Tetagouche traps. Construction work adjacent to the mouth of the Tetagouche River is blamed for the lack of waterfowl in that area for the first two weeks of the project. The Tetagouche Traps were more successful in late September when the construction work ceased.

There were 13 fatalities this year, 9 of which were banded. The nine bands were destroyed. Two ducks were lost to predators from Eddy Brook traps. One duck was decapitated on 10-10-88 and the other met the same fate on 10-18-88. Six other Black Ducks were found dead in bait traps, possibly drowned by either becoming entrapped in burlap used to prevent drift or by large numbers of ducks crowding into the traps. One Black Duck was found dead floating in the D.U. Impoundment on 10-11-88. Two additional bands were destroyed, one was removed from a duck with a broken leg, and the other was found lying in an Eddy Brook trap, spread open. Three additional fatalities occurred during the project. On September 30 a foreign recapture was fatally injured in Youghall Drive Trap 1. A Bathurst citizen turned in a foreign band from a duck he found on the beach. On October 18 a hunter shot a duck banded in Bathurst this year, and returned the band.

High tides forced the closure of several traps on three occasions, September 16, September 25, October 11. High winds and waves caused damage to four traps on October 6, which in turn caused losses of waterfowl, and hours of repairs.

Aubrey Anderson had to return to Newfoundland on October 12. Russell Ferguson continued to run 8 traps until October 21.

Summary and Recommendations

The Bathurst Harbour bait trapping project proved to be very successful in 1988. There was a total capture of 2245 ducks. Eight hundred thirty six ducks were banded from the 2245. There were more fatalities this year as compared to previous years but they may be attributed to triple the total capture. This year there was less than 0.6% mortality due to bait

trapping as compared to 1.0% mortality at the Bathurst station in 1986 and 1987.

The large increase in the total number of ducks captured and banded may be attributed to the use of more traps and new trap locations. The area around Indian Island, and Eddy Brook, and Roger Frenette's D.U. impoundment contains high numbers of ducks at all times, especially in poor weather. Youghall Drive trap 1 was also very consistent and productive as a new trap area. There was not any area of the harbour that did exceptionally better than other areas. Ferguson Point achieved the highest percentage of ducks banded with 23%. Carron Marsh produced the lowest percentage at 9%. Refer to Table 2 for totals and percentages of ducks banded at each trap.

Roger Frenette has given permission to use his property in the future for bait trapping the impoundment and Eddy Brook. Eddy Brook has the potential to catch phenomenal numbers of ducks if traps were set up at the beginning of the project.

The D.U. impoundment is a great site for catching Northern Pintail, Am. Green-winged Teal, and American Wigeon. The new areas mentioned are strongly recommended for trapping in future years.

The 1988 Bathurst crew would like to stress the usefulness of observation time. The longer we spent observing the ducks in and around the traps, the more we learned about catching more ducks, and losing fewer. Observation time told us where to make improvements and where to trap new areas.

We would also like to recommend future crews to watch for Canada Goose collars. The Bathurst area is ideal for locating good numbers of collars and the opportunity should not be lost.

Additional data

Blood samples of 15 Black Ducks were taken on October 7 by Al Hansen of the Department of Natural Resources.

A list of twenty observed Canada Goose collars was given to the CWS Sackville office.

Ten hatch year Black Ducks were given to Pat Kehoe of the Department of Natural Resources for genetics study.

Public Information

Ducks Unlimited held a Green-winged Day for local children on September 25. We were asked by Bathurst area D.U. Chairman, Roger Young, to demonstrate how to trap and band waterfowl. The local newspaper, the Northern Light, covered the event with an article in the September 28th edition.

Acknowledgements

We are grateful to numerous people in the Bathurst area, for their friendliness, helpfulness, and cooperation.

Charlie McAleenan and Ida McAleenan receive special thanks. Their contributions to the project are too numerous to mention.

Ken and Jean Babin, Proprietors of Ingle Neuk cabins must be thanked for their hospitality, helpfulnes and a delicious Thanksgiving Dinner.

Arthur Ronalds was kind enough to give us numerous burlap bags, help with banding on occasion, and the use of his property for viewing Canada Geese.

Thanks to Carl Hill for use of his property for access to Youghall Drive Trap 2 and for a viewpoint of the harbour and Ferguson Point traps.

Charles Sweet kindly offered his property for a viewpoint to the mouth of the Tetagouche River.

Roger Frenette is thanked for the use of his property to set up traps in his D.U. impoundment and Eddy Brook.

Thanks also go out to Frederick Good, Robert Branch and Doucet's Landscaping for permission to use their property for viewing geese.

We thank Roger and Norm Young for offering their property as access to a possible bait trap location.

Mrs. Walsh of Youghall Drive gave us some helpful information and a generous offering of cookies.

Useful Information

Charlie and Ida McAleenan

870 Youghall Drive

Work 547-2075 Home 546-5622

Ken and Jean Babin

1330 Youghall Drive

Ingle Neuk Bed and Breakfast 546-5758

Arthur Ronalds

Carron Point Road

548-8418

A possible source for burlap bags

Carl Hill

820 Youghall Drive

546-9611

Charles Sweet

102 Cote Bleu Drive

546-5330

Roger Frenette

Corner of Mercury Street and Cormier Avenue

Frederick Good owns the farmland past Arthur Ronalds farm 546-2811

Robert Branch owns a farm on King Avenue

Norm Young owns Youghall Trailer Park

Whole corn can be purchased at Bathurst Agricultural Co-op behind the High School at 100 Munro Street 548-8730

Burlap bags may be obtained from Madran tree farm 783-7235

Kents hardware, Main Street,

Bathurst Bob Mackinnon

Weekly tide times published Wednesday in the Northern Light.

Weather forecast and tide times at 548-3220.

Bathurst DNR Office

Vanier Blvd.

547-2075

Equipment

Materials left in the white shed at Petit Rocher DNR office are as follows:

Trap wire for 3-3 funnel 6 ft. traps

4-3 funnel 4 ft. traps

2-2 funnel 4 ft. traps

1 floating trap with mooring ropes

4 bricks for anchors

Top nets for 11 traps

1 bait bucket (steel grey)

2 bait buckets (plastic yellow)

2 dip nets

6 burlap bags

9 band station posters

14 poster back boards

10 new 10 ft trap poles (rebar steel)

1 clipboard

1 red wooden box containing: 1 pair of gloves

1 hammer

1 roll of wire

1 length of rope

1 piece of netting for repairs

Contact Jack Furlotte or Charlie McAleenan for a key to the shed.

Bathurst DNR Office 547-2075

Table 1. Waterfowl Surveys - Bathurst Harbour, September 10-October 16,, 1988

Species	Sept 10	Sept 17	Sept 24	Oct 1	Oct 11	Oct 16
Black Duck	330	490	369	486	692	688
Mallard	3	11	8	5	6	3
Green-winged Teal		8	9	15	5	
Blue-winged Teal	15	2				
Northern Pintail		13	8	10	13	7
Common Merganser	24	34	13	11	17	26
Red-breasted Merganser				7		46
Hooded Merganser	5	8	3	8	41	40
Common Goldeneye	11	8	10	22	50	79
Surf Scoter		2				
Canada Geese	8	355	442	1402	1966	2700
White-fronted Geese	8	2	2	2		

Table 2. Trap Success - Bathurst 1988 Ba- Banded Re- Recapture

Date	Yougall Drive Trap 1 Ba	Yougall Drive Trap 1 Re	Yougall Drive Trap 2 Ba	Yougall Drive Trap 2 Re	Ferguson's Pt. Trap 1 Ba	Ferguson's Pt. Trap 1 Re	Ferguson's Pt. Trap 2 Ba	Ferguson's Pt. Trap 2 Re	Tetagouche R. Trap 1 Ba	Tetagouche R. Trap 1 Re	Tetagouche R. Trap 2 Ba	Tetagouche R. Trap 2 Re	D.U. Impoundment Trap 1 Ba	D.U. Impoundment Trap 1 Re	D.U. Impoundment Trap 2 Ba	D.U. Impoundment Trap 2 Re	Eddy Brook Trap 1 Ba	Eddy Brook Trap 1 Re	Eddy Brook Trap 2 Ba	Eddy Brook Trap 2 Re	Carron Marsh Trap 1 Ba	Carron Marsh Trap 1 Re	Total banded	Total Recap	Total Capture	% Banded
Sept 9					set up																set up					
10	set up						set up																			
11																										
12	operational		set up						set up																	
13	4						11		operational														15		15	100
14	1		operational																		operational		1		1	100
15																							6		6	100
16							3				set up										closed high tides		3		3	100
17					operational		2	2			operational										reopened		2	2	4	50
18	4						11														4		19		19	100
19	6						10	1															16	1	17	94
20	1	1					6	1	1	1													8	3	11	73
21	2	1					10	5		1													12	7	19	63
22	10	1					5	2	18	2											4	6	37	11	48	77
23	5	3					8	3	10	3			set up		set up								23	9	32	71
24	5	1							5	1													10	2	12	83
25	8	3			closed		12	5	8	3											7	2	35	13	48	73
26	8	8	1						6	1													15	9	24	63
27	1						10	5	5	4			9	1			set up						25	10	35	71
28	4	3	closed				19	12	11	6			4	6	2		operational						40	27	67	60
29	4	3					10	10	2	4			3	3	3	1	3	4					25	25	50	50
30		2					17	14									10	7	set up				27	23	50	54
Oct 1	5	5			reopened				13	8	moved		6		2	3	7	22					33	38	71	46
2	9	7	reopened						14	11	12	9	3	1	1		12	11			16	3	67	42	109	61
3	7	11	1						6	9	10	12	2	1	3	2	17	19					46	54	100	46
4	6	12	3	4			10	9	12	12	8	5	10	12	2	3	5	16			6	2	62	75	137	45
5													3	8	5	5			13	17	24	22	45	52	97	46
6	5	8	2	3							2	6			6	6	13	19	8	11			36	53	89	40
7	4	4	1		4		21	27	2	17			1	4	8	13	8	20	5	7	3	17	53	113	166	32
8	2	9	1	3											1	3	8	31	3	19	1	6	16	71	87	18
9							2	5	10	21	2	7			2	3	5	21	7	9	5	11	33	76	109	30
10	2	8		1	14			8						1	7	9		10	1	9		2	10	62	72	14
11	3	3			closed		1	4		9		1	1	4	1	5	2	17	1	4		4	9	54	63	14
12	7	8		4			1	2	4	9		4	4	9	1	7	3	10	2	21	2	10	24	84	108	22
13		3	closed				3	10	3	12			6	10	4	8	closed		closed		closed		16	43	59	27

Table 2. **Trap Success** - Bathurst 1988 Ba- Banded Re- Recapture (Cont'd)

Date	Yougall Drive Trap 1 Ba	Yougall Drive Trap 1 Re	Yougall Drive Trap 2 Ba	Yougall Drive Trap 2 Re	Ferguson's Pt. Trap 1 Ba	Ferguson's Pt. Trap 1 Re	Ferguson's Pt. Trap 2 Ba	Ferguson's Pt. Trap 2 Re	Tetagouche R. Trap 1 Ba	Tetagouche R. Trap 1 Re	Tetagouche R. Trap 2 Ba	Tetagouche R. Trap 2 Re	D.U. Impoundment Trap 1 Ba	D.U. Impoundment Trap 1 Re	D.U. Impoundment Trap 2 Ba	D.U. Impoundment Trap 2 Re	Eddy Brook Trap 1 Ba	Eddy Brook Trap 1 Re	Eddy Brook Trap 2 Ba	Eddy Brook Trap 2 Re	Carron Marsh Trap 1 Ba	Carron Marsh Trap 1 Re	Total banded	Total Recap	Total Capture	% Banded
14	2	4					4	12		9	1	3	4	37	4	10							15	75	90	17
15	1	21					2	11		6	2	14	2	10	2	6							9	68	77	12
16	3	18					1	3		2	3	10											7	33	40	18
17	3	6						3						3	1	10	4	16	2	8			10	46	56	18
18	3	9					4	16	6	16		2					2	2					15	45	60	25
19		15						3						15						22				55	55	0
20		14					2	37					3	20					1	20			6	91	97	6
21		8					5	24															5	32	37	14
	125			9			190		136		40		61		55		99		43		78		836	1404	2240	37
		134				190				176				116				142				78				
		16%				23%				21%				14%				17%				9%				

Foreign recaptures 63

Table 3. Species age and sex - Bathurst 1988

Species	Local			Hatch Year			After Hatch Year				
	M	F	T	M	F	T	M	F	T	U	Total
Am. Black Duck				316	303	619	55	77	132	1	752
Mallard X Black Duck Hyb.				21	6	27	12	5	17		44
Mallard				9	7	16	6	2	8		24
Northern Pintail				6	9	15					15
Am. Green-winged Teal				1		1					1
Totals				353	325	673	73	84	157	1	836

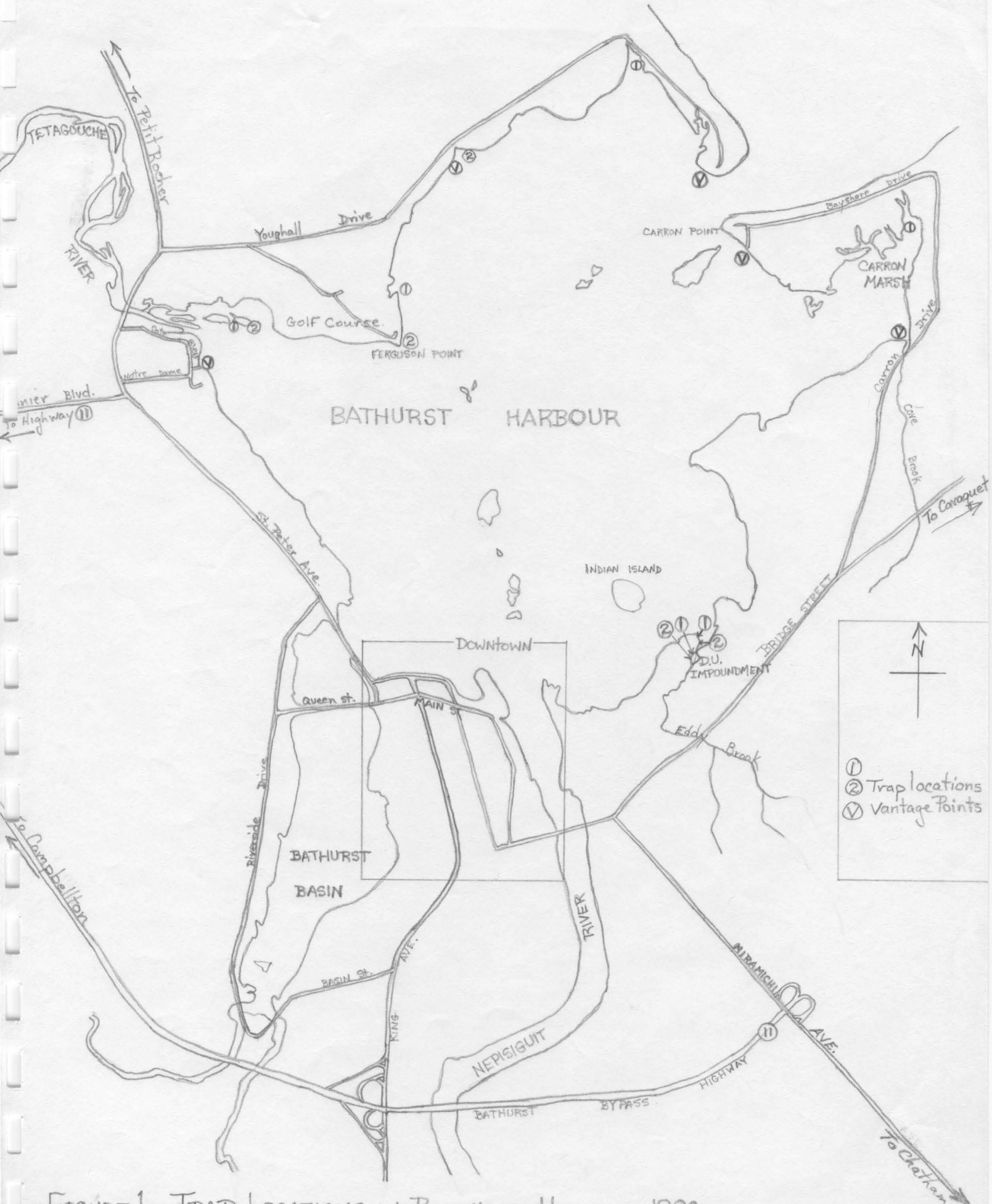


FIGURE 1. TRAP LOCATIONS IN BATHURST HARBOUR 1988

Waterfowl Banding Project

U.S.A. Airboat

July 25 - August 9, 1988

Crew Members

Carl Ferguson

Allen Carter

Andrew Hicks

A total of 556 ducks was banded during 14 nights (43.6 hours of airboat operation on 19 marshes in or adjacent to the Saint John River near Jemseg, New Brunswick. The total for Black Ducks (198) and total waterfowl (555) banded represents the lowest total for each of the last six years. The Canadian Broadcasting Corporation and two local newspapers were involved in a public relations effort this summer.

The USFWS members of the airboat crew departed Parker River NWR on July 25 and arrived in Jemseg, New Brunswick late that same night. We linked up with the CWS crew member on the 26th. We experienced airboat engine problems on the 26th as we were making a familiarization run on nearby Grand Lake. Because of these problems, we did not begin operating until the night of July 27th.

During the first two days, contact was made with CWS, Sackville; Fish and Game Branch, New Brunswick Department of Natural Resources; Gagetown Detachment of the RCMP, and several land owners. Water levels at the Jemseg bridge were lower than normal. All species of waterfowl encountered seemed to be lower in numbers than the past five years. Breeding pair counts in the spring were up for Black Ducks, but a cold, wet, late spring period extending into May might have affected this year's production. All natural marshes in and adjacent to the Saint John River seem to be identically low in ducks. The exceptions to this were two large Ducks Unlimited impoundments, Boyd's Marsh and Babbits Meadows. Ducks were found in the same areas within these marshes but at lower numbers. All marshes worked and all launch sites used are marked on the attached maps.

We have gradually expanded our efforts in the DU marshes along the Saint John River the last few years because we can capture more ducks/hour there. Their strategy of holding water in the marshes in late summer seems

beneficial for both broods and overnight roosting waterfowl. Approximately 60 percent of the total Black Ducks and almost 50 percent of the total waterfowl banded came from three DU impoundments, Foshay Lake, Boyd's Marsh and Babbits Meadows. Even though duck numbers were down, there seemed to be a dramatic difference between the DU impundments and the adjacent natural marshes.

Recommendations

Operations -

1. Continue to coordinate with the Fish and Game Branch, New Brunswick Department of Natural Resources and Ducks Unlimited Fredericton, New Brunswick office into creating launch sites into more DU impoundments.
2. Continue to coordinate with key land owners for permission to use their access points and to operate on the marshes.
3. Coordinate with the New Brunswick Department of Natural Resources and Canadian Wildlife Service in further public relations efforts.

Equipment

1. CWS airboat crews have a better idea with their dip nets. We should have larger hoops, deeper nets, and a lighter overall dip net.
2. Region 5, USFWS, should have a new airboat for next year's Canadian banding program in New Brunswick. Hopefully we will be able to take "lessons learned" and equip this boat for a more efficient banding operation.

Acknowledgements

I would like to thank Myrtle Bateman, CWS; Pat Kehoe, New Brunswick Department of Natural Resources; Andrew McGinnis, Fredericton Ducks Unlimited Office, Thomas Gilbert, and Earl Webb for their assistance in getting the job done this year. It was a team effort.

Special thanks to the 1988 airboat crew members, Allen and Andy, for their hard work during the banding assignment.

Table 1. Total number of waterfowl banded for each species, sex and age class

Species	Local			Hatch Year			After Hatch Year			Total
	M	F	T	M	F	T	M	F	T	
Am. Black Duck	39	31	70	50	65	115	3	10	13	198
Blue-winged Teal	75	66	141	14	15	29	6	9	15	185
Am. Green-winged Teal	8	4	12	5	5	10	3	5	8	30
American Wigeon	26	23	49	2	0	2	4	4	8	59
Wood Duck	7	6	13	3	11	14	22	5	27	54
Mallard	3	5	8	0	2	2	2	1	3	13
Northern Shoveler	0	0	0	2	4	6	0	0	0	6
Ring-necked Duck	0	4	4	0	1	1	0	1	1	6
Common Goldeneye	1	0	1	0	0	0	0	0	0	1
Greater Scaup	0	1	1	0	0	0	0	0	0	1
Mallard X Black Duck	1	0	1	2	0	2	0	0	0	3
Total	160	140	300	78	103	181	40	35	75	556

FIG. 1

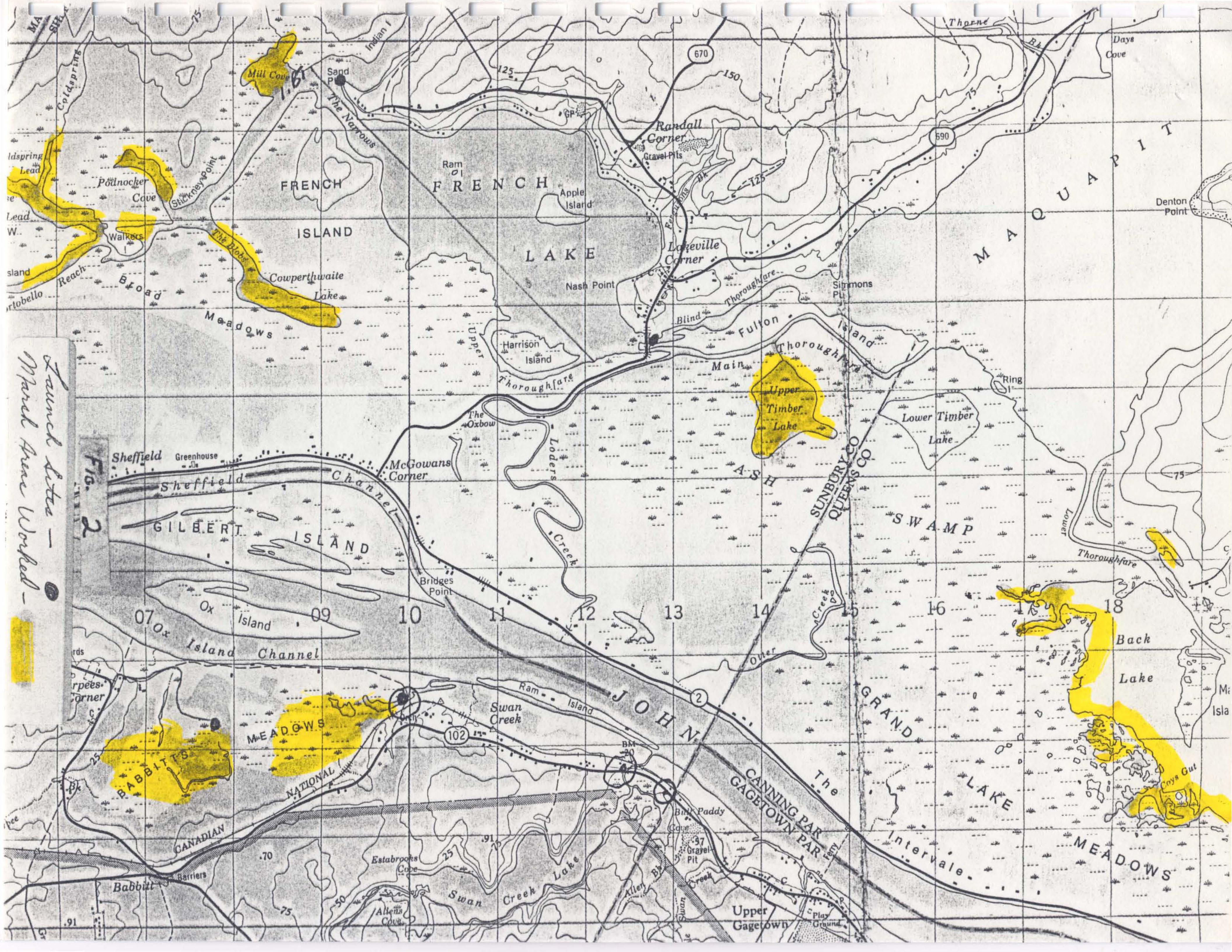

Launch Site —
Marsh Area Worked —
Mill Cove
Sand Pt
The Narrows
Indian I
670
690
125
150
75
Randall Corner
Gravel Pits
Ram I
FRENCH LAKE
FRENCH ISLAND
Apple Island
Podnocker Cove
Stickney Point
Walkers
The Glebe
Cowperthwaite Lake
Broad Meadows
Portobello Reach
Coldspring
Lakeville Corner
Nash Point
Blind
Thoroughfare
Fulton Island Thoroughfare
Main Thoroughfare
Simmons Pt
MAQUAPIT
Denton Point
Days Cove
Harrison Island
Upper Thoroughfare
The Oxbow
Loders Creek
Upper Timber Lake
Lower Timber Lake
Ring
ASH SWAMP
SUNBURY CO
QUEENS CO
Sheffield
Greenhouse
Sheffield Channel
McGowans Corner
GILBERT ISLAND
Bridges Point
Ox Island
Ox Island Channel
07
09
10
11
12
13
14
15
16
17
18
Lower Thoroughfare
Back Lake
Otter Creek
Ram Island
Swan Creek
JOHN
2
102
BABBITTS MEADOWS
NATIONAL
CANADIAN
BM 20
Bull Paddy Cove
CANNING PAR
GAGETOWN PAR
Ferry
GRAND LAKE MEADOWS
The Intervale
Coys Gut
Estabrooks Cove
Swan Creek Lake
Allens Cove
Allen Bk
Gravel Pit
Upper Gagetown
Play Ground
Babbitt
Barriers
Corner

Fig. 2

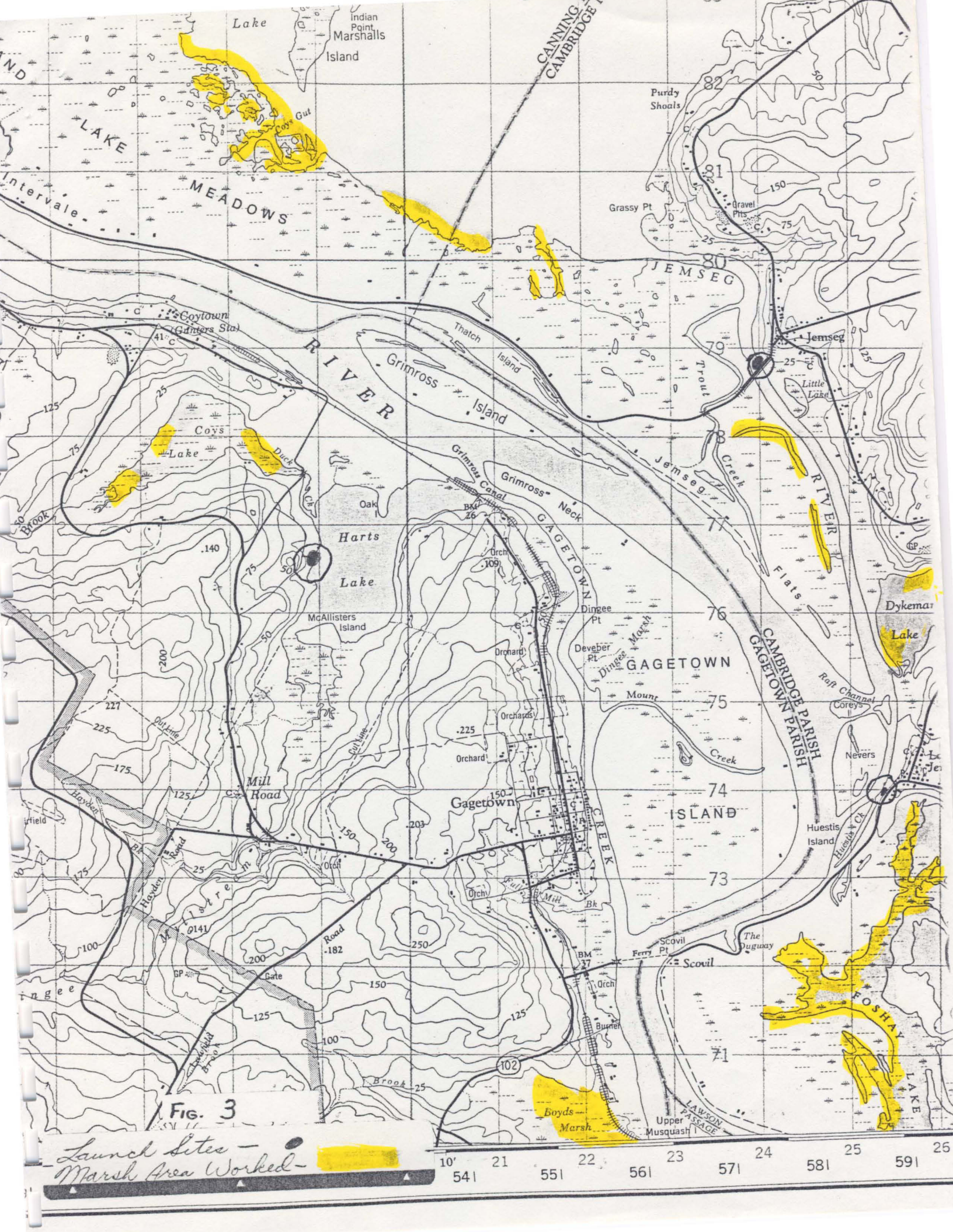


FIG. 3

Launch Sites —
Marsh Area Worked —

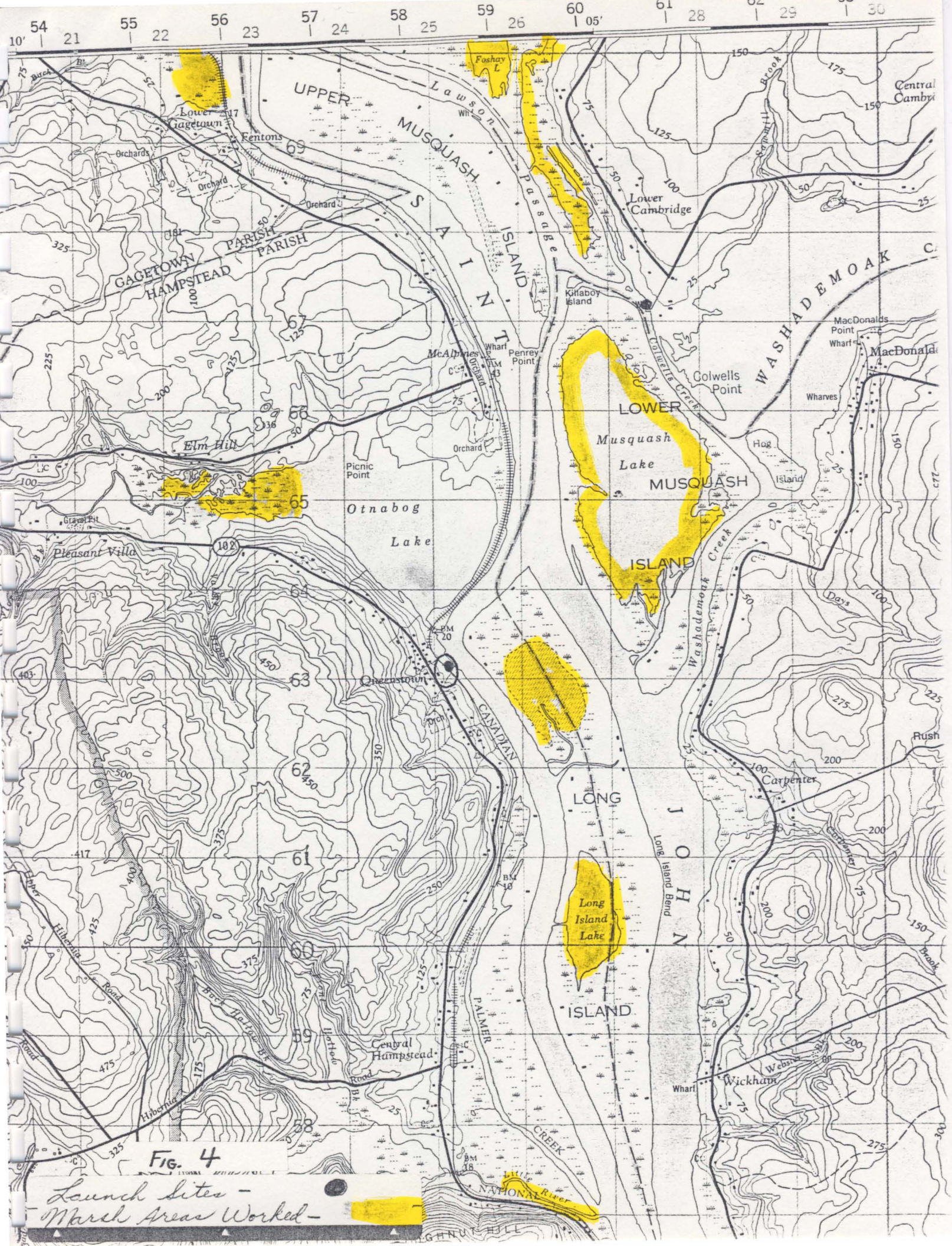


FIG. 4

Launch Sites -
March Areas Worked -

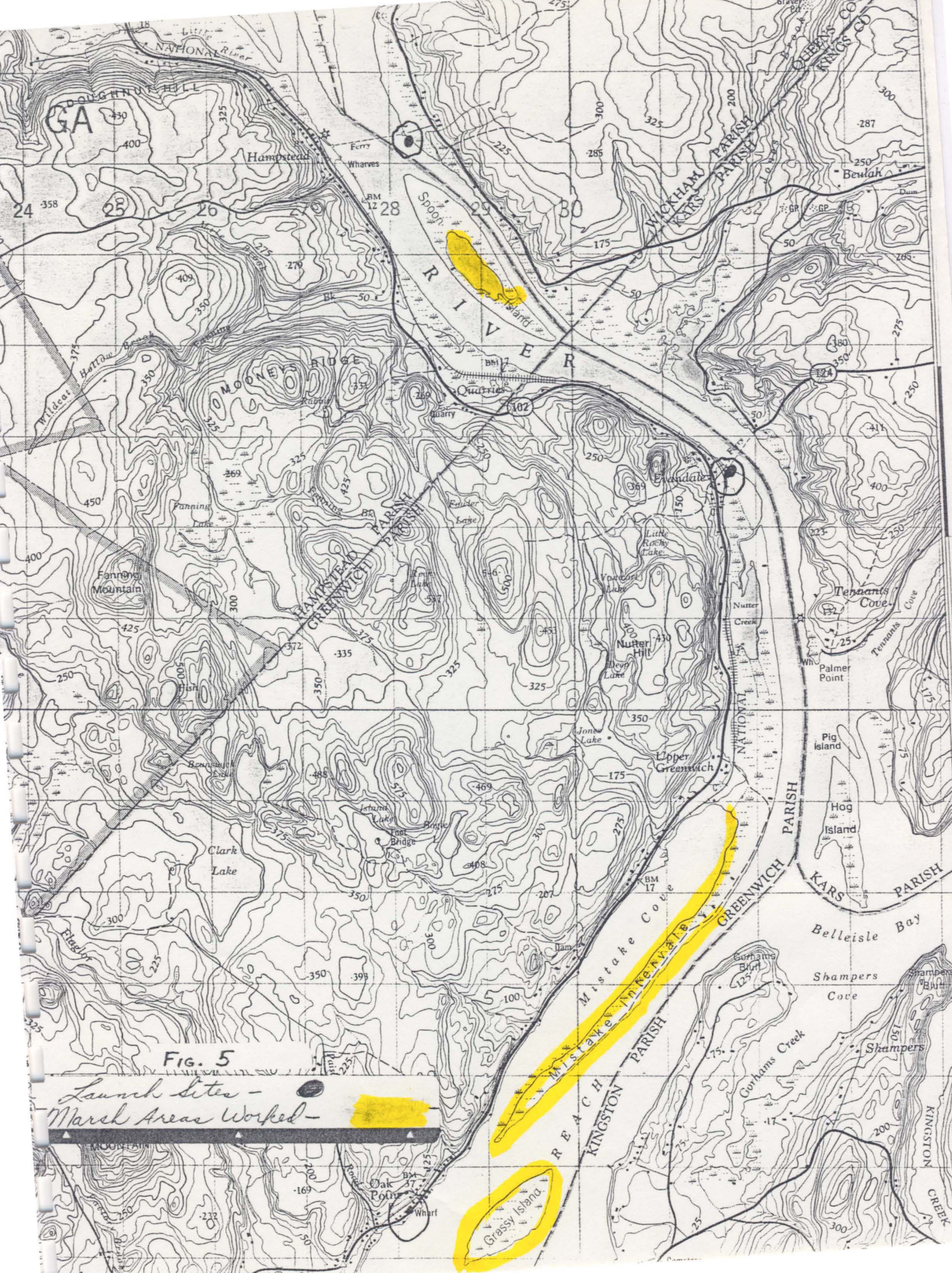


FIG. 5

Launch Sites –

Marsh Areas Worked –

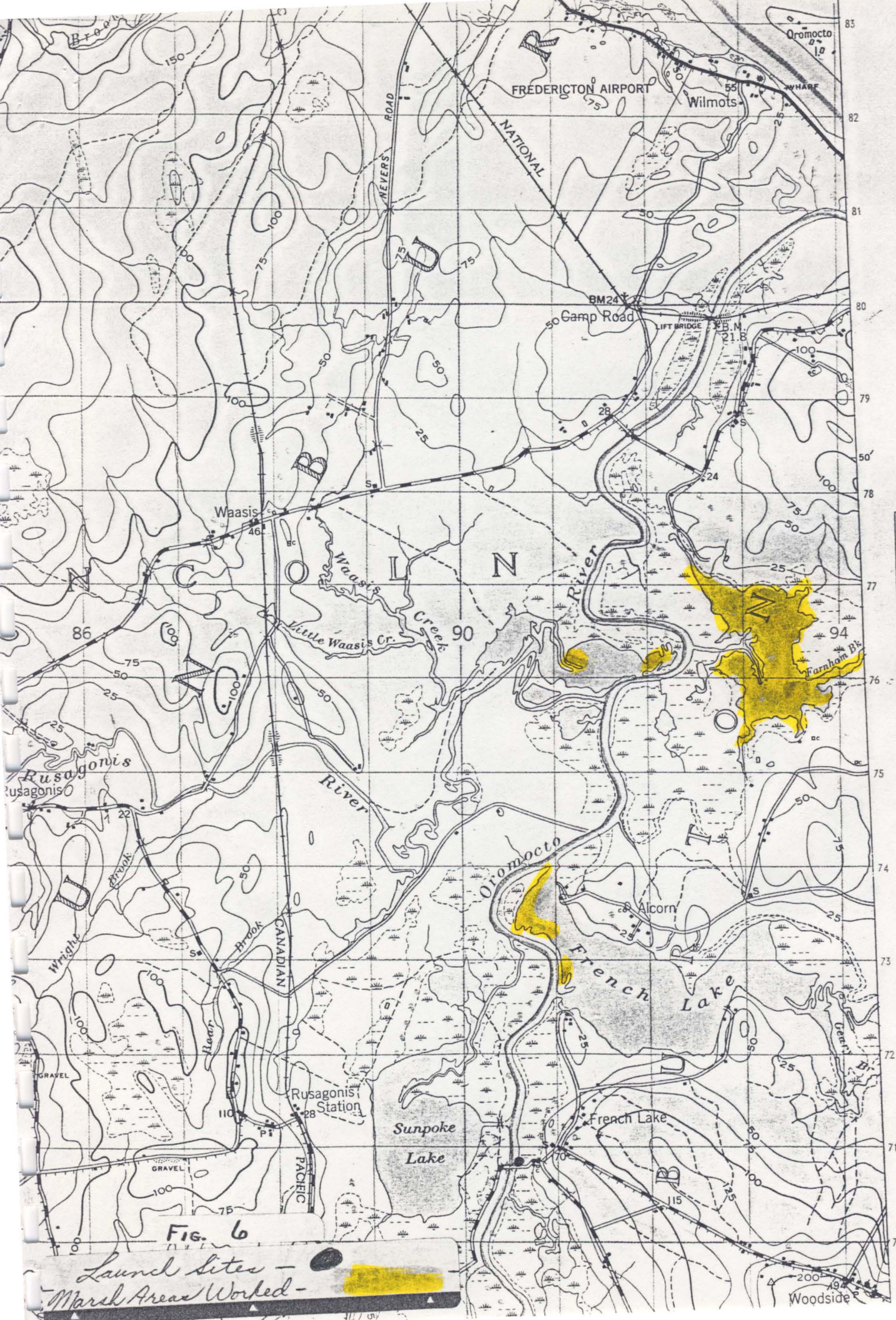


FIG. 6

Launch Sites –

Marsh Areas Worked –

Attachment 1. - Equipment List for Jemseg, New Brunswick
Banding Station, July/August 1988.

The airboat and all nightlighting equipment is stored and maintained at Parker River NWR, Northern Blvd., Newburyport, MA 01950 (508) 465-5754, John Fillio, Refuge Manager.

(1) 18' Panther Airboat
(1) 2000 Watt 120 volt Homlite generator
(1) 21' dual axle boat trailer
(1) Usually this refuge provides a 4-Wheel truck

Airboat Tool Box Equipment
(1) 16pc drive socket set (7/16" - 1½") + 5/8" deep well socket
(1) 12" pipe wrench
(1) 12" crescent wrench
(2) 8" crescent wrenches
(1) 10" crescent wrench
(1) 10" vise grips
(1) 5" vise grips
(1) needle nose pliers
(2) regular pliers
(2) phillips screwdrivers, large & small
(4) regular screwdrivers, large to small
(1) claw hammer
(17) open end/box wrenches from 1 1/16 to 3/8 inches
(1) pack of medium wire connectors
(1) pack of medium eyelet wire connector ends
(1) pack of medium washers
(1) boat plug chain
(1) tube of silicon seal w/spout
(1) sparkplug socket
(2) rolls of electrical tape
(2) rolls of medium gauge electrical wire
(1) roll of medium gauge steel wire
(1) tire pressure gauge
(1) generator sparkplug
(2) airboat engine sparkplugs
(1) airboat engine thermostat w/gasket
(1) pack of assorted sizes sheet metal screws
(8) assorted sizes of screw hose clamps
(1) screw driver rachet set ranging from 7/16" to 1/4" + 2" & 6" extensions
(3) lengths of rubber hoses, fuel line sizes
(2) backup plugs for truck/trailer
(*) fuses: 30 amps - 6
25 amps - 9
20 amps - 7

Airboat Box Equipment
(1) compass
(3) vise grip attachments for Wheaton lamps
(3) spare bulbs for front capture lights - 50 amp, 500 watt
(2) lengths of rope, 1 long nylon and 1 short length manila
(4) flotation vests
(3) flotation seats/cushions
(5) sections of metal PAP
(3) quarts of engine oil

(6) spare nets
(1) torque wrench/adaptor
(4) plastic flashlights
(10) flashlight batteries
(4) pr. of ear protection
(3) construction type blinking lights
(8) 6-volt batteries for above lights
(4) bungi cords
(1) roll of pink flagging
(2) extra air filters for airboat engine
(3) funnels, 2 med. size, 1 small size
(2) tie-down straps for airboat
(1) pr. boot dryers
(1) battery charger
(2) lengths of 3/32" steel cable, 1 short & 1 long
(1) extra high pressure oil cooler hose
(1) elctric winch remote control cable
(1) 45' electrical extension cord
(1) set of Wheaton lamp electrolyte filler, 2 bottles
(1) length of 1½" radiator hose approx. 2 feet long
(1) caulking gun
(1) tube of silicon caulking
(1) pack of coarse sandpaper
(1) flare gun, emergency w/ 13 flares
(4) emergency road flares, 3 - 5 minutes duration
(1) grease gun
(1) grease cartridge
(1) oil filter PF24
(2) elctric fuel pumps for airboat engine
(2) cans of WD-40 lubricant
(1) can of dark green spray paint
(1) roll of weather stripping
(4) pair of eye goggles/protection

Other Equipment
(3) light poles w/baskets
(1) alum. pole extension
(1) sand anchor
(1) sand anchor extension
(1) steel bar for turning sand anchor
(1) hand winch/come- along
(1) banding box stand
(1) boat anchor w/rope
(2) operator spotlights, 1 - 200,000 cp & 1 - 300,000 cp
(2) hand held spotlights
(1) complete banding box w/banding tools
(1) roll of duct tape

Attachment 2.

Contacts for the New Brunswick Airboat Banding Station:

Department of Natural Resources for New Brunswick,
Fish and Game Branch - Pat Kehoe, Wetlands Specialist
(506) 453-2440, Box 6000, Fredericton, New Brunswick E3B 5H1

Canadian Wildlife Service, Myrtle Bateman, Banding Coordinator for the Maritimes, Environment Canada, C.W.S. , Sackville, New Brunswick E0A 3CO (506) 536-3025

Ducks Unlimited, Canada, Andrew McGinnis, Biologist, Hodgson Road, Fredericton, New Brunswick (506) 458-8848

RCMP - Gagetown, New Brunswick (506) 488-2273

Lodging - Green & White Cabins, Lee Holyoke, Jemseg, New Brunswick, Canada (506) 488-2302.

Garages - Adamson's Garage, Mill Cove, New Brunswick (506) 488-2722
Craig Electric Co. LTD, Union Street, Fredericton, New Brunswick (506) 458-9402
Dick's Repair Shop LTD (All types of welding), Carmen Avenue, Fredericton, New Brunswick (506) 472-6517

Land Owners -

Upper & Lower Babbits Meadow & Round Meadow:
Thomas Gilbert
R.R. #1
Oromocto, New Brunswick E2V 2G2 (506) 357-8002

Upper Babbits & Round Meadow:
Eugene Burpee
R.R. 1
Oromocto, New Brunswick (506) 357-6079

Boyd's Marsh:
Earl Webb
General Delivery
Lower Gagetown, New Brunswick E0G 1V0 (506) 488-2485

Foshay Lake:
Chet Campbell
C/O Tractors & Equipment
Smythe Street
Fredericton, New Brunswick E3b 3H6 (506) 488-2860

Oromocto River Launch Site:
Eugene Hanson
R.R. #3
Oromocto, New Brunswick E2V 2G3 (506) 357-3730

Waterfowl Banding Project

CWS Airboat

Crew Member

W. R. Barrow

The Canadian Wildlife Service airboat stationed at Sackville, New Brunswick operated eighteen nights in 1988. Deviating somewhat from previous duties, this year's operation consisted of assisting five biologists throughout the region.

Lead Shot Analysis Program

Lead poisoning is of major importance to waterfowl populations considering that annual losses of 1-3 million birds are estimated for North America. In 1988 a co-operative group involving Acadia University, Nova Scotia; Canadian Wildlife Service, Sackville, N.B.; and the New Brunswick, Nova Scotia and Prince Edward Island provincial wildlife agencies was formed. Investigations would determine the degree of contamination and source in waterfowl and associated habitat. Preliminary analysis have indicated 8% of the Black Duck and 5% of the total blood samples for all species had minute traces of lead, 8 % of the bottom samples contained one or more lead pellets, and 7% of the gizzard samples contained lead pellets. To date there are no records for lead shot poisoning in the Atlantic Region. The CWS Airboat was used to collect blood and tissue samples on eight marshes throughout Nova Scotia, New Brunswick and Prince Edward Island. Dr. Francis Schwab and Richard Daury of Acadia University are tabulating the Nova Scotia and Prince Edward Island data. Al Hansen and Pat Kehoe, Dept. of Natural Resources, Fredericton, New Brunswick are summarizing the New Brunswick data. Canadian Wildlife Service Biologist Myrtle Bateman is co-ordinating all efforts.

Wood Duck Release Program

Eldon Pace, Manager of the Shubenacadie Wildlife Park, Nova Scotia initiated a Wood Duck propagation program from 1953-1987 and has hatched over 20,000 young. Ducks Unlimited became involved in 1976 experimenting in different release techniques and released approximately 3,000 birds throughout the Atlantic Region. Recent problems with in-breeding resulting in decreased production, albinism etc. have hampered the program. In 1988, 50 male Wood Ducks were captured with the airboat to increase and enrich the gene pool of the breeding population. The airboat was again used at the DU Green-wing Day field trip. Keith McAloney and John Wile, Biologists, Ducks Unlimited, Amherst, supervise both programs.

Media blitz and inventory work

At the request of Pat Kehoe, Biologist, Dept. of Natural Resources, Fredericton, N.B. the airboat was used to enhance public awareness for the banding program conducted by both Canadian and USA airboat crews. Newspaper and television personnel were invited to participate in a banding operation. The coverage provided was instrumental in more positive public feedback.

Three areas on the Portobello National Wildlife Area were surveyed for brood production by the airboat and the following day by helicopter. If comparable, the night-time effort would be more cost efficient. The aerial survey was incomplete due to fog, however for those areas surveyed the results were identical. Many factors should be considered and further investigations may prove positive.

Black Duck Nasal Tag Study

Dr. Norm Seymour and Shannon MacLean, Masters student, Saint Francis Xavier University initiated a Black Duck study in the Antigonish Watershed. Broods moved from nesting habitat to the estuary system and were observed daily to determine production mortality, behaviour etc. To assist in this effort approximately 60 Black ducks were captured and fitted with color coded nasal tags.

Black Duck Telemetry Study

The second and final year for a two year radio marking study was completed in 1988. Forty-four Black Ducks were captured and fitted with transmitters on the Shepody NWA, Albert Co., New Brunswick. Natural mortality, hunting and crippling losses, and behaviour aspects were determined. Supervising CWS Biologist, Gerry Parker was assisted by summer student Danny Sears.

Banding Results

Twelve species of waterfowl and a total of 671 birds was captured and banded with the CWS airboat. Forty-five percent of the waterfowl banded were Black ducks, 25 percent Blue-winged Teal and 17 percent Green-winged Teal. Nine species of which Wood Ducks, Wigeon and Ring-necked Ducks were most numerous comprised the remaining 13 percent.

The age breakdown was unusual for several species captured. One hundred percent of the Mallards, 88% Wood Ducks, 51% Green-winged Teal and 40% Blue-winged Teal were adult birds - a result of habitat preference for molting birds rather than an indicator of population trends. The age and sex breakdown by species is presented in Table 1.

Five Gadwall were captured near Amherst, Nova Scotia. The first banding record for this species was a night-lighted bird near Fredericton, N.B., 27 July 1968. Since then 43 Gadwall have been captured on 6 occasions. Unlike other western species, Gadwall are just surviving in the Atlantic Region.

The Antigonish banding sessions were interesting. After warm-up netting on American Eel, one advanced to waterfowl and snapping turtles. A very large and aggressive snapper made life interesting for one netter thinking he had a Black Duck.

Recommendations

Maintenance and modifications are routine considerations and those for 1989 are no exception.

Different axles with unmatched tires and hub combinations support the boat trailer. Repairs are complicated and lengthy. Standardization of this system is basic to boat operation.

Changes in gasoline octane rating over the boats life have caused excessive engine wear. After costly repairs in 1988 new maintenance and servicing specificiations are required.

A serious stress fracture on the trailer frame required repair. Visual inspections when the boat is removed are necessary.

Purchases for 1989 should include a high capacity fire extinguisher, 20' jumper cables, and a set of strobe lights with supports. Two new dip nets are required.

Minor repairs are required for the bilge pump exhaust and lighting system. A new heavier duty electric winch is also recommended.

Table 1. Age and sex breakdown of waterfowl banded with the CWS Airboat 1988

Species	Local			Hatch Year			After Hatch Year			Unk.	Total
	M	F	T	M	F	T	M	F	T		
Mallard	–	–	–	–	–	–	4	1	5	–	5
Black Duck	87	77	164	59	50	109	12	14	26	1	300
Green-winged Teal	4	1	5	21	29	50	37	19	56	–	111
Blue-winged Teal	20	26	46	25	29	54	51	14	65	–	165
American Wigeon	9	8	17	1	2	3	4	2	6	–	26
Northern Shoveler	4	1	5	–	–	–	1	–	1	–	6
Northern Pintail	–	3	3	3	3	6	–	–	–	–	9
Wood Duck	2	–	2	–	–	–	11	3	14	–	16
Ring-necked Duck	10	6	16	–	–	–	4	2	6	–	22
Gadwall	2	3	5	–	–	–	–	–	–	–	5
Common Goldeneye	2	1	3	–	–	–	–	–	–	–	3
Hooded Merganser	–	–	–	–	1	1	–	2	2	–	3
Totals	140	126	266	109	114	223	124	57	181	1	671

Canada Goose Banding - P.E.I.

October 1 - November 15, 1988

Crew Members

W. R. Barrow

Introduction

Rocket nets were used to capture seventy-two migrant Canada Geese on Prince Edward Island during the fall season 1988. This was the third consecutive seasonal banding effort where both bands and neck collars were fitted on birds. A summary for this segment of the neck collar program and previous efforts is presented in Table 1.

The early banding efforts (1983-1985) were initiated by the P.E.I. Fish & Wildlife Branch to determine if the spring and fall flights were different populations, in addition to normal banding expectations. The neck collar program was initiated in 1983 by Cornell University, N.Y. Biologists. In 1988 New Jersey personnel requested morphological measurements on captured geese. A copy of the proposal for these two studies is included with this brief.

Discussion

Post season banding on P.E.I. is difficult but not impossible. Many factors including hunting pressure, farming practices, goose behaviour, weather and unlimited food sources along the coast and in the vast agriculture zone determined success. Banding within the Orwell Sanctuary during the hunting season would appear an ideal situation. However geese are very alert and the presence of strange people and/or equipment will influence their behaviour. Hundreds of geese were observed sitting around a well camouflaged net with only the odd goose venturing within the bait limits. On another occasion a family unit was watched crossing a field towards the net area. They would not step over the lead wire and detoured around it. Contrary to

these situations, geese were observed sleeping on the net but only when completely at ease and familiar with it. The feeding behaviour of some geese were a detriment to success. When feeding, aggressive birds would drive others from the net area. Waiting for the ideal situation, ie. when good numbers of birds are at ease loafing and feeding in front of the net is recommended. After firing a net, geese did not return for a one or two week period or indefinitely. Waiting a day or two for the better shot may be most productive. In 1988 the range for net success was 3-35 birds for 5 shots averaging 14 birds. In 1985 our most successful effort to date, 15 shots were used to capture 120 geese for an average of 8 birds.

Weather more than all other factors controlled the duration and success of the rocket net exercise on P.E.I. In 1987 geese were captured early in the trapping season and two blizzards terminated the banding effort. This year was the exact opposite with no success early and open conditions for the entire period. Trapping was terminated after several light snow falls in November and in anticipation of winter conditions. Extending the trapping season by leaving nets on site until the bitter end may prove very productive but at the cost of equipment remaining in the fields over winter. The potential for an early freeze up when geese are forced from the area exists but has yet to be a factor. Daily weather situations such as rain, light snow, and wind were factors in net performance. Rain and snow could double the net weight and prevent total extension. Wind could blow a net sideways or cause it to billow allowing geese to escape.

Farming activities and crop rotations will influence station success. Similar to previous years some minor damage to station equipment was caused by farm machinery. Nets were set only on the north side of the

bay, due to crop rotations. While some south side fields could be trapped, they were either protected by scare cannons or were unsuitable. Geese would move into harvested potato fields especially after a frost to feed on small soggy potatoes. A wet season and muddy conditions make banding impossible on these fields.

Two funnel traps were maintained to capture Black Ducks and other waterfowl. Initial success was encouraging however the birds soon became trap wise and daily catches were unpredictable. An interesting catch one day included nine Black Ducks and one raccoon.

An increased effort in this department would be very productive. The total ducks banded by species with age and sex breakdown is presented in Table 2.

The mobility of Canada Geese and the availability of an unlimited natural food source makes baiting difficult. Geese have literally miles of eel grass (Zostera marina) flats, tens of thousands of acres of stubble fields and pasture lands and as previously mentioned unlimited harvested potato fields. Trying to attract these birds with a few hundred pounds of grain and whole corn is often more luck than good management. By taking advantage of the sanctuary situation and using a more aggressive technique it is possible to band more geese. On one occasion geese were pushed from several feeding areas within the Orwell Sanctuary until they landed in a field with a net. While this procedure was successful, it does approach harassment and should be used only if desperate.

The Orwell Bay Sanctuary is now a traditional stopover for large numbers of Canada Geese. The Eugene McKenna beef farm situated within this area has similar status and is used extensively for grazing on pasture grasses

or for shelter and loafing areas. During this most recent banding effort 95% of the geese were captured there. In addition large numbers of Black Duck utilize the farm. In the past, several incidental captures of Black Ducks were netted with Canada Geese. Nets specific for geese and blacks are possible on this farm.

The efficiency and costing for rocket netting on P.E.I. is not encouraging. The cost/bird ($76) for 1988 and the breakdown is shown in Table 3 A&B. Compared to previous programs this year's costing was less than the five year average of $84/bird, however, the added data return from a neck collar program should be considered. The man-days required for this operation has unrealistic potential. In 1988 a technician was employed for forty-five days to do less than one day's work. Some intangible duties included completion of a slide presentation. banding with interested hunters, and a banding demo and talk with a school class.

The feedback from the neck collar program is just starting to pay dividends. In 1988 alone P.E.I. wildlife division personnel recorded 94 sightings. Fourteen were from the 1987 season and ten from the 1988 spring effort, the remainder either foreign recoveries or P.E.I. birds of the present banding operation.

In <u>one year</u> and <u>for only P.E.I.</u> the recovery percentage for the 1987 program exceeds <u>50 percent</u>. This was a fall banding effort with 10 sightings the following spring and fourteen during the 1988 fall operation. The potential for additional sightings along the flyway is encouraging and remarkable considering that only 18 P.E.I. band returns were on record prior to this program with a recovery rate of less than 10 percent.

Manpower, costing, efficiency results and other factors should be considered in a suggested program review. In any event the equipment (see attached inventory) and experienced personnel should be utilized. Rocket netting is possible on a local basis at Fort Beausejour, Amherst Point and at Northport. In addition, the potential for banding geese at Baikie Lake, Labrador and Black Ducks at Codroy, Newfoundland should be considered.

Recommendations

1. The Eugene McKenna farm is unique for goose utilization. Three nets should be set on this farm on day one of the program.

2. Black Duck banding efforts can be increased but should not complicate or interfere with the goose bandings.

3. Banding in late November and December could double production.

4. All nets should be set with the prevailing wind. It is useless to fire a net with snow on it.

5. Nets may have to be cleaned of ice and snow and baited at night to eliminate disturbance.

6. Patience in net deployment will increase efficiency.

7. Nets on the south side of Orwell will keep geese honest. Depending on crop rotation, the Rollo Bay area could contribute to the program

Rollo Bay contacts David Mullally teacher 687-3001

Peter Townsend farmer 687-2040

or 687-3353

8. The three wheel ATC and trailer are essental to the program. A spare tire and rim should be purchased for the trailer.

9. Whole corn and barley were used for bait and were satisfactory.

10. A portable radio on loan from the P.E.I. Fish & Wildlife Branch was invaluable when assistance was required.

11. Woods Cabins at Orwell are ideal for lodging. Some advance notice is suggested (for maintenance reasons) if a late season program is anticipated phone 902-651-2620.

12. Additional anchor stakes are required.

Retrospect

At the 1987-88 Wing Bee held at Delta, B.C., rocket netting was discussed with Jack Smith, Technician for Western and Northern Region, Saskatoon, Sask. and Rick McKelvey, Biologist, Pacific and Yukon Region, Delta B.C. Rick's work included netting Snow Geese, Canada Geese and Whistling Swans while Jack worked with White-fronted and Canada Geese.

The prairie effort directed mainly at white-fronts has been very successful. Banding is carried out on traditional roosting bars at numerous lakes during migration. Baiting is not necessary. In exceptional years as was 1988 many lakes dry up limiting habitat and increasing success. Banding parties are set-up to handle 100-500 geese per shot and successive shots the same day are possible.

Snow Geese are the target species for the west coast rocket net effort. Geese are captured on the extensively managed wildlife area virtually within sight of the head office complex. Hundreds of geese are captured, bagged, and moved to holding boxes in a large barn for processing. Apparently Snow Geese have good memories and will shy away from the capture field for up to a year.

Three goose species in different flyways and situations with different response behaviour, the only constant being the rocket net capture method. All regions are working with large numbers of waterfowl, so why are the western efforts more productive? The equipment used is similar to a degree: nets are larger (30' x 60') but use less rockets and deploy perfectly, whereas our nets are inefficient even with extra rockets.

Old or different propellent could be one explanation. Some of the western rockets appear identical, but most are smaller and set-up differently. A rocket is being forwarded to this office for comparison.

The set-up is the most obvious difference. Our western colleagues use a gang of nets 200-300 feet in length compared to our 40 foot nets scattered in different fields. Support crews are set-up to handle large numbers of birds and a banding quota is possible in one or two days work. A similar set-up on P.E.I. in 1988 may have doubled production, but in only two days work virtually eliminating manpower and costing commitment.

Closer to home, netting Snow Geese along the St. Lawrence River and Canada Geese in the eastern USA has been ongoing for many years with outstanding success. Observing and/or assisting in such programs may be invaluable to future CWS Atlantic Region programs.

Acknowledgements

Eugene McKenna, Pat Murphy, and Marcellus MacDonald permitted work activities and access to their farmland. Without their support the banding program would be impossible.

The P.E.I. Fish & Wildlife Branch assisted in all aspects of the program. Special thanks to Clare, Spud, Buddy, Art, Colin and friends who assisted in banding.

John Maxwell and Randy Hicks, CWS Sackville helped set-up the bait traps and in moving equipment to P.E.I.

The hospitality by Ivan and Doris owners of Woods Cabins in Orwell and many local hunters and the volunteer work from Jack Stone was greatly appreciated.

Table 1. Summary of P.E.I. Goose Banding Efforts 1983-88

Date	Species	HY M	HY F	AHY M	AHY F	U	Total
1983(S)	Canada Goose	-	-	11	13	-	24
1984(S)	Canada Goose	-	1	8	12	-	21
1985(S)	Canada Goose	-	-	60	60	-	120
1986	Canada Goose			NIL			
*1987(F)	Canada Goose	12	17	7	9	-	45
*1988(S)	Canada Goose	-	-	41	52	-	93
*1988(F)	Canada Goose	13	32	11	15	1	72
Total		25	50	138	161	1	375

* goose neck collar program
S - spring banding
F - fall banding

Table 2. Age & Sex breakdown for waterfowl bait trapped at Orwell Bay 1988

Species	HY M	HY F	AHY M	AHY F	Total
Mallard	6	-	1	1	8
Black Duck	77	46	7	10	140
Green-winged Teal	4	5	4	5	18
Pintail	1	-	-	-	1
					167

Table 3 A. Cost analysis for the 1988 fall goose banding effort on P.E.I.

Wages	Bait	Hardware	Cabin & groceries	Gas	Travel meals-lodging-ferry	# of Geese	Cost/ Goose
3200.00	281.00	87.52	805.00	533.00	600.00	72	$76.48

Table 3 B. Costing P.E.I. goose banding 1983-88

	1983	1984	1985	1987	1988[S]	Five year average
Cost/bird	39.17	157.33	71.01	95.60	58.85	$84.39

Listing of neck collar and band #'s fitted on P.E.I. Canada Geese 1987-88

1987(F)	neck collars	1XK1 - 1XK0	698-83701-83745
	(45 birds)	2XK1 - 2XK0	
		3XK1 - 3XK0	
		4XK1 - 4XK0	
		5XK1 - 5XK5	
1988(S)	neck collars	5XK6 - 5XK0	628-75035 - 75061
	(93 birds)	6XK1 - 6XK0	698-83978 - 84000
		7XK1 - 7XK0	718-15535 - 15550
		8XK1 - 8XK0	728-15422 - 15450
		9XK1 - 9XK0	
		0XK1 - 0XK0	
		1XM1 - 1XM0	
		2XM1 - 2XM0	
		3XM1 - 3XM0	
		4XM1 - 4XM5	
		4XM7 - 4XM9	
1988(F)	neck collars	5XY1 - 5XY0	698-83746 - 83800
	(72 birds-53 collared)	6XY1 - 6XY0	698-83801 - 83817
		7XY1 - 7XY0	
		8XY1 - 8XY0	
		9XY1 - 9XY0	
		0XY1 - 0XY3	

Rocket net equipment inventory 1988

6 nets (3 sm. - 1 med. - 2 lg.)

1 detonator

1.5 mi. wire

2 wire reels

22 rockets

125 propellent charges

800± neck collars

misc. small tools

Neck Banded Canada Geese in the Atlantic Flyway

Canada geese inhabiting eastern North America comprise what is commonly referred to as the Atlantic Flyway population. Present estimates indicate that there are in excess of 1 million geese in this population after the close of the waterfowl hunting season. This represents a 2 1/2 fold increase in population growth since 1950 and is viewed as one of the major accomplishments of wildlife management in the 20th century.

Geese in the Alantic Flyway nest in the vast sub-Arctic areas of Canada between Hudson Bay and the Atlantic Ocean. Unlike most waterfowl, their breeding habitat remains essentially undisturbed. Historically, Canada geese migrated as far south as was necessary to find adequate food and open water roost sites. This resulted in large numbers of birds wintering in the coastal areas of North Carolina with some traveling as far as South Carolina and Northern Florida. Today the majority of our Canada geese winter on the Delaware-Maryland peninsula. Despite the impressive gains in total numbers overall, the number of geese migrating as far south as North Carolina had declined.

A variety of factors are interacting to create the changes in the distribution in Canada geese in the Atlantic Flyway.

(1) Changes in food habits:

Traditionally Canada geese fed primarly on aquatic and moist soil vegetation. This green diet, often referred to as browse, is still the mainstay of the Canada goose during warm weather and on its breeding grounds. However, beginning in the 1940's Canada geese began to utilize waste grain

(corn, soybeans, etc.) to supplement their diet. This shift had a variety of repercussions - perhaps the most pronounced was enabling the geese to withstand more severe winter temperatures. This is possible because of the higher energy content of grains compared to browse.

(2) Changes in habitat:

Changes in habitat go hand in hand with changes in diet. Agricultural practices have changed throughout the range of the geese, with increasing amounts of grain being grown further north. Between 4 and 5 bushels of corn are spilled for each acre of corn harvested. Modern farming requires larger fields which benefit geese by providing more snow-free and secure feeding sites. Refuges both natural and man-made exist throughout the migration and winter range of these geese. Many of the man-made refuges were established about the same time that the changes in goose distribution began.

(3) Differential Survival:

The role which hunting mortality plays in determining the distribution of geese is not completely understood. It has been suggested that those geese which migrate further south are exposed to more hunting pressure than those individuals remaining further north. This difference in mortality rates has served to favor those groups of geese with shorter migration routes. For example, geese which winter in New York can only be hunted in Canada and New York while those which travel to North Carolina can be hunted in Canada, New York, Pennsylvania, Maryland and North Carolina. The group with the lower mortality rates would increase faster - all other factors being equal

(4) Other factors:

Other factors are undoubtedly playing a role in determining goose distributions. For example, it seems logical that weather is influencing, to a degree, the distance which geese need to migrate to survive the winter. Another factor is the introduction of resident breeding flocks of Canada geese throughout the migration and winter range of the population. These flocks act as decoys to migrating geese and induce migrating Canadas to visit new areas along the way.

The neckband study:

In an effort to examine these and other issues that are basic to the long term management of this resource, an intensive study of Canada geese in the Atlantic Flyway is being initiated. Agencies involved in the study include the U.S. Fish and Wildlife Service, New York State Department of Environmental Conservation, Pennsylvania game Commission, New Jersey Division of Fish, Game and Wildlife, Maryland Wildlife Administration, Delaware Department of Natural Resources and Environmental Control, North Carolina Wildlife Resources Commission, and South Carolina Wildlife and Marine Resources Department. Biologists with these agencies will be trapping over 30,000 geese and marking them with 3 inch wide yellow neck collars. Each of these collars will be individually identified by a black number and letter code printed vertically on the collar. These collars can be read in the field by observers using binoculars and spotting scopes. Multiple observations of individually identified birds or groups of birds will be used to provide more detailed documentation of their movements, behaviour and survival. The project will be conducted from 1983 through 1988.

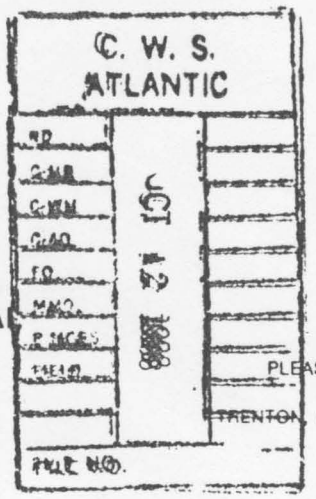
Persons observing marked geese are encouraged to report such sightings to their state waterfowl biologists or to the New York Cooperative Wildlife Reseach Unit, Fernow Hall, Cornell University, Ithaca, New York 14853 which is coordinating the study. For this information to be useful, observations must include the following data: color of neck band, complete code sequence (i.e. A 1 2 C), name, address, and phone number of observer, calendar date and time of observation, location of sighting (as specific as possible), size of flock (estimate), and habitat birds were in (cut corn field, wheat field, lake, pond, etc.). Hunters shooting neck collared geese are also encouraged to report the above information.

Let's protect our earth

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF
FISH, GAME AND WILDLIFE
GEORGE P. HOWARD
DIRECTOR



PLEASE REPLY TO:
CN 400
TRENTON, NEW JERSEY 08625

MEMO

TO: Canada Goose Morphological Study Participants

FROM: Paul Castelli

DATE: September 26, 1988

SUBJECT: Canada Goose Morphological Measurements

To date I have received Canada goose morphological measurement data for the following areas; Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Virginia, Ontario, and Quebec. To date, 2940 records have been entered into the computer. They are now being checked and edited. I am expecting data from New York and possibly Pennsylvania shortly.

This reference collection is the first step in discriminating between migrant and resident geese in the harvest. The next step is to measure harvested geese this fall. A data form is enclosed. Please photocopy it and distribute it to your field people who will be doing the measuring. A few points are worth emphasizing. They are as follows;

1- Dial calipers which measure to one-tenth of a millimeter are necessary. Forestry Suppliers Inc. (1-800-647-5368) has several suitable models if you do not have a pair on hand. Do not substitute with cheap sliding models!
2- Please make every effort to reduce variability by training your measurer(s) and using a minimum number of personnel
3- You can't measure too many geese. Measure every goose you can.
4- Be sure to measure geese throughout the entire season.
5- Target your measurements at adult geese. HY geese should be included if time permits.

If you're going to measure geese this fall please give me a call or drop me a note. If you have any questions please don't hesitate to give me a call.

Cape Breton Waterfowl Surveys - 1988

W. R. Barrow
M. C. Bateman

Caadian Wildlife Service
Sackville, N.B.

Introduction

Between 1967 and 1973, 3026 birds were banded on Cape Breton Island. Of that total 1795 (59 percent) were Black Ducks which were then, and continue to be the target species in Atlantic Canada. The station was terminated for several reasons:

(1) the Black Duck quota of 500 birds per season was never achieved (omitting 1972 totals, the yearly average was approximately 290 blacks;

(2) excessive travel costs and logistics compared to other stations of the day.

(3) hypothesis that Cape Breton birds could be intercepted and banded easier at other stations.

Discussion

In 1967 two years after The Co-operative Waterfowl Banding Program was initiated in Atlantic Canada, a Cape Breton bait-trapping station was started. During a seven year span (1967-1973), ten species of waterfowl, Black X Mallard Hybrids, and two species of marsh birds were banded. Approximately three thousand ducks were banded. Black Ducks, Blue-winged Teal, Ring-necked Ducks, and Green-winged teal were the most important species (Table 1). The night-lighting effort in Cape Breton was restricted by limited habitat to work, travel distance safety considerations, poor results and because a bait-trapping crew was working the area. Night-lighting was however, carried out on two occasions (Table 1).

Additional station information (duration, banders, comments) are summarized in Table 2. More data are available in the seven station reports in the CWS-Atlantic Region Library in Sackville, N.B. A copy of the 1973 report which is representative of all efforts is found in the Appendix. Extensive observations on weather, waterfowl, eagles and trapping technique are included in the station reports.

Two areas (Kenloch and McCormicks Corner) on Lake Ainslie were worked throughout the seven year bait trapping period (Table 3). Known specifically as a diving duck (ring-necks, goldeneye) production area, Lake Ainslie was also the most successful in capturing dabbling ducks. Most waterfowl observed was the unpredictable early flight of migrants. This situation was consistent for all of the trapping area, and the general concensus was that this was an area of low production with migrants justifying the trapping effort.

In August, 1988 waterfowl observations were conducted throughout the area of the old bait trap station to determine if a future banding effort was practical. Early morning and late evening counts were carried out on most areas to determine the presence of broods. Forty-six broods were observed within this zone with fifty percent located at three locations on Lake Ainslie. The Scotsville marsh at the head of the southwest Margaree River was not surveyed. However, it has traditionally produced around ten broods of waterfowl (pers. comm. T. Erskine, CWS Sackville). The species composition of broods in the area would be 4 Ring-necked Duck, 2 Goldeneye, 2 Black Ducks, 1 Merganser and 1 teal species (Table 4). The total production for the Lake Ainslie Area could exceed fifty broods as many were missed and not all areas were surveyed. This number of broods indicates a very important production area for the Atlantic Region.

Ground observations were carried out ten days later to document changes in waterfowl numbers and behaviour. Although brood observation were secondary and visits to many areas were at inopportune times for brood observations, additional broods were recorded (Table 4). Care was taken not to duplicate brood sightings.

With the exception of one area, waterfowl numbers varied little over the two week period of surveys and the results are considered representative of the local population. Brood development had progressed and many family groups were testing their wings flying between freshwater and saltmarsh habitats.

On August 28 the Middle River Marsh at Nyanza contained 75 Black Ducks, 10 Blue-winged Teal, and 8 Common Mergansers. The status of these Black Ducks is unknown and the flock is notable because it was the largest concentration of Black ducks sighted. Situated between the Whycocomagh and Baddeck marshes

where no blacks were observed, this area may have concentrated the total Black Duck production. In 1956 James K. Lowther banded waterfowl at Nyanza under the directin of Brian C. Carter, the Dominion Wildlife Officer for the Maritime Provinces. Only twenty-six ducks were banded (20 Green-winged Teal, 6 Black Ducks). However, a concentration of 600 Black Ducks was recorded.

On September 7, 8, 1988 parts of Cape Breton Island were surveyed with a CS206 aircraft. The coastline from Troy to Margaree Harbour, Lake Ainslie, the Margaree River, Indian Bay (Nyanza), the Mira River and the coastline from Glace Bay to St. Ann's Bay were surveyed. The sites trapped during the 1960's-70's banding operation had relatively good numbers of blacks (Table 5). A total of 143 blacks were recorded at Judique, Mabou Harbour and McCormack's Corner. The Mira River, and the shoreline at Indian Bay, two areas not previously trapped, also had flocks of blacks when surveyed. Those areas are too far removed from the previous trapping sites to be included in the same bait station. However, a second station on the east side of Cape Breton will be considered.

Several potential banding sites and all of the sites formerly banded were surveyed for waterfowl use and banding possibilities. Many of the areas were not used to their fullest potential and/or were overlooked. Appendix "A" includes a basic description with recommendations for each area.

Recommendations

Bait trapping in Western Cape Breton should be limited to the Lake Ainslie to Judique Intervale area. Travel outside this zone is too costly and time consuming.

All past banding crews were university bound in early September. An effort to find experienced banders able to work September is necessary. A six week banding period beginning mid August may prove beneficial.

Five trapping techniques should be employed in this area. Bait trapping and night lighting efforts have been successful in the past. To compliment these techniques a pointing dog can be used on the smaller areas. Several birds were captured this fall and areas have been identified for future work. Lake Ainslie is perfect for a drive trap operation. The trap and lead poles can be built during the nesting season so set-up time would be less than one hour. A diving-duck trap may prove more successful for Ring-necked Ducks and goldeneye.

Upwards to 100 adult male ring-necks and goldeneye moult on Lake Ainslie in late July. The drive trap technique could be tried on these birds.

An effort to identify the natal areas for staging Black Ducks on Cape Breton is important. If they are Newfoundland or Labrador birds, banding such birds in Cape Breton would be an indirect but the most efficient operation to date.

A complete data analysis of Cape Breton banded birds is required. A computer analysis for Cape Breton Black Ducks is now available from CWS Sackville. Data for the other species should be requested from Ottawa.

The expertise for quality transmitter work on waterfowl is now available at the CWS Sackville office. Western Cape Breton would be an ideal location for such work on our hinterland populations. The feasibility of such work would depend on Parker's transmitter study at Shepody NWA.

A well qualified birder should be employed for a six week period to monitor bird acitivity around St-Paul Island. Documentation of Newfoundland

avian export would be invaluable to understanding the Cape Breton waterfowl population and provide useful information on other bird life.

Banding local birds with dogs would enhance future data interpretation. To date 180 local blacks vs. 1514 hatch year birds have been banded. The recovery percentages for harvested birds are nearly identical (19.4 vs. 18.1). A similar trend (10.3 vs 10.5) is evident for American recoveries. Considering that only 29 local recoveries and 274 hatch year recoveries are on record this figure may be statistically unreliable in determining differential population characteritics and harvest or migratory patterns.

In addition to the Kenloch, MacCormick Corner and Baddeck River areas night lighting is possible in the Scotsville area.

When looking at natural unaltered habitat and associated waterfowl numbers the Lake Aislie area of Cape Breton is probably one of the most productive in Atlantic Canada. If similar habitat types exist in Cape Breton an effort to identify those is recommended.

The days of room and board at $25-30/week are over and probably not practical. Students will require a cottage with house keeping facilities. Units are available at Inverness Beach Vilage (902-258-2653), the present rate being $300.00/wk. A discount for duration and fall season seems logical. The Inverness Lodge (902-258-2193) is bulding new units for 1989.

Students working this area are in for a treat. A testimony by Alexander Graham Bell is indicative of this area - "I have travelled around the globe. I have seen the Canadian and American Rockies, the Andes and the Alps and the Highlands of Scotland; but for simple beauty, Cape Breton outrivals them all".

Table 1. Bait trapping and night lighting summary for Cape Breton Island, 1967 to 1973

Species	1967	1968	1969	1970	1971	1972	1973	Total
Bait-trapping								
Mallard	0	6	1	0	0	0	2	9
Black Duck	241	341	331	342	190	44	306	1795
Black X Mall. Hyb.	0	1	0	4	0	0	0	5
Green-w. Teal	6	40	38	36	48	104	45	317
Blue-w. Teal	6	21	72	42	61	123	108	433
Pintail	1	0	1	1	0	0	1	4
Ring-necked Duck	22	58	66	41	137	38	60	422
Wood Duck	5	1	8	4	2	1	2	23
Am. Wigeon	0	0	0	0	0	0	1	1
Am. Goldeneye	2	0	0	0	3	0	0	5
Com. Merganser	0	0	1	0	0	0	0	1
Pied-billed Grebe	0	0	2	1	0	0	1	4
Am. Coot	0	0	0	0	0	0	7	7
Totals	283	468	520	471	441	310	533	3026

Nightlighting	1969		1971	
	Lake Ainslie	Baddeck River	Lake Ainslie	Total
Black Duck	21	10	1	32
Green-winged Teal	29	5	-	34
Blue-winged Teal	35	38	-	73
Ring-necked Duck	9	6	-	15
	94	59	1	154

Table 2. Summary of Cape Breton Banding Stations 1967-73

Year	Duration	Students	Total Banded	(B.D.	R-n Duck	G.-w. Teal	B.-w. Teal)	Remarks
1967	1 Aug-15 Sept	Rex Coupland Richard Anderson	283	241	22	6	6	An unreliable supply of cracked corn and unpredictable waterfowl movements hampered trapping.
1968	2 Aug-12 Sept	Richard Anderson Simon Lunn	468	341	58	40	21	Unstable weather affected trap success and waterfowl movements. Travelling 250 mi/day and working 15+ hrs/day was beyond work expectations.
1969	2 Aug-12 Sept	Simon Lunn H. Hatfield	520	331	66	38	72	Whycocomagh produced well this year, however Baddeck and Nyanza were disappointments. Other sites consistent, however long days and excessive travel were required.
1970	2 Aug-13 Sept	Simon Lunn Philip Van Zoost	471	342	41	36	42	Concensus that station is a late area with migrants moving in Sept at close of banding. Station travel restricted to western portion of island.
1971	9 Aug-15 Sept	Wayne Larouche Richard Rose	441	190	137	48	61	A hurricane upset banding procedures dramatically.
1972	1 Aug-15 Sept	Richard Rose Ian Cameron	310	44	38	104	123	"Hurricane Dawn" completely wrecked station.
1973	1 Aug-15 Sept	Ian Cameron Cyril MacDonald	533	306	60	45	108	A good report for future reference. Representative of previous efforts.

Table 3. Breakdown for numerically important species banded by area at the Cape Breton Banding Station 1967-73

Location/Year	Black Duck	Ring-n. Duck	G.-w. Teal	B.-w. Teal
Lake Ainslie (2)				
1967	100	13	1	3
1968	84	58	3	-
1969	67	65	2	-
1970	118	40	1	1
1971	145	129	-	6
1972	41	38	65	47
1973	132	56	12	33
Mabou				
1967 L.S.	28	-	-	-
1968	59	-	-	-
1969	14	-	-	-
1970	79	-	-	-
1971	-	-	-	-
1972	29	-	-	-
1973	-	-	-	-
Judique Ponds (3)				
N-Catharine 1967	11	2	1	1
Centre 1968	14	-	9	15
S-McKays 1969	116	-	22	65
1970	86	-	32	39
1971	40	8	61	55
1972	3	-	39	76
1973	115	3	28	69
Margaree Area (2)				
1967	59	7	4	2
1968	126	-	19	6
1969	65	25	1	7
1970	59	1	3	2
1971	5	-	-	-
1972	-	-	-	-
1973	-	-	-	-
Indian Pt. Pond or Judique Interval				
1967	43	-	-	-
1968	33	-	2	-
1969	-	-	-	-
1970	-	-	-	-
1971	-	-	-	-
1972	-	-	-	-
1973	30	-	5	6

Table 3. Breakdown for numerically important species banded by area at the Cape Breton Banding Station 1967-73

Location/Year		Black Duck	Ring-n. Duck	G.-w. Teal	B.-w. Teal
Whycocomagh (3)					
Nyanza					
Baddeck	1968	25	-	6	-
	1969	69	-	2	-
	1970	-	-	-	-
	1971	-	-	-	-
	1972	-	-	-	-

Table 4. Brood observations within the Judique - Lake Ainslie zone of Cape Breton 14-16 August 1988

Date	Location	Species	Number	Age
14 Aug 88	Indian Pt. Pond	1 Red-b. Merganser	7	2B
	(Judique Intervale)	1 Black Duck	5	2C
		2 Black Duck	12	3+
		Black Duck - 2 broody females		
14 Aug 88	McKays Pond	1 Ring-n. Duck	3	2B
		1 Black Duck	6	2C
		1 Black Duck	5	2C
		1 Blue-winged Teal	6	3+
14 Aug 88	Judique Ponds	1 Black Duck	3	2C
		1 Black Duck	6	3+
		(2 blacks, 1 pintail unknown status)		
14-15 Aug	Livingstones Pond	1 Black Duck	6	3+
		1 Black Duck	7	3+
		1 Blue-winged Teal	4	3+
		1 Green-winged Teal	12	3+
14 Aug 88	Livingstones Pond	1 Black Duck	6	3+
		1 Black Duck	7	3+
		1 Blue-w. Teal	4	3+
		1 Green-w. Teal	12	3+
14 Aug 88	Campbells Brook Pond	NIL		
15 Aug 88	Murphys Pond	NIL		
15 Aug 88	Sutherlands Pond	NIL		
15 Aug 88	Johnny Bans Ponds			
	#1 Front-barrier beach	NIL		
	#2 Circular	NIL		
	#3 Rectangular	1 Black Duck	3	2A
15 Aug 88	Indian Point Ponds (Mabou Harbour)	NIL		
15 Aug 88	SW Mabou Estuary	2 C. Merganser	18	3+
		2 Black Duck	13	3+
		2 Black Duck	15	3+
		(1 Mallard - 1 Green-w.Teal unknown status)		

Table 4. Brood observations within the Judique - Lake Ainslie zone of Cape Breton 14-16 August 1988 ...Cont'd

Date	Location	Species	Number	Age
15 Aug 88	Mabou River	1 Blue-winged Teal	5	3+
		3 Blue-winged Teal	18	3+
		6 Black Duck	36	3+
		2 Green-winged Teal	11	3+
	Rankins Pond	1 Black Duck	4	3+
	MacNeils Pond	(single Green-winge Teal unknown status)		
27 Aug 88	NE Mabou River (cove area)	1 Black Duck	4	3
15-16 Aug 88	The Pond	1 Blue-winged Teal	7	3
		1 Blue-winged Teal	4	3
		1 Ring-necked Duck	4	2B
		1 Ring-necked Duck	5	2B
		1 Ring-necked Duck	7	2B
15-16 Aug 88	Lake Ainslie (Kenloch)	1 Ring-necked Duck	8	2B
		1 Ring-necked Duck	4	2B
		1 Black Duck	3	3+
		1 Ring-necked Duck	5	2B
		1 Ring-necked Duck	2	1B
		1 Ring-necked Duck	9	2C
		1 Ring-necked Duck	2	2C
		1 Ring-necked Duck	5	3+
		1 Ring-necked Duck	3	1B
		1 Ring-necked Duck	7	2B
		1 Black Duck	5	3+
		(1 Adult female Black Duck in molt)		
16 Aug 88	Lake Ainslie (McCormick's Corner)	1 Ring-necked Duck	7	1B
		1 Ring-necked Duck	4	1A
		2 Ring-necked Duck	4	2B
		1 Ring-necked Duck	8	2C
		1 Ring-necked Duck	9	2B
		2 Ring-necked Duck	10	2B
		(1 Ad. male Ring-n. Duck in molt)		
		(Black Ducks - 1 Blue-winged Teal unknown status)		
27 Aug 88	Scotsville	1 Goldeneye	1	1B
		1 Ring-necked Duck	6	2B
		1 Ring-necked Duck	7	1B
		1 Ring-necked Duck	6	2C
		1 Ring-necked Duck	6	3+
		1 Black Duck	4	3+
		(Black Duck broody female)		
		1 Adult Male Wood Duck		

Table 4. Brood observations within the Judique - Lake Ainslie zone of Cape Breton 14-16 August 1988 ...Cont'd

Date	Location	Species	Number	Age
28 Aug 88	Margaree River	1 Black Duck	6	3+
28 Aug 88	Whycocomagh	1 Ring-necked Duck	6	3
		(4 Blue-winged Teal unknown status)		
28 Aug 88	Middle River or Nyanza Marsh	1 Common Merganser	8	2C
		(75 Black Ducks - 10 Blue-winged Teal unknown status)		
28 Aug 88	Baddeck River	1 Ring-necked Duck	7	3+
		1 Blue-winged Teal	4	3
		1 Ring-necked Duck	6	3
		2 Ring-necked Duck	14	3
		1 Ring-necked Duck	4	2C

Table 5. Black Ducks recorded during an aerial survery of parts of Cape Breton Island - September 7, 8, 1988

Location	Number of Black Ducks Recorded
Troy	16
Judique	44
Mabou Harbour	63
McCormick (Lake Ainslie)	38
North Ainslie	14
Scotsville	0
Nyanza (Bras D'Or Lake)	42
East Bay	12
Mica River (to Victoria Bridge)	97
Glace Bay	24
Indian Bay and Sediment Pond	40 + 60
North Syndey	0

Appendix A. Basic description of some waterfowl habitat throughout Western Cape Breton

Indian Point Pond

Shallow saltwater tidal pond with extensive eelgrass beds and heavy algae bloom in sheltered areas making canoeing difficult. The interval habitat above the railway is freshwater with good pond and marsh diversity. Good area for working a dog and has potential for bait trapping. Be careful of poison ivy along railway bed.

McKays Pond

Freshwater pond with cattail and bullrush emergents and abrupt forest edge. Several hidden bays provided limited brood cover. Bait trapping and dog work is possible. The main highway forms part of the southern boundary and enhances access or observations. Some saltwater flushing is possible during storms or very high tides through a highway culvert.

Judique Ponds

Two ponds known as Catharine Pond & Judique Pond south, or Allan Lains Pond and Gillis Pond. Both are freshwater with limited emergents and subject to 100 percent tidal flushing during storms. Substrate is very mucky and trapping requires special technique. Waterfowl have traditionally used this area for night time habitat. Both are barrier beach ponds exposed to the elements and human disturbance such as swimming and gravel removal. The shoreline habitat with dominant emergent such as bullrush, cattail, spike rush and arrowhead is being destroyed by grazing cattle.

Campbells Brook Pond and Murphys Pond

Two small coastal ponds which receive tidal influence daily. They are situated near a new government wharf and a fish plant where continual disturbance would limit waterfowl utilization. No waterfowl were observed on these areas and both are unsuitable for trapping waterfowl.

Livingstone Pond

A large saltwater pond with vast eelgrass beds bordered by thick mixed woods forest. The inlet at Captains Brook provides excellent production habitat with typical freshwater emergents. Pond bottom is very soft and trap sites may be limited.

Sutherlands Pond

Small brackish pond surrounded by grass and spirea edge and stunted spruce. The seaward boundary is a fragile dune system posted for protection by Lands and Forests signs. Very poor access through a car dump before reaching a beautiful secluded beach. Bullrush is the dominant emergent and although pond has potential no waterfowl were observed.

Johnny Bans Ponds

The main most seaward pond is most diverse with many plant communities - flooded alder and willow and blue flag beds, cranberry, edged with cattail and bullrush interspersed with beds of yellow pond lily. Upland area is stunted spruce and extensive sand dune systems. Attractive and productive but subject to beach disturbance. No birds were observed.

Johnny Bans #2

Small circular pond surrounded by a solid spruce edge with alder willow spirea interspersed. Cranberry and water shield are common. Pond area in 95 percent choked with dense cattail and bullrush which eliminates most waterfowl utilization.

Johnny Bans #3

A rectangular pond with good interspersion of bullrush, open water, and pond weed communities. Pond edge is dense grass and abundant cranberry vines surrounded by stunted spruce. One Black Duck brood was observed.

Indian Point Ponds

Two small ponds edged with spartina and associated grasses with an upland coniferous forest. Ponds are salt with dense eelgrass beds. A low gravel and shale beach separates pond area from Mabou Harbour. No waterfowl were observed in area.

Southwest Mabou Estuary

A beautifully diverse area with excellent pond and channel interspersion. Salt marsh plant community is mostly spartina. Cattail is present in small stands. Tidal fluctuations may influence trapping however a dog banding exercise may also prove successful.

Mabou River Estuary

Intricate island pond and backwater system with cattail and bullrush edges on most ponds. Alder, willow, farm fields with elms, and mixed woods bounded by the highway and railway are important to this system. Good numbers of waterfowl and broods were observed in the estuary system and at Rankin and MacNeils Brook Ponds. Banding in this area should be productive.

Northeast Mabou

A small cattail cove near the entrance to Mabou Harbour appeared very productive and contained one Black duck brood. Trapping here and at the other Mabou sites would enhance the program.

MacDonalds Glen Pond

Situated between farm and fishing communities, and surrounded by stunning hulls it is probably the most scenic pond area in the region. Viewed from the Mountain Road, it is a spectacular sight. Gypsum banks surround the ponds and spartina - bullrush and cattail are the dominant plant species. The lower half is flushed with seawater daily. No waterfowl were observed but it has potential for future dog work.

Whale Cove Pond

Small pond located in hollow between highway and graveyard - probably most scenic in Nova Scotia. Flushed by daily tides, emergent bullrush grew only on the most distant section from the sea. No waterfowl were observed on area and status is low.

MacKinnons Beach Pond

Situated behind dune system near cottages and farming influence. Pond is 95 percent open with limited pondweed and cattail vegetation. Human disturbance may be a factor however pond is suited for dog work. No birds were sighted on area.

Margaree River System

Large island and river system with dense grasses, elms, alder, and flooded swamp conditions with little defined edge. Past bait trapping efforts had limited success. Further investigation is required for this area.

Lake Ainslie System

Large freshwater lake known for brood production and waterfowl utilization. The Kenlock, Scotsville, The Pond and MacCormicks Corner areas are suited for various waterfowl banding techniques. Bait trapping and nightlighting have been successful in the past.

Banding Report

Cape Breton

1973

Crew Members

Ian Cameron
Cyril MacDonald

Equipment

The following equipment is on store at the Department of Lands and Forests depot, pole barn, top floor Baddeck.

Wire traps: 13 traps of varying sizes all are tagged. The tags indicate size of trap and the location at which it was used this season. All traps but one are in good condition for several seasons yet. Old net on four medium traps will have to be replaced next year.

Poles: Sufficient for traps in store and approximately 15 extra, all in good condition.

Net: About 2 fathoms of 12 foot net, more than enough to replace old net.

Burlap: Approximately 15 - 20 feet of burlap, four feet wide.

Sign posts: 5 sign posts and 2 signs minus posts, sufficient new signs will be needed next year.

Bottoms: 3 - 2 small size, 1 large

Corn: 5 bags cracked corn.

Also on store are the poles necessary to construct floating trap.

Equipment needed

Enough net wire and poles for 5 medium size traps: 1 to replace trap in poor condition. 2 to concentrate more on Judique Pond South. 2 to concentrate more on Mabou Marsh.

Also enough wire for one large 3 funnel trap to replace 3 funnel chicken wire destroyed - after a very productive and fulfilling life.

Predation Problems and Casualties

Cape Breton station has only one thing going for it, Predator problems! They are almost non-existant. Coons, a major pest on the mainland, are rare here. They did manage to kill two local male ring-necked ducks at McCormicks Corner, when the trap was moved to a new location the trouble stopped coming and so did the ducks.

Fox, also a troublesome critter on the mainland only once made itself evident at this station. When it raided one night a dryland set on Lake Ainslie.

It is possible that Bald Eagles which reside along the western shore of the Lake cause some trouble, however no direct evidence could be found.

Most casualties in Cape Breton occur from panic which ends up in the birds getting caught in the trap and with them either hanging or drowning. This year one green-winged teal.

Problems resulting from the species Homo Sapien were non-existent this year due probably to the inaccessibility of the trap locations, or their very presence in a populated area where people were seeing them all the time preventing theft. The young of the species proved a nuisance, coming around just to see what was going on.

Conclusions

Note: Cracked corn should be ordered by the Sackville office in sufficient time that it will have arrived at the Co-op nearest to where the banders are staying when they have arrived and are ready to start work.

Notify R.C.M.Police in Inverness before you start setting traps. Also when in Baddeck getting traps try and see District Forester, Allister Fraser, and District Biologist, Dan Banks. Both can be contacted through Lands and Forests in Baddeck and both may prove of assistance.

The following landowners should be contacted before banding operations proceed.

(a) Margaree Inlet - both farmer on opp. hill above road, and John Don MacDonald, name on mail box (Cyril's father)

(b) Judique Pond South - Mr. Gillis, house marked on map - across

(c) Catherine Pond - shore road from access road.

(d) Judique Interval - people in first house on last drive on shore road.

Generally you will have no worries, they are all interested and very willing to lend assistance. Often they will stand and talk about ducks of by gone years, that want to make you sit down and cry!

We would like to thank Darryl Gillis (14 yrs old) for his assistance. He is enthusiastic and lent a helping hand. Often he led us to where we would find ducks, and wou,d tell us before we got there just what could be there. Crew leaders in the future will find him of great assistance - see his father for access to Catherine Pond.

General

1. Bird banders will find evening and/or early morning observations in Cape Breton very beneficial and most necessary. In reading old reports from 1968 on I have found ducks have shifted their major areas of concentration especially on Mabou Marsh and Judique Pond South. Old reports are helpful in telling you how well your traps are fishing.
2. For a place to stay see Mrs. Alex D. Beaton, R.R.#3 Mabou. She has kept the "Duck Hunters" for three years now and knows and accepts their way of life. Currently well worth $25 a week but expect it to be $30. next year and another $5. a week for laundry. The place is central and I just don't think you will find better.
3. For night life in this area, try Bingo on Thursday and/or Sunday night. Its the people "from away" who always win - so the odds are on your side.
4. We heard from alittle rubber duckie that the pond beside the "Old Hard surface Plant" in Little Judique was a good place for Ducks. We later looked it up - its the same as Judique Interval. You might however try the marsh on "Captains River" we didn't have a chance but it looks good.

Submitted by: Ian Cameron
September 15, 1973

Margaree Inlet

This area is a well sheltered tidal inlet, with a mucky bottom near the mouth of the Margaree River. Vegetation and natural food are abundant. The thick reed cover around the westerly perimeter of the pond is of great liking to the birds.

Problems here are many. Salt water increases the rate of corn rot. The strong tides of one to three feet disperse corn very evenly over the pond's bottom where it is lost in the muck. Along the southern edge of the pond, which the birds this year seemed to prefer, a grade of 60^{o} - 70^{o} makes a secure trap impossible. A floating concoction must be used.

The area supported throughout the season a resident flock of 20-40 blacks. They often concentrated on the Inlet but ranged widely. Previous years show some movement into Lake Ainslie. However in an effort to keep milage down the area was not trapped. For future years - keep a close eye on it.

Species observed were black, blue-winged teal, green-winged teal, three broods of blacks with a total of 24 young were also seen.

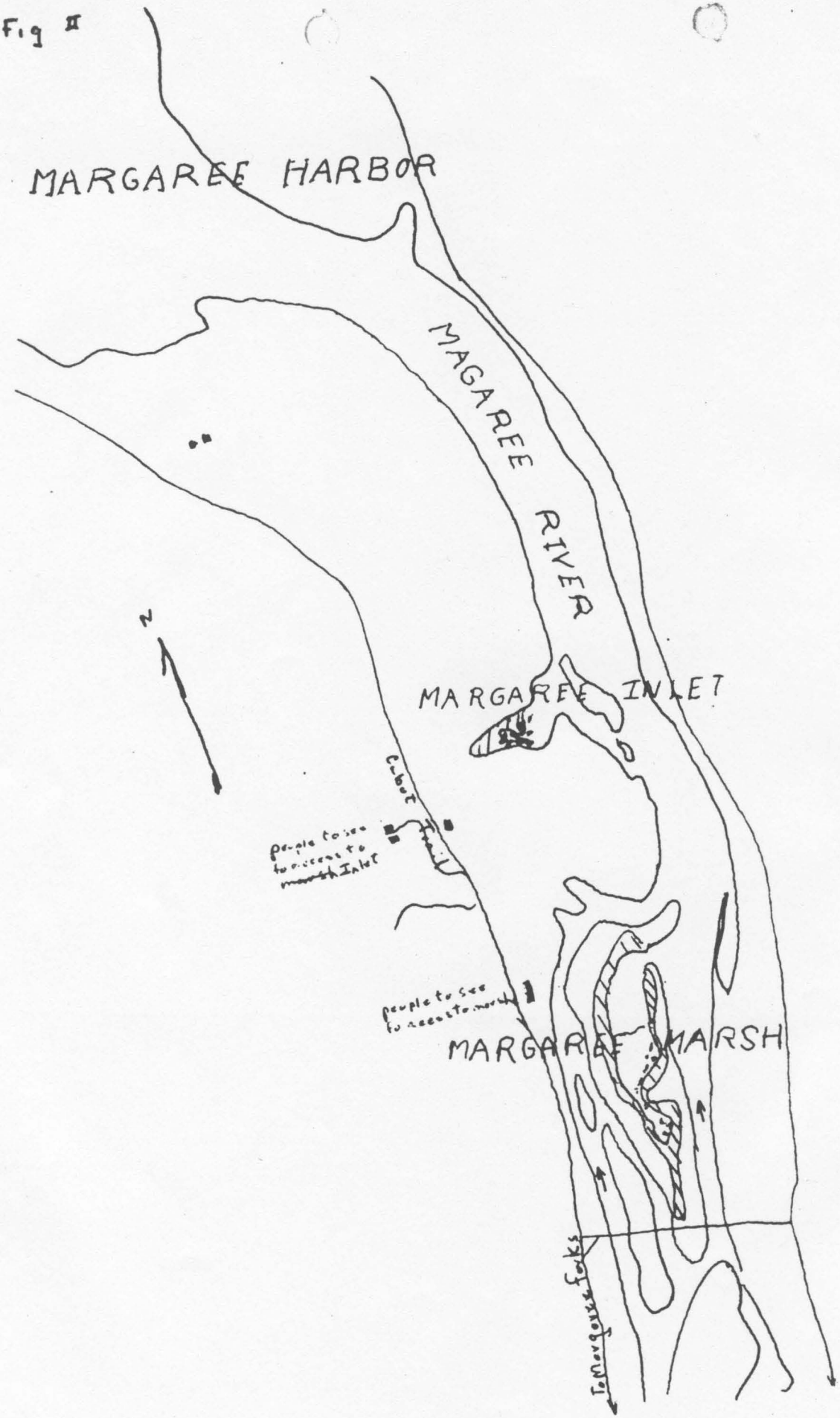
A flock of 40+ blacks were observed using this area through the first part of August but moved out when September came and nothing arrived to replace it.

Margaree Marsh

A small, rush surrounded, tidal influenced pool between two branches of the Margaree. The river merges near the outlet of the pond.

Problems here are similar to those of the Inlet. The steep grade on the bottom is absent but just as soft as that of the Inlet. Sand bottom exists at its mouth but tidal currents prevent trapping. Bottoms are necessary on traps here.

Fig II


MARGAREE HARBOR
MAGAREE RIVER
MARGAREE INLET
N
Culvert
people to see to access to mouth Inlet
people to see to access to mouth
MARGAREE MARSH
To Margaree forks

Margaree Marsh - continued

There is much movement of ducks between here and the Inlet. If they are disturbed in one area they move to the other. Similar movement depends on tides, winds, etc.

Area not trapped.

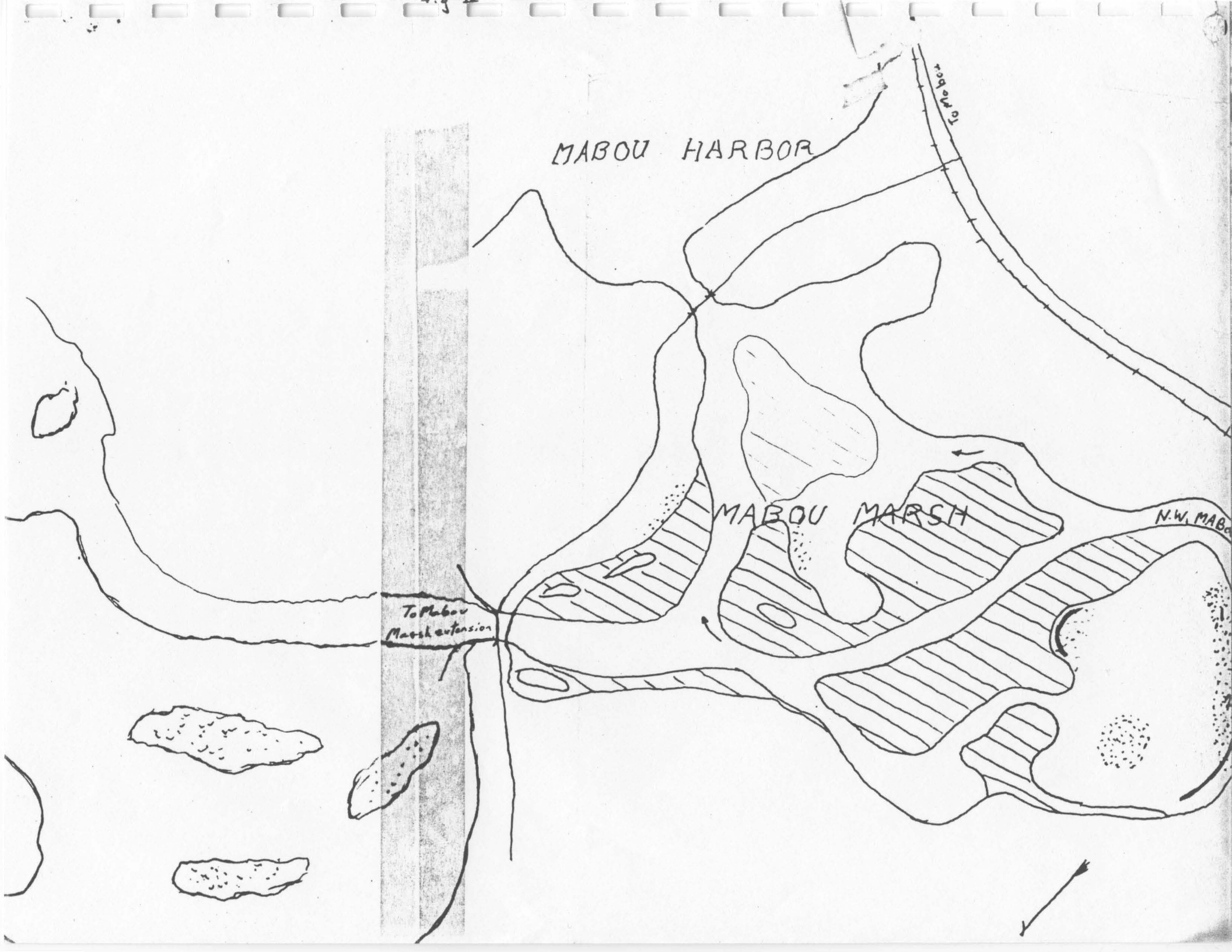
Species present were: Blacks, blue-winged teal, green-winged teal, No production was observed but local children say brood of three black - possibly same as brood of three observed on the Inlet.

Mabou Marsh

Mabou Marsh is a large area of estuary flats, honeycombed by tidal streams and pools. Food plants are extremely abundant and at low tide most pools are one foot or less in depth and thus readily accessible to dabbling ducks. Fowl can find sheltered water on the marsh from most winds. The bottom although mucky will support two feet if you don't spend too long in one spot. Being connected with Mabou harbour the area was affected by all tides ranging in height up to four feet.

Problems here come in variety. Of course those associated with tidal sea water stood out. Accessibility by canoe was excellent at high tide;at low you often had to walk through shallow water and drag the canoe. In case of pools we found it easier to run these traps at high tide! The great abundance of both vegetative and invertebrate foods over the whole area made the concentration of ducks into a single area using corn rather hard. Traps were set for two weeks before pay dirt was hit.

Birds were first observed here on August 20 when a flock of about 90± birds consisting of equal numbers of both black and teal moved in. They spread their numbers in small or large flocks over the marsh depending on tides, wind and time of day. Birds tended to move on and off the marsh in


MABOU HARBOR
To Harbor
MABOU MARSH
N.W. MABOU
To Mabou Marsh extension

groups. Retrap evidence indicated movement was to and from Lake Ainslie. As a result of this catches were often sporadic on the Lake if ducks spent prime feeding time on the marsh.[1]

After a week of baiting and another of finding nothing in the traps the first birds (4 blacks) were trapped on September 1. We managed to find locations so that bottoms were not necessary (and found it necessary to work from the canoe to keep the bottom clear). Because of the high tides funnels were constructed so that birds would be able to enter at low normally and would have to dive in at high tide. This we wound was the only way to keep birds in the traps.[2]

There was no production observed here. Species present were: black ducks, blue- and green-winged teal and red-breasted merganser and mallard.

People and predator problems were nil here as neither could stand the sand flies which inhabited the marsh.

---

1. During September a flock of 100± blue-winged teal became resident to the marsh - none were trapped. Black ducks were only observed in flocks of 25± although a flock of 60± blacks rose from Mabou Marsh Extension along with 100± teal when investigated on September 9.

This area is a well sheltered - very well sheltered area - to which birds tend as later investigation proved. It may prove profitable to set traps here. Two would be sufficient along with two on the other part of the marsh trapped this year.

2. For some reasons the birds didn't take to trap #1, only five being banded from it. It may be better to place this trap on shoreline marked in red ink on map.

Judique Interval

Judique Interval is a very large tidal estuary. Its bottom is almost completely covered by a very dense mat of aquatic vegetation and 0-12" of water at low tide. As a result ducks tend to spread out over the whole area while feeding and are consequently hard to concentrate on bait. However, ducks did tend to favour the shore which did provide shelter from off-shore winds.

The major problem encountered here was the exposure of the area to off-shore winds, which tended to force the birds from the marsh (notably onto Catherine and Judique ponds). Normal tides of 1½ to 2 feet were not of sufficient strength to wash corn. During a storm it was an estuary of a different colour.

Traps were first set here on August . They failed to produce birds at a steady rate until September. The bottom, though muddy and covered with growth, did include areas in suitable location so that bottoms were not necessary in the traps.

Duck movement will be discussed later.

No production was observed on this area. Species present were: blacks, blue-winged teal, green-winged teal, Canada geese, Several species of shore birds also used the area for feeding.

Catherine Pond

Catherine Pond is a small lake! open to the ocean on the western perimeter and on the other sides surrounded by forest. Its bottom varies from very hard sand to very soft muck. Most of this substance being covered with a thick mat consisting of several species of aquatic vegetation. The pond is affected by storm tides. Often this results in the formation of a channel to the sea.

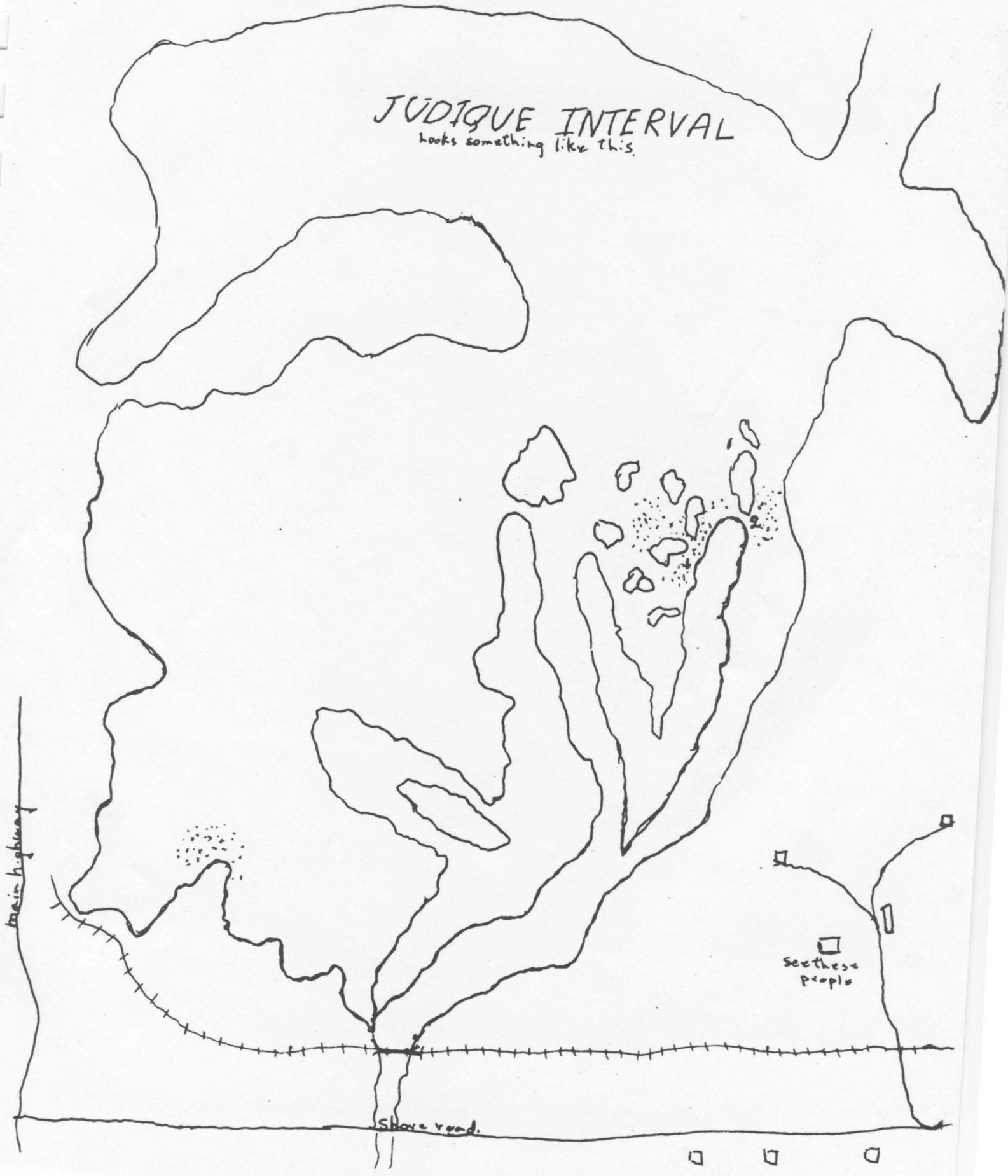
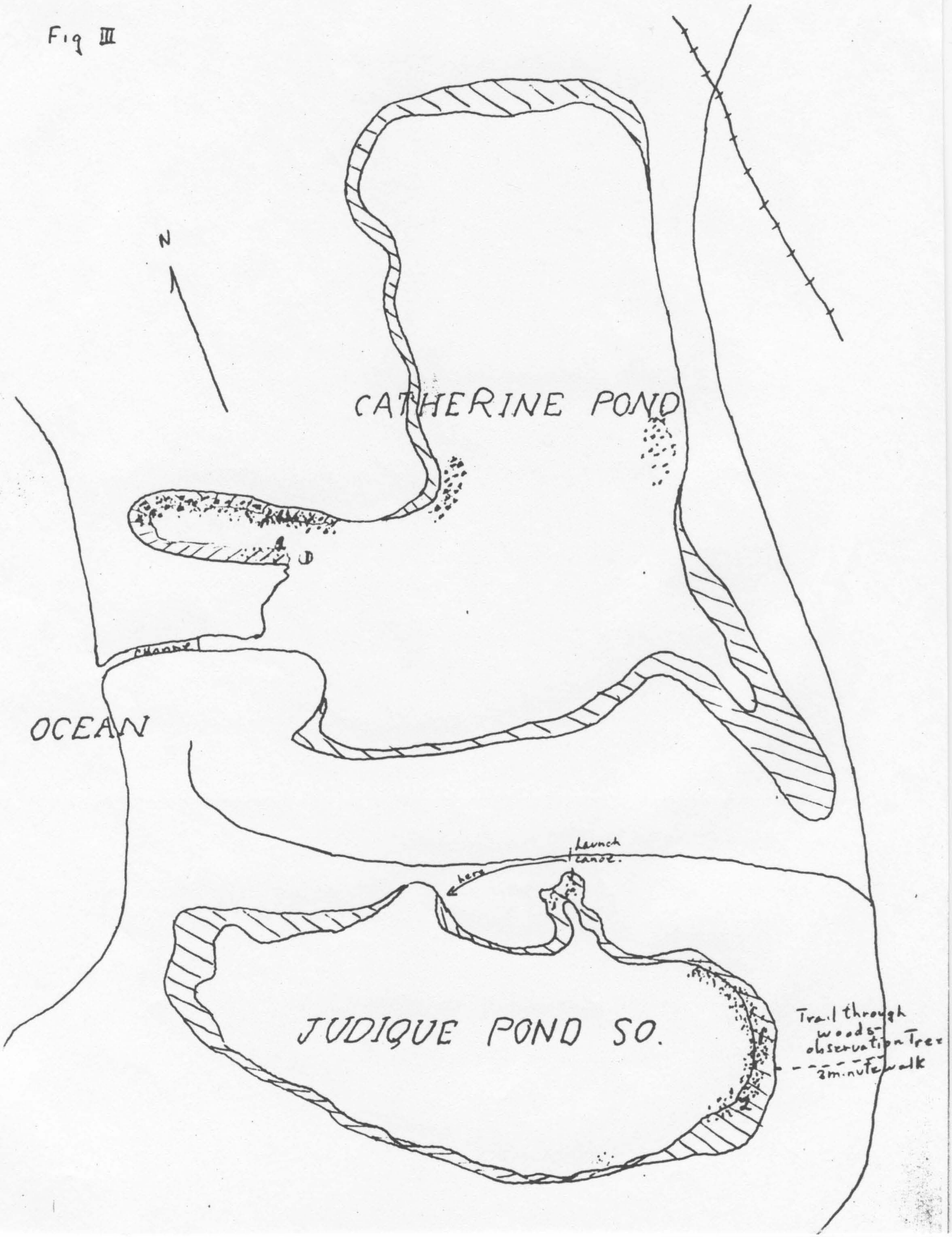

JUDIQUE INTERVAL
looks something like this
main highway
Shore road.
see these people

Fig III


N
CATHERINE POND
OCEAN
Launch canoe.
here
JUDIQUE POND SO.
Trail through woods- observation Tree
3 minute walk

Banding was restricted to westerly bay of the pond very near the shore. Birds tended to concentrate here, it being the most sheltered water from the off -shore winds. The bottom was hard and clear. At any other location except a cove on the northerly tip of the pond (rejected by the birds) bottoms would have to be used. Traps were in 10-15" of water, 30' apart and 20' off shore.

The only problem encountered here was its accessibility. Swimmers who used the beach by Judique Pond often came down for a look. A gravel company found the beach not 500 yards away very suitable. Their operation proceded almost always after 6:00 and often went on after 10:00. As a result of sporadic operations on the beach catches were very low until the last week of August and then high winds of 20-25 mph spoiled things.

Bird movement will be discussed later.

Species present were blacks, blue- and green-winged teal, ring-necked ducks, pintails and American wigeon and wood duck. Three broods were observed, a hen black with 10, a blue-winged teal with three and a ring-necked duck with four young.

Judique Pond South

This pond is another small lake adjacent to Catherine Pond - accessible from the same road. Although exposed to off shore winds the thick stands of rushes on the westerly end of the pond offered good protection in three pools on the leaward side. The bottom of these pools is mucky and are covered by a thick growth of "duckweed" and 2-3 feet of water. Bottoms are necessary in traps and the masses of vegetation will support them so that they ~~fish~~ operate in 10" of water.

Judique Pond South - continued

People problems and predation problems were nil here. Accessibility is good by canoe and motor. One could probably make it with chest waders from the shore road through the reeds - reeds only about ten feet high and so thick you can hardly walk through them - good luck.

Don't let Judique Pond fool you. You NEVER see birds on any other part of the water. The best way is to go to the observation tree. Also good for seeing local production. To find the tree, see Darrel Gillis, he can show you where the tree is and tell you just exactly what you will see, so you won't have to climb the tree.

Birds present were: blacks, blue-winged teal, green-winged teal and ring-necked duck. Local production observed: a brood of blacks 3+ and a brood of green-winged teal 4+. A hen ring-neck and a hen blue-wing acted as though they too had young on the lake.

We didn't start trapping the area until the last week of August which was too late. This area should be started immediately on arrival. Two traps were fished here this year, however, three or four medium traps could probably fish this pond without over crowding and all be productive. Bottoms for traps would be needed in all cases.

Bird Movements in Judique area

Throughout August the three ponds in the Judique area were frequented by 50 to 75 teal species and about 70 black. After September more birds moved in in greater numbers. The birds tend to spread out during feeding time, spreading their numbers between Catherine Pond and Judique Interval. It seems that the ducks move between Judique Interval and Judique Pond depending on wind and tide conditions on the Interval for roosting. Often the traps on one area were full and the other empty. There is however definite movement between the three areas as determined from retrap data.

It should also be noted that all three areas produced birds at a steady rate once they got onto the bait. And because of accessibility to Catherine Pond and conditions on the Interval depending on weather, it is advisable to trap all three locations.

Lake Ainslie

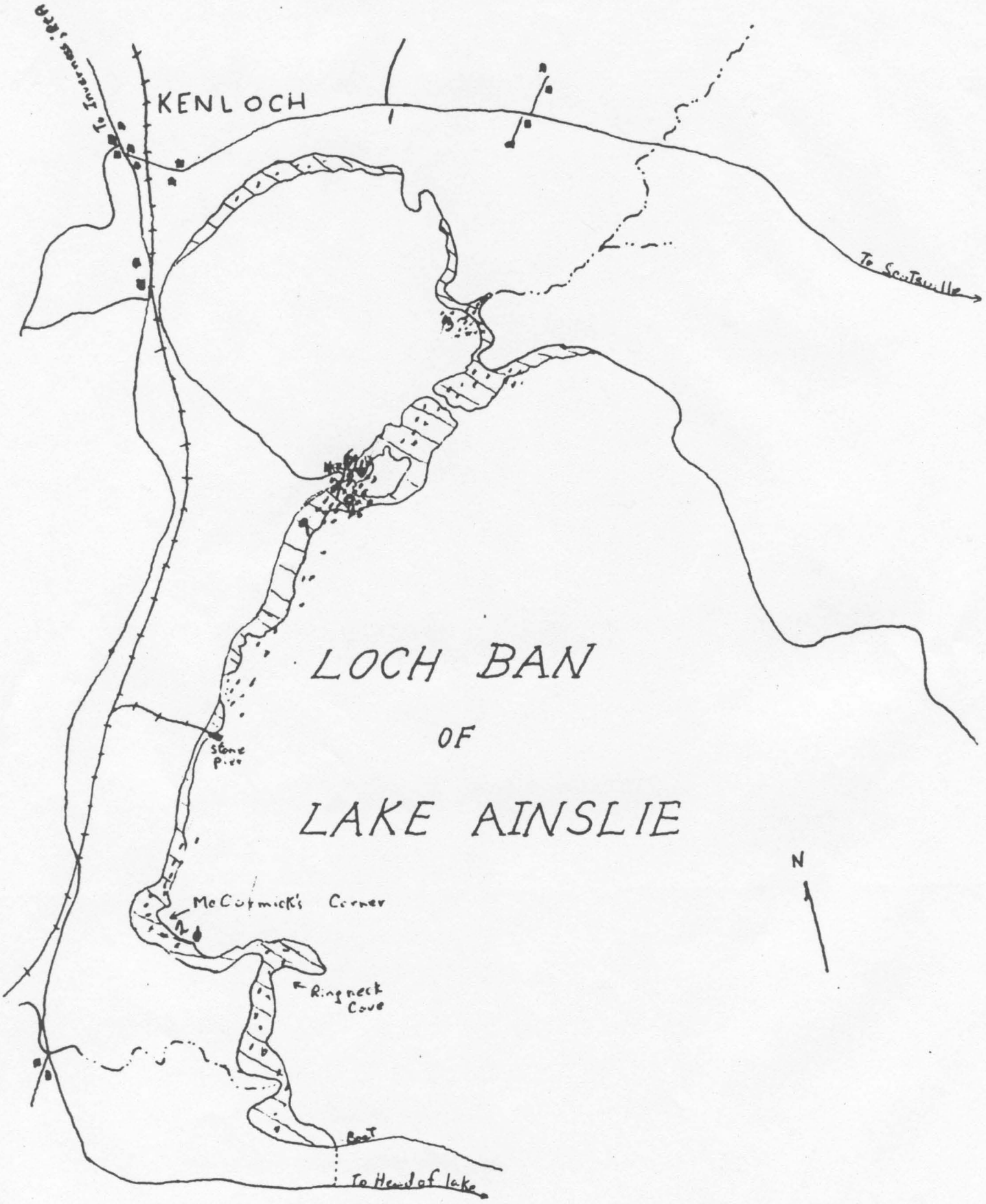
Lake Ainslie is a large freshwater body of water approximately 25 miles by 14 miles at its widest point. Banding activities were restricted to Loc Ban. The western shores of the Bay support abundant growths of aquatic and emergent vegetation which make both duck feed and shelter plentiful. The surrounding forest shelters the numerous bays and coves along this shore to any winds, excepting those from the south or south-east. The substratum of the lake along this shore varies greatly in texture and in the amount of water covering it. However, for those areas where birds concentrated, hard bottom and a suitable depth of water could be found so that bottoms were not necessary in the traps.

The northerly sector of the Loc is cut by an underwater sand bar and numerous bands of emergent vegetation forming a smaller body of water known as Kenlock. Banding was carried out primarily on the western side of the bar. The hard clear sand bottom in shallow water on this part of the bar is a bander's dream come true - when birds are present! Corn can be easily seen and is taken readily.

Accessibility to the area is excellent (by boat). People were no problem having no means of getting onto the western shore without a boat. Predators were a minor problem (see Predator Problems).

The major problem with the sand bar is its openness to prevailing winds. Although the emergent vegetation cuts down wave action anything over 10 mph will cause the bait to drift from the traps in the shallow water. As a result the birds often get a feed for free.

Fig. I


To Inverness & Perth
KENLOCH
To Scotsville
LOCH BAN
OF
LAKE AINSLIE
Stone Pier
McCormick's Corner
Ringneck Cove
Boat
To Head of lake
N

Lake Ainslie - continued

The area known as McCormicks corner was also trapped, it being well sheltered with good bottom. The only problem with this area was a lack of birds. Generally it seems birds will spread out along the whole western shore but will only concentrate on the sand bar area. This makes trapping difficult.

The lake is used as a resting place and feeding place during the late evening, night and early morning. Birds move out during the daylight hours as is reflected in the observation chart.

Birds were seen in trappable numbers frequently in McCormacks Corner the first two weeks of August but cleared out later, never to return. During the first three weeks of August a resident flock of about 70 blacks and a small flock of adult male ring-necks made use of the bar. A high percentage of both flocks was trapped. A flock of 8 adult male wood duck was also present.

During the week of August 20 things slackened off as resident birds moved out (general all over - see chart) and didn't pick up till September 8 when 10 or more birds were trapped daily.

Traps were set three on the sand bar, one in McCormacks Corner and one on the eastern part of the bar but before August was over all traps were concentrated on the bar (except the one at McCormacks Corner). Traps were moved frequently because of wind which this year washed bait with great effectiveness and because of changing water level - ~~they~~ which fell 15 inches from August to September. Perhaps in an effort to keep bait in trap the traps were moved too many times and the birds became wary?

Species present were wood duck, blacks, blue- and green-winged teal, mallard, ring-necked duck, common goldeneye, common loon and cormorant sp., and American merganser.

Lake Ainslie - concluded

Local production was observed to include 10 broods of ring-necks, 60± young, 2 broods of goldeneye, 12 young, one brood of green-winged teal with 1+ young and 2 broods of black with 4± young. A brood of 8 American mergansers were also seen.

N.B. At this point is is strongly recommended that the first day on the lake banders go out early and see as much of the shoreline of Kenlock and Loc Ban as possible to observe local production. Hens with broods just disappear when they hear the motor far away from the next day on.

It may be a better risk next year because of the low sporadic catches to move the trap in McCormacks corner to ring-neck cove (see map). Observation periodically showed a movement of hen ring-necks with broods into this area and concentration of flying ring-necks in flocks of 30± often lifted here in daytime. I do suspect however, that they move to the sand bar during the early morning and late evening. The best policy is to have a good look at both areas.

This year we took a look at a small "branch lake" about 5 miles down shore from Loc Ban.(see map). The area drains the Hays River. Although well sheltered and having a depth of 12-24" the bottom of this pool is very soft. One can stick the paddle through it and not find hard bottom. It is the closest thing to quicksand I ever saw. A few ring-necks (10±) were observed here periodically and a trip up the dead water showed black and blue-wings both with broods. A trip earlier in the season might be beneficial for seeing production. Bald Eagles were also observed in this area.

An eye should also be kept on the headwaters of the Southwest Margaree which drains the Lake. It would be worth a trip around here to see local production and maybe set a trap. Bald Eagles were also observed on this area.

Observations

August	Lake Ainslie	Sid. Lee pond South	Catherine pond	mabou marsh	Margaree Inlet	Margaree marsh
1	15 BIK Brood BWT (6) 11 Golden eye (5) Rn 10 Broods [illegible] 7-13/Brood	0	Brood BWT(5)	9 BIK.	23 BIK 2 BWT	1 BIK
2	7 BIK 2 Broods Rn 5+4 2 Brood golden eye 5+4 1 loon adult	0	Brood BWT(5) 11 BIK 2+ 3 young otters	~~not [illegible] AM~~ 0	no obsrv.	no obser.
3	28 BIK Brood (5) Rn 1 Golden-eye 5 teal (sp) 3 loon-adult	3 BIK 1 Rn 1 BWT 1 BIK } with broods?	2 teal (sp) 2 BIK	0 - AM 1 BIK in evening	no obser.	no obser.
4	1 loon adult 34 BIK 1 BWT 2 Brow BWT (8+4) Brood Golden eyes 8 - Brood Rn (most in Mos corner) 6-8/Brood	1 Black	Brood BWT - (3) 4 Rn 2 BIK	0	8 BIK	34 teal sp.
5	23 BIK 3 GWT 2 BWT 8 Rn 1 bald eagle 2 Brood Rn (13)	0	12 BIK (A.M) 13 BIK 2 GWT Brood BIK (7) Brood BWT (3) P.M.	no obser ~~no obser.~~ ~~1 BIK (PM)~~	no obser.	no obser.
6	21 BIK 6 BWT 8 Rn	0	3 BIK	1 BIK	no obser.	no obser.
7	2 loons 5 black 2 teal sp 1 Golden eye Brood Rn (8)	0	2 BWT 3 BIK	0		
8	25 BIK 1 Golden eye 7 teal sp 5 BWT 3 Rn.	0	4 BIK 5 BWT	no obser	4 BIK 1 Brood BIK (8)	5 BIK

	Lake Ainslie	Sud. que pond south	Catherine pond	Mabou marsh	Margaree Inlet	Margaree Marsh.	Sud que Interval
August 9	4 BWT 7 BIK 1 loon Brood Rn(7) Goldeneye.	0	1 BIK	no obserb	no obserb.	no obserb.	
10	7 BIK 3 BWT Golden eye. Brood(6) Brood Rn(6)	0	10 BWT 4 BIK	0 - AM. 2 BIK 10 teal sp } PM.	no obserb	no obserb	
11	8 RN 11 BIK 2 Brood Rn 1 Golden-eye 1 BWT	0	3 BIK	no obserb	8 BIK	0	
12	2 BWT 4 Golden eye 5 BIK 4 Rn. 1 Osprey	0	3 BIK 2 teal sp	no obserb	no obserb	no obserb	
13	2 Golden eye 3 teal sp 1 BWT 11 BIK 2 Rn.	0	5 BIK AM. 1 BWT 20 BIK Rn. PM 13 teal sp. Brood Rn(4) 11 BWT 3) 11 BIK(9)	0	no obserb	no obserb	
14		0	10 BIK 6 teal sp 2 Rn.	no obserb	0 n PM. 30± BIK 10± BWT 3 Brood BIK 24)	5 BIK	
15	5 Golden eye 11 BIK ~~8 BIK~~ 7 Rn 2 BWT 7 BWT 1 loon	0	4 BWT.	0	8 BIK	0	50± BIK 30± BWT
16	7 BWT 4 BIK 3 Golden eye 1 Rn 1 loon.	1 BWT	8 BIK 9 BWT Brood Rn (3) 1 red-throat loon in sea	6 teal sp	17 BIK 13 WT	2 BIK	48± BIK 50± BWT

	Lake Ainslie	Judique pond south	Catherine pond	Mabou marsh	Margaree marsh	Margaree Inlet	Judique Interval
August 17	8 RN 1 BIK 3 BWT 1 Goldeneye.	0	4 BIK 6 BWT	0	no observ	no observ	45± BIK 50± BWT
18	Broo Rn - 6 2 loon 7 BWT 2 Golden-eye	0	4 BIK 10 BWT	0	25 BIK	0	10 BIK 35± BWT
19	2 BIK	0	10 BWT 4 BIK	0	no observ	no observ	0
20	1 BIK	0	5 BIK 20± BWT	0 - AM. 60± BIK PM 40± teal sp	no observ	no observ	20± BIK 30± BWT
21	1 Golden-eye 4 BIK 2 Rn.	40± BIK 30± teal sp	7 BIK 15± teal sp	25± teal sp	no observ	no observ	0
22	2 Broad Rn (1.3) 1 wood duck pm 3 BIK 5 BWT	BIK 15± teal sp	5 BIK 7 teal sp.	20± BWT	no observ	no observ	17 BIK 23 BWT
23	6 RN 13 BIK 3 BIK - mes corner	40± BIK 20± BWT	0	45± BIK 15± teal sp	no observ	no observ	12 BIK 25± BWT
24	2 GWT 1 BWT 2 Rn 4 BIK	0	0	50± BIK 20± teal sp	no observ	no observ	15± BIK 4 GWT

August	Lake Ainslie	Judique pond South	Catherine pond	Mabou Marsh	Margaree Inlet	Margaree Marsh	Judique Interval
25	4GWT 3BlK 1Rn.	0	0	9BlK 25± BWT 15± GWT	3 BlK	0	0
26	1Rn 3GWT	0	4BlK 7GWT 5BWT	40± BlK 20± teal sp	3 BlK	0	30± BlK 20± teal sp.
27	1BlK 2GWT	8BlK - - - P.M. 5BlK 2BWT	2GWT - - - P.M. 25± BlK 30 teal sp	12GWT - - - 70± BlK 50± teal	no obserb	no obserb	50 BlK - - - 30± BlK 60± teal
28	1BlK 2BWT 3GWT	0	0	0	no obserb	no obserb	no obserb
29	18BlK 2Rn 3GWT 2Geye 8 Goldeneye Brood	5BlK	15BWT 1GWT	0	22BlK	0	16BlK 4BWT
30	3BWT 1Rn 2BlK - - - P.M. 1Rn 1BWT	1BlK	0	16 teal sp	no obserb	no obserb	12BlK 2BWT
31	2Rn 1Goldeneye 1loon(C)	50± BlK 50± teal sp 1Rn.	15BlK 5BWT	33 teal sp	no obserb	no obserb	18BlK 2BWT
32.	This space Reserved for keeners						

September	Lake Ainslie	Sudique pond South	Catherine pond	Mabou Marsh	Margaree Inlet	Margaree Marsh	Judique Interval
1	2 Commonloon 15 Blk 8 WDk(0?) 8 Goldeneye 5 Rn 30± teal sp	6 Blk 2 BWT 1 Rn	10± teal sp 4 Blk	2 Blk 30± teal sp	10 Blk 14 BWT	0	17 Blk 5 teal sp.
2	1 Loon(?)	2 Blk 3 BWT	18 Blk 5 BWT	7 Blk 50± teal spread [illegible] marsh.	5 Blk	0	18 Blk 12 teal sp.
3	30± BWT 1 Rn 2 Goldeneye 5 Blk 1 Cloon.	9 Blk 13 BWT	18 Blk 5 teal sp	60± Blk 2 mallard 30± teal sp	no observ	no observ	17 Blk 10 teal sp
4	4 BWT 1 Rn	5 BWT 1 Blk	40± Blk 60± BWT (prob[illegible])	0	no observ	no observ	0
5	1 Goldeneye 4 teal sp	1 BWT	0	0	no observ	no observ	0
6	2 Goldeneye 5 teal sp	1 Blk 2 BWT	10 Blk 5 BWT	0	0	0	15± BWT
7	25± Rnd Ringneck [illegible] 2 Rn [illegible] 5 BWT 20± A Merg	15± BWT 2 Blk 5 [illegible]	1 dozer 2 gravel trucks 2 BWT 2 Blk 7 BWT PM 18 Blk 20 BWT	0	no observ	no observ	0
8	1 Goldeneye 2 Rn 1 Blk 2 BWT	3 Blk 5 BWT	0 digging gravel.	60± Blk 40± BWT (mostly)	0	2 Blk	9 Blk 1 BWT

	Lake Ainslie	Judique pond South	Catherine pond	Mabou Marsh	Margaree Inlet	Margaree Marsh	Judique Interval
September 9	3RBMerg 8 Goldeneye 5 BIK 6 Rn	5 BIK 2 BWT	0	9 BIK	no observ	no observ	4 BIK
10	2 BIK	1 BIK	4 Rn 7 BIK 56 dap	1 Mallard 18 BIK 100± BWT	no observ	no observ	18 BIK 1 BWT
11	Brant 8 RBMerg 16 Goldeneye 1 Rn 1 BIK	1 BIK	25± BWT 4 Rn 3 BIK	100± BWT 25± BIK	no observ	no observ	16 BIK 7 BWT
12	1 BIK 2 BWT 46 WT	1 BIK	30 BIK 5 BWT 16 WT	14 BIK	no observ	no observ	1 BIK
13	1 BIK 2 BWT	1 BIK	3 BIK 16 WT	7 BIK 100± BWT 8 RBMerg	no observ	0	0
14							
15							

Bald Eagle Observations

2 A pair of adults was observed during the last weeks occasionally over Mabou Harbour.

1 An adult was observed occasionally over Mabou Marsh - one of the pair above.

3 2 adult, 1 immature, were observed rarely on shore road between banding stations.

2 A pair of mature adults (that's a good one) were observed once between Glenmora and Strathlorne.

5 3 immature and 2 mature were observed frequently along the west side of Loc Ban.

2 A pair of adults were observed at Lake Ainslie outlet (South-west Margaree)

1 Adult observed at Nyanza.

1 Mature observed at North-east Mabou river; one of same eagles from Harbour?

1 Adult observed occasionally over Margaree Marsh.

Estimated total: 4 immature and 12 mature.

Red Tailed Hawks were also observed regularly over the general area of travel.

Waterfowl Banding Project

Carmanville, Newfoundland

August 3 - September 18, 1988

Crew Members

George Brinson

A waterfowl bait trapping station was in operation in the Carmanville, Newfoundland area, again in 1988, as part of the Atlantic Flyway Co-operative Banding Program. This has been the sixth consecutive year of operation. The project operated from August 3 to September 18. Two hundred and twenty eight ducks were banded, and one duck from the previous year's banding was recaptured, bringing the total to 229 birds.

As in previous years, all banding was done on Middle Arm, the saltwater bay adjacent to Carmanville. The location used was the same as for previous years at, the extreme south end of the arm, which normally attracts the greatest concentration of waterfowl.

Baiting with cracked corn began on August 3. Cracked corn was the grain used to attract ducks. First traps were erected on August 18, with first birds banded on August 19. Baiting continued until September 12, and banding ended September 18, a week prior to opening of hunting season in the area.

A total of 115 Black Ducks, 1 Mallard, 1 Black/Mallard hybrid and 111 Green-winged Teal were banded. Species, sex and age of banded birds are listed in Table 1. Pintail and Blue-winged Teal were not banded this year. Incidentally, there were no sightings of these species during the banding period. On September 18, the final day of banding, there were 10 Canada Geese in the trap area, this being the first record for the season. Geese normally arrive on the arm by mid October.

Comparing this season to 1987, the numbers are down somewhat, but last year was an excellent year for all species. This year's totals compare with 1986, which was an average year, except for Green-winged Teal whose numbers were down that year.

One note of interest, was the general size and condition of birds.

Blacks were generally smaller in body weight and size. Also, the progression of molt seemed later, possibly indicating late broods due to renesting.

Comparing the number of adults being trapped to hatch-year birds, statistics are equal for both species, and identical to last year's numbers, at approximately 8 percent for each.

No Green-winged Teal were recaptured from previous years' bandings. There was one recapture for 1987 Black Ducks. It is interesting to note that recaptures in previous years were at or near the end of the banding period, which was also the period when most of after hatch-year birds are trapped,as well. Incidentally it is interesting to note that the Black Duck that had been recaptured in three consecutive years, did not return this year.

In general, birds were later coming to the arm this year. When birds did arrive, they immediately took bait and trapped in good numbers. Retraps were fairly common. However, birds appeared to disperse during the first few days of August and early September, with only 3-4 birds being banded each day for the first week of the banding period. At the end of the banding period there were approximately 50-75 Blacks and 50 Green-winged Teal to be observed around the arm. There were also 20-25 Red-breasted Mergansers present as well. Double-crested Cormorants were also present.

Predators were present in trapping area, with mink being the most serious. One teal was lost to a mink. The animal was disposed of by trapping. No other mink problem occurred. One other teal was lost to a lynx. On September 1, upon arrival at banding site, a lynx, which appeared to be a year old animal, had entered a trap set at the high-water mark and was sitting with a teal in it's mouth. The trap which was constructed of poultry netting, was entered through the funnel entance. A barage of stones from a

safe distance, on my part, was enough to send him on his way. It did not return after.

Poaching was not a problem. The presence of the local RCMP detachment has drastically cut down on the problem in the local area and nearby region as a whole.

Conclusions

Overall the numbers for this year's banding are most encouraging. One hundred Black Ducks from the local region, if one would normally assume these are local region production, should be considered successful, especially when our geographical location is considered. The numbers for teal should also fall into this category. The results should add greatly to our knowledge of Atlanic region waterfowl. Hopefully the program will continue.

Table 1. Age and sex breakdown, 1988 Carmanville, Newfoundland waterfowl banding project

Species	Local			Hatch Year			After Hatch Year			Total
	M	F	T	M	F	T	M	F	T	
Black Duck				53	54	107	4	4	8	115
BlackXMallard Hyb.					1					1
Mallard								1	1	1
Green-winged Teal				40	63	103	3	5	8	111
Totals				93	118	211	7	10	17	228

Waterfowl Banding Project

Churchill Falls, Labrador

September 5 - October 6, 1988

Crew Members

David Morrow

Erich Muntz

A total of 47 ducks was banded at the Churchill Falls Station in 1988. This consisted of 23 Black Ducks, 23 Green-winged Teal and 1 Pintail. The age and sex breakdown by species is contained in Table 1. Crew members arrived in Churchill Falls September 5 along with Bill Barrow to assist in the first week. It was decided to set up a base camp at Julian River 102 km from the town of Churchill Falls at the same site as last year. The trapping effort would be carried out on the Julian River and at Baikie Lake, 44 km to the northeast of the base camp (Refer Map #1).

Surveys conducted from September 5 to September 17 showed that Black Ducks were much more numerous in the area this year, as well as most other waterfowl, with the exception of Green-winged Teal. Surveys included an aerial survey by M. Bateman and J. Goldsberry which showed the best numbers of Black Ducks in Baikie Lake. Reports from local hunters also indicated waterfowl numbers throughout western Labrador were higher than in 1987, but were "average" when viewed from a longer term perspective. A brief summary of waterfowl numbers in the area is as follows: Black Duck 30-140, Green-winged Teal 2-40, Pintail 4-12, Canada Goose 2-300. A more detailed summary is contained in Table 2A & B.

Between September 8 and September 17, a total of 10 traps were erected - 5 on the Julian River and 5 at Baikie Lake. Several additional sites had been baited as well, but were later abandoned because of little or no visitation by birds. Pre-baiting was more successful than last year and all but one trap were made operational between September 17-19, and the first birds were banded on September 19 (7 Blacks).

Unfortunately catch rates did not meet our expectations, with daily totals of 0-5 birds being banded throughout the period. What was frustrating,

is that most days there were birds around the traps and often very close, but most were acting rather "trap shy" taking bait from the entrances, but refusing to go in. We changed the netting to a clear monofilament type that had been supplied for possible use in a goose trap. This looked very good being almost invisible but did not seem to affect catch rates.

We also tried bait platforms of wood, and feedbags in areas where siltation was a potential problem, but that did not help either, nor did the use of decoys.

I can only suggest that many of the birds we were seeing were only passing through the area briefly, or that adults comprised a large percentage of the birds in the area. Both factors could affect trap success.

We began pulling out on October 2. Traps were stashed on, or near sites at Julian (on site) and Baikie (woods near sites). Sign posts were stashed with the traps at Baikie Lake and signposts at Julian River were stashed in a pit behind the campsite. Refer to Sketch Maps #2, 3, 4 for locations of caches. All other gear was moved into Churchill Falls and stored in the old tire shop. See inventory for complete list of gear. Some gear was also left in the back of the truck which will be parked outside of the old tire shop.

Recommendations

If the Churchill Falls station is to be operated again next year, perhaps an effort to cannon net Canada Geese in Baikie Lake should be made, since it is an ideal site, and some Black Ducks may be captured by that method as well. A radio capable of contacting outside help in the event of vehicle breakdown would also be a good addition to the equipment. Otherwise the only other supplies needed are 20 M of 1/4" nylon rope and some codline.

NOTE: Also included in this report are a list of bird observations (Table 3) Mammals List (Table 4)

Contact List

Andrew McFarlane Work - 925-3444

Home - 925-3966

He will see to truck repair and storage.

Clem Reid - Landscape Engineer Work - 925-8275

Home - 925-8905

His department looks after old tire shop.

Francis Clark - Town Manager 925-8281

Lester Learning - small vehicles shop 925-8267

or Graham Birt

Wallace Bursey - Home - 925-3454

good man to contact about waterfowl movements etc.

Churchill Falls - 1988

Table 1. Age & Sex Breakdown

Species	Hatch Year M	Hatch Year F	After Hatch Year M	After Hatch Year F	Totals M	Totals F	Total
Am. Green-winged Teal	2	18		3	2	21	23
Black Duck	12	6	1	4	13	10	23
Northern Pintail	1						1
Totals	15	24	1	7	15	31	47

%AHY - Green-winged Teal 13%
Blacks 22%

Table 2A. Waterfowl observations Baikie Lake Labrador 5 Sept - 6 Oct 1988

	Sept																									Oct	
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2
Mallard														1		2												
Black Duck							70		48			75	140	100	80	50	80	70		30		100	12		60	100	36	
G-w. Teal					8		20		40				40	20	20	15	12	22				30						50
N. Pintail							10		4			9	8			8	5	12										
G. Scaup					6	10							4		6			2		2		12						
S. Scoter															1													
R.-b. Merganser													20		12		6	8										
Canada Goose					30	40	150		50			125		200	35		125			130		100	250	----------			300	

Table 2B. Waterfowl observations Julian River Labrador 5 September - 6 October 1988

	Sept																										Oct			
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4
Mallard									1																					
Black Duck		3		6					35				29			12		24	12		8	12	12	10	4					
G-w. Teal				2																										
B-w. Teal																		2							4					
G. Scaup																														3
C. Goldeneye																								2			3			11
Canada Goose		7																												

Brood Observations Julian River, 4 Class 3, Black Ducks, 5 Sept.
Julian River, 5 Class 3, R-breasted Merganser 8 Sept.
Julian River, 4 Class 3, R-breasted Merganser 11 Sept.
Baikie Lake, 5 Class 3, R-breasted Merganser 16 Sept.
Baikie Lake, 2 Class 3, R-breasted Merganser 30 Sept.

Roadside Observations - 3 - Surf Scoter Sept 2 & 15, 21 Red-breasted Merganser Sept 18
6 - C. Goldeneye, Sept 5-6-7-16, 35 Canada Goose Sept 5

Hunter Harvest - Green-winged Teal, Scoter, Ring-necked Duck

Table 3. Bird Observations at Churchill Falls, Labrador
September 5 - October 6, 1988
B - Baikie Lake, J - Julian River, R - seen from road in between

Species	
Common Loon	3-J (throughout period) 1-B (3 sightings)
Osprey	1 B Sept 11, 1B Sept 18, nest of 3 young on Tower 1
Bald Eagle	1 R IMM Sept 9, 1 B Ad Sept 11
Northern Harrier	1 B Sept 11, 1 B Sept 24
Northern Goshawk	1 R Sept 20
Red-tailed Hawk	1 J Sept 8, 2 R Sept 19, 1 R Oct 2
Rough-legged Hawk	1 R Sept 13
Merlin	1 B Sept 24, 1 B Oct 1
Gyrfalcon	1 R Sept 18
Spruce Grouse	3 - 30 seen daily R - throughout period
Willow Ptarmigan	4 R Sept 20
Black-bellied Plover	5 B Sept 11
Lesser Golden-Plover	15 B Sept 11, 15-30 B Sept 12-Oct 1
Semipalmated Plover	6 B Sept 19
Greater Yellowlegs	10-30 seen daily throughout
Spotted Sandpiper	1-3 daily throughout
Sanderling	15 B Sept 16
Semipalmated Sandpiper	5 seen occasionally B
Baird's Sandpiper	1 sighting
Pectoral Sandpiper	1 sighting
Common Snipe	3-10 seen daily B throughout
Pomarine Jaeger	1 sighting
Parasitic Jaeger	1 sighting
Ring-billed Gull	seen at Lobstick
Herring Gull	seen at Lobstick
Greater Horned Owl	1 R Sept 13, 1 J Oct 1
Short-eared Owl	1 J Sept 20
Horned Lark	up to 100 seen daiy Sept 20-Oct 6 B,R
Gray Jay	up to 50 seen daily
Common Raven	1-3 R occasional
Northern Shrike	1-3 seen occasionally
Rusty Blackbird	6 J Sept 23
Brown-headed Cowbird	1 J Sept 15
Common Redpoll	up to 30 seen daily throughout

Table 4. Churchill Falls Mammal List

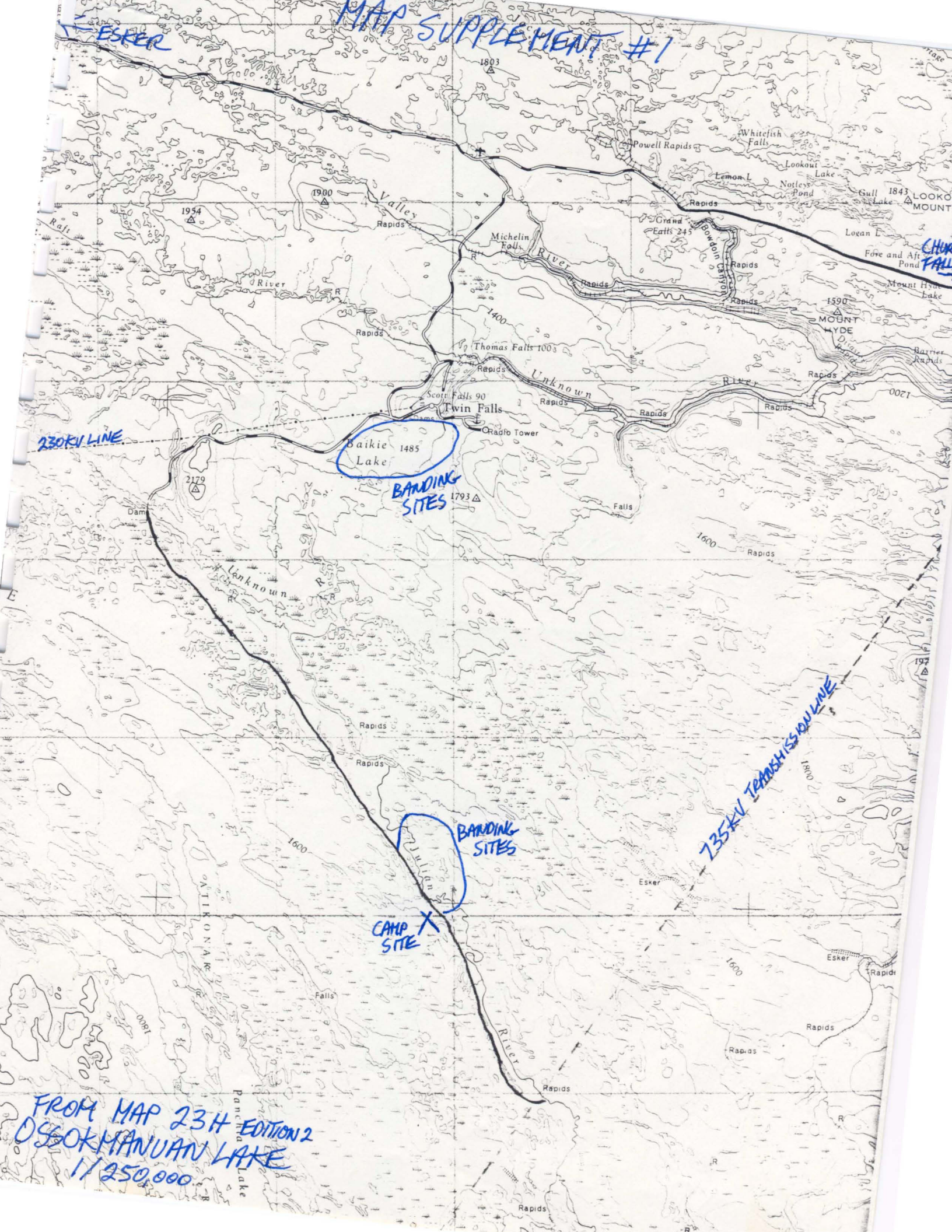
Red backed Vole	trapped
Meadow Vole	trapped
N. Bog Lemming	trapped
Weasel	Spp. unk. tracks
Mink	tracks & scat
Pine Marten	tracks & sightings
Muskrat	tracks & sightings
Beaver	tracks & sightings
Black Bear	tracks & scat
Lynx	report of sighting
Red Squirrel	
Porcupine	workings only, no sightings this year
Raccoon	tracks
Wolf	tracks and heard calling
Moose	1 yearling bull,2 adult bulls,1 adult cow,1 cow & calf
Caribou	2 sightings - yearling cows

Inventory - Churchill Falls

1 bag corn (90 k)
3 bag barley
5 plastic tarps
large green top net
Black top net (uncut) clear top net (cut 10 traps)
4- 5 Gal plastic gas cans
1- 2 Gal plastic gas cans
1 -1 Gal plastic gas can
1 nylon survival tent
8 sleeping pads - foam and cell types
1 8 X 10 X 3 Pioneer canvas wall tent & nylon fly
Assort. of tent pegs
1 16 X 14 Pioneer canvas wall tent
Assortment of tent poles for above
1 fuel pump and hose for 45 Gal drums
10 Black Duck Decoys
1 large gas funnel - 1 small funnel
1 coleman stove - 2 colemen lamps
4 dip nets
1 floater jacket
1 wooden mallet
2 bundles angle iron
1 pair hip waders (size 12)
1 suit raingear
2 life jackets
6 canoe paddles
1 Evinrude 4.5 HP motor
1 Johnson 4.5 HP motor
Spare parts for above: propellers, shearpins, spark plugs
spare wrenches (3), 2 L-2 cycle Oil
3 Outboard motor gas tanks 2.5 Gal
2 - (2 cell D size) flashlights
2 - 4 packs of D cell batteries

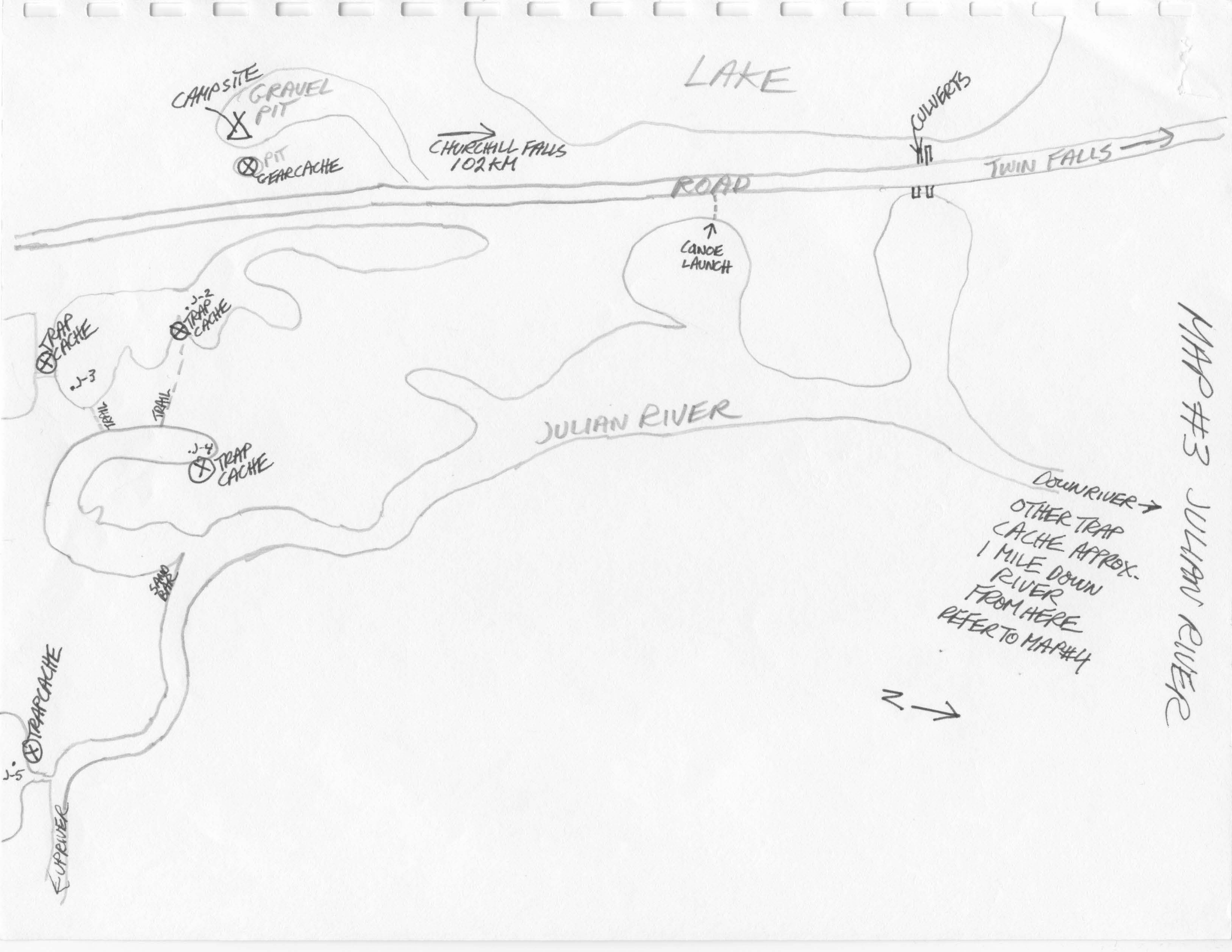
1 hammer	1 axe
1 file	1 bucksaw
2 hacksaws	1 pr pliers
2 pair vice grips	2 flathead screwdrivers

1 pair large slipjoint pliers
1 sheet metal shear
1 screwdriver set
assortment of Imp. size spanner wrench
nails - 4 ", 2 1/2" and felt assorted nuts and bolts and screws
1 roll packing twine
50 small mammal traps
1 leghold trap
20 burlap bags
4 - 5 Gal salt beef buckets
1 - 2 Gal plastic buckets
3 L 10W30 motor oil
1 L brake fluid
1 tire pump and plug kit
Tire Jack, spare tire
Trapwire - 4-2' 3 funnel, 2-4' 2 funnel, 3-4' 3 funnel

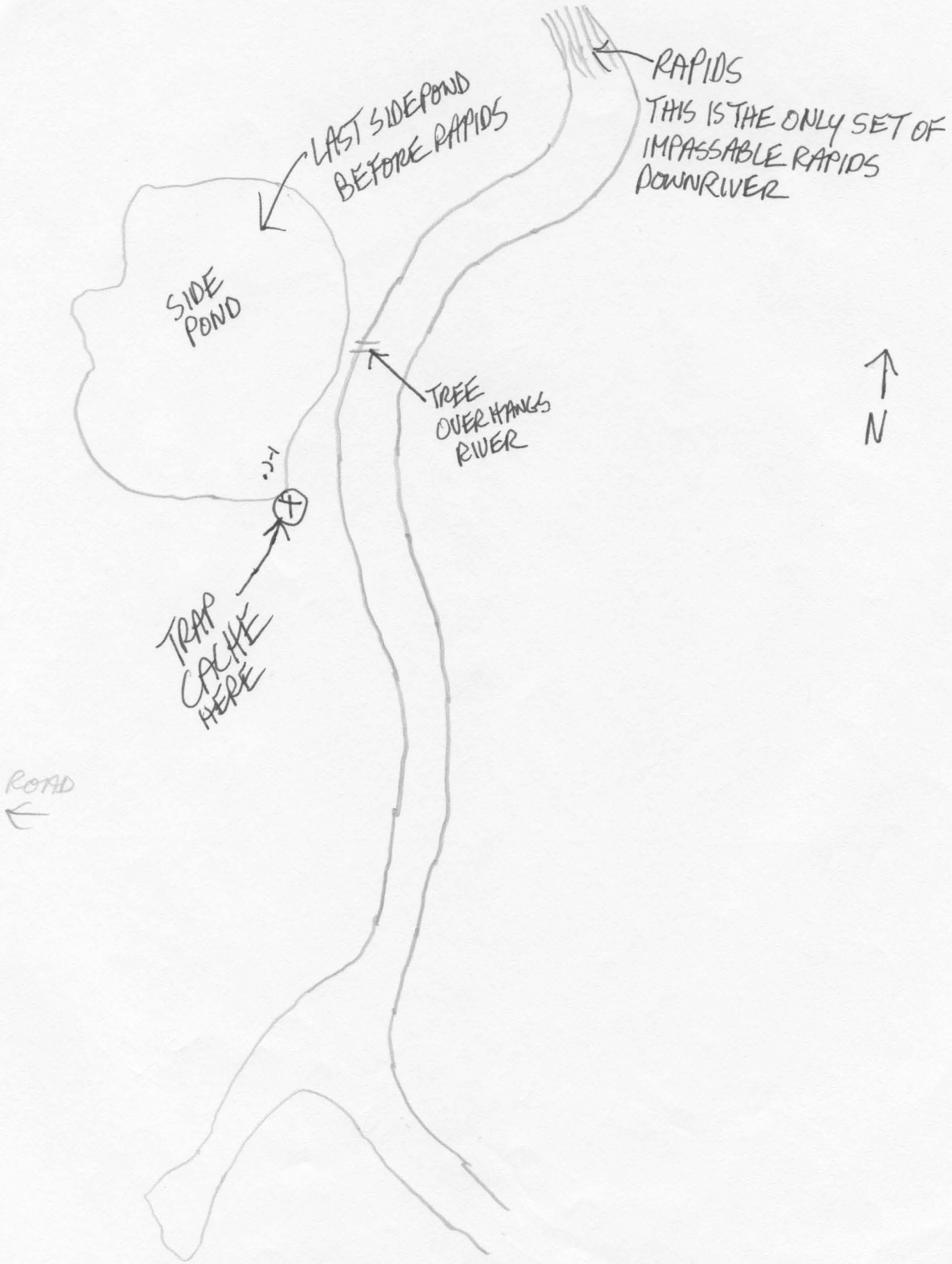

MAP SUPPLEMENT #1
ESKER
1803
Powell Rapids
Whitefish Falls
Lookout Lake
Lemon L
Notleys Pond
Gull Lake
1843
LOOKO MOUNT
Rapids
1900
Valley
1954
Raft
River
Grand Falls 245
Bowdoin Canyon
Logan L
Michelin Falls
Fore and Aft Pond
Mount Hyde Lake
1590
MOUNT HYDE
1400
Thomas Falls 100
Unknown River
Barrier Rapids
Scott Falls 90
Twin Falls
Radio Tower
230KV LINE
Baikie Lake 1485
BANDING SITES
2179
1793
Dam
Falls
1600
1200
1800
735KV TRANSMISSION LINE
Julian River
CAMP SITE
Esker
Atikonak R.
Panchia Lake
FROM MAP 23H EDITION 2
OSSOKMANUAN LAKE
1/250,000

MAP #2

BAIKIE LAKE SKETCH MAP


LAKE
CAMPSITE
GRAVEL PIT
PIT GEARCACHE
CHURCHILL FALLS 102KM
CULVERTS
TWIN FALLS
ROAD
CANOE LAUNCH
J-1 TRAP CACHE
J-2 TRAP CACHE
J-3
TRAIL
TRAIL
J-4 TRAP CACHE
JULIAN RIVER
SAND BAR
J-5 TRAP CACHE
UP RIVER
DOWN RIVER
OTHER TRAP CACHE APPROX. 1 MILE DOWN RIVER FROM HERE REFER TO MAP #4
N
MAP #3 JULIAN RIVER

MAP #4 JULIAN RIVER
DOWNRIVER TRAP CACHE



Waterfowl Banding Station Report

Cape Freels, Newfoundland

August 1-31, 1988

Crew Members

David Morrow - Crew Leader

Ammon Pickett

Walter Hefferton

Mike Hefferton

Mark Hefferton

A total of 183 ducks was banded at the Cape Freels Station during this first season of operation. This total consisted of 22 Black Ducks, 2 Black X Mallard Hybrids and 159 Green-winged Teal. A complete age and sex breakdown is contained in Table 1.

Site Description and Background Information

The Banding Station was set up in Pinchards Bight which is located approximately 3.5 km southwest of the community of Cape Freels. The terrain is open (not forested) bog, fen and beaches dotted with numerous small ponds, and one large freshwater pond called Shoal Arm Pond. Figure 1 - Map Supplement contains a composite map 1/50,000 from the N.T.S. series, which shows the major features. Generally the area is rather flat with a few low promontories, but has no site which offers a really good view of the entire area. Access to the area is feasible by boat, ATV or walking.

Pinchards Bight contains good waterfowl habitat both freshwater and tidal. As such it is an important staging area for waterfowl, and it's beaches and tidal mudflats provide good habitat for shorebirds. The Piping Plover once nested on Cape Freels Beach and a few may still be nesting in the area, although no evidence of this was seen this year during August. A variety of shorebirds, some in significant numbers (see Table 3) do frequent the area.

Due to a concern for the future of the site, the Cape Freels area development association has proposed that the area between Newtown and Cape Freels be designated as a protected area under the Provincial Wilderness and Ecological Reserves Act. There is a possibility that designation might be made by the summer of 1989.

Illegal hunting of waterfowl and shorebirds has been and remains a problem. The proposal also calls for appointment of full time enforcement personnel on a seasonal basis. The map supplement also shows the proposed boundary of the protected area.

Banding Station Operations

John Maxwell and David Morrow arrived in Cape Freels Sunday July 31 with a complement of gear from Sackville and Codroy Valley. On Monday August 1 we met with Walter Hefferton of the Cape Freels Development Association, and crew member Ammon Pickett. It was decided that Walter and his sons Mark and Mike would assist in the operation of the station and provide some transportation to the site. Surveys carried on for the next few days showed waterfowl numbers to be low during the first week of August (see Table 2), although numbers continued to increase during the month. We baited 6 sites in the area of Arch Halls Garden (3) Shoal Arm Brook Mouth (2) and Rocky Pond (1). These are marked on Fig. 1 and Fig. 2 - Map Supplement. These sites were chosen as being the most convenient and had the best consistent waterfowl use.

We experienced some difficulty in getting birds on bait, partly due to low numbers and partly due to disturbance from the many bakeapple pickers in the area during the first two weeks in August. Despite this, we managed to get some Green-winged Teal and Black Ducks onto the bait by August 8, and began erecting traps on that date and made the first traps operational (Arch Halls Garden and Rocky Pond) on August 11. The first birds were trapped on August 12. Weights were taken on all birds trapped (except 1 Green-winged Teal) using a 1500 gm Jim Scale and a 2 kg Ohavs Scale - These were recorded on Field Sheets.

Trapping proceeded with increasing success, peaking during August 15-21, when we were banding up to 32 birds per day. All Black Ducks were banded during August 16-20. After that date we continued to trap good numbers of Green-winged Teal and recapture rates were not too high, indicating there were plenty of new birds moving in. Although there were still Black Ducks around after August 20 and indeed numbers were increasing, they stopped frequenting our trap sites. This may have been due to poor tidal cycles at that time (low tide early in the morning and late in the evening) or to poaching.

We began receiving some harassment on August 20, which continued until the projects' end. When going in by ATC, someone was flattening the tires on the trucks which were parked just outside the community of Cape Freels. On August 24 someone raided Trap 1 at Arch Halls Garden just as we were coming in by boat. We saw an ATV speeding down the beach, but were not close enough to get a positive ID. Apparently they must have seen us coming because 3 badly injured Green-winged Teal were left inside the trap. Also they began dismantling D. Morrow's tent and were presumably planning to steal or destroy it.

Ed Wright of RCMP Gander Detachment came out on August 25 and did a stakeout on our trucks while we were gone out to the site, but met with no success. After that date we operated the traps only during the day and wired the doors shut upon leaving. This method was totally unsuccessful.

Traps were taken up August 28-30 and stored with other gear in Walter Heffertons store in Newtown (see equipment inventory).

Conclusions and Recommendations

Waterfowl numbers in the Cape Freels area do indicate that it should be worthwhile to operate a Banding Station here in the future, but problems with poaching will almost certainly arise. There is an element in the community of Cape Freels who do not want a sanctuary established or a banding station operated. They regard both of these to be an encroachment on "their turf". This is contrary to the views of the majority of people in the area. Many local hunters complain that is is a waste of time to go hunting during the legal season because all the birds are "shot out" or scared off long before opening day.

If the area is declared a protected area it will help solve the problem, but only if there is increased enforcement. The protected area will presumably be closed to ATV traffic and that will be of some help in itself, but problems are still likely to arise. I recommend that an experienced crew leader should be sent in again next year, and a local person hired as crew. The crew leader should be equipped and prepared to camp on site for the entire period. A campsite can be set up at the end of back beach near Arch Halls Garden (I camped there myself from August 15 - 20).

It might also be a good idea to have the crew leader designated as a Peace Officer for the banding period and equipped with a handgun (if permits can be obtained) and communication gear. I view this as a deterrent to any poaching activity or harassment.

I also recommend an operating period of 6 weeks from mid-August to the end of September. Based on our observations this year, and from local reports, that would appear to be the best timing, since waterfowl numbers seem

to peak in late August and early September. Both operational decisions will depend on the outcome of the protected area designation.

Two other potential trap sites in the area are at Ben Carters Brook and Black Duck Brook. Both had some Black Ducks hanging around infrequently, however the problem of keeping a close watch on them will remain unless they are chosen as alternate sites. Walter informed me that there are other good sites "in country" west of Pinchards Bight, but again would likely have to also be trapped as alternate sites.

Acknowledgements

I would like to thank Walter Hefferton and his family for their generous assistance throughout the project, and for the help in organizing before operations began. I would also like to thank the RCMP for their assistance as well, in particular Ed Wright of Gander Detachment.

Table 1. Cape Freels Age-Sex Breakdown

Species	HY M	HY F	AHY M	AHY F	Total
Black Duck	16	6	0	0	22
Black Duck X Mallard Hybrid	0	2	0	0	2
Am. Green-winged Teal	76	79	0	4	159
Totals	92	87	0	4	183

Table 2. Waterfowl observations - Cape Freels

Species	Week 1 Aug 1-7	Week 2 Aug 8-14	Week 3 Aug 15-21	Week 4 Aug 22-pros end 30
Black Duck	24	69	75	100
Mallard	2	4	2	2
Pintail	5	3	3	3
Green-winged Teal	55	107	200	300
Canada Goose	5	15	50*	50*

*not in Pinchards Bight

Table 3. Checklist and Notes - Bird Observations Cape Freels Aug. 1- Aug. 30

Freels	Nfld. Status Notes
Common Loon	2 in Shoal Arm Pond
Northern Gannet	Flocks of 1-5 seen offshore
Double-crested Cormorant	(up to 21 in Shoal Arm Pond & Pinchards Bight throughout August
Canada Goose	15-50 in area during period
Green-winged Teal	55-300 in Pinchards Bight
Am. Black Duck	24-100 in Pinchards Bight
Mallard	2-4 in Pinchards Bight
Northern Pintail	3-5 in Pinchards Bight
Blue-winged Teal	1 found dead in Valleyfield Aug.18
Osprey	1 seen in area during period
Northern Harrier	1 adult M, 1 adult F, 1 Imm. seen regularly PB
Black-bellied Plover	up to 40 seen Aug. 18-30 P.B.
Lesser Golden-Plover	up to 60 seen Aug. 18-30 P.B.
Semipalmated Plover	up to 100 seen throughout Aug. P.B.
Piping Plover	up to 5 seen on C. Freels Beach (no broods)
Greater Yellowlegs	up to 100 seen throughout Aug. P.B.
Spotted Sandpiper	5-10 seen throughout period P.B.
Whimbrel	5-100 seen Aug. 1-18, 50 Aug. 18 - 30 P.B.
Ruddy Turnstone	4 seen occasionally throughout Aug. P.B.
Semipalmated Sandpiper	to 150 seen throughout Aug. P.B.
White-rumped Sandpiper	40 to 80 seen throughout Aug. P.B.
Dunlin	4 seen regularly Aug. 20-30 P.B.
Common Snipe	15-20 seen & heard throughout Aug. P.B.
Common Black-headed Gull	2 seen regularly Aug. 10-20 P.B.
Ring-billed Gull	up to 12 Imm. seen Aug. 20-30 P.B.
Herring Gull	200+ in area all of Aug. P.B.
Great Black-backed Gull	100+ in area all of Aug. P.B.
Black-legged Kittiwake	2-50 seen in area all of Aug. P.B.
Common Tern	100+ in area all of Aug. P.B.
Arctic Tern	mostly Common Tern
Black Guillemot	1-2 seen occasionally all of Aug. P.B.
Short-eared Owl	1 seen occasionally all of Aug.P.B.
Yellow-bellied Flycatcher	1 seen Aug. 9 P.B.
Horned Lark	up to 5 seen throughout Aug.P.B.
Tree Swallow	1-5 seen throughout Aug. P.B.
American Crow	up to 20 seen throughout Aug. P.B.
Common Raven	up to 10 seen throughout Aug. P.B.
Black-capped Chickadee	1 Aug 9 seen throughout Aug. P.B.
Boreal Chickadee	1 Aug. 9 seen throughout Aub. P.B.

Golden-crowned Kinglet	1 seen Aug. 24 Winmill Bight Park
Amrican Robin	1-5 seen regularly throughout P.B.
Water Pipit	1-5 seen regularly throughout Aug. P.B.
Yellow Warbler	1 seen Aug. 9 P.B.
Savannah Sparrow	10-15 seen regularly throughout Aug. P.B.
Fox Sparrow	1-5 seen regularly throughout Aug. P.B.
White-throated Sparrow	1 seen Aug. 9 P.B.
Dark-eyed Junco	1-5 seen throughout Aug. in area

Table 4
Table of Trap Success

Totals Banded

AHG#1 - 90 GWT

AHG#2 - 19 GWT

AHG#3 - never made Operational

Rocky Pond - 0

R.P. Brook - 19 Blacks and Hybrids, 12 GWT

Shoal Arm Brook - 5 Blacks, 38 GWT

Inventory of Equipment stored in Cape Freels

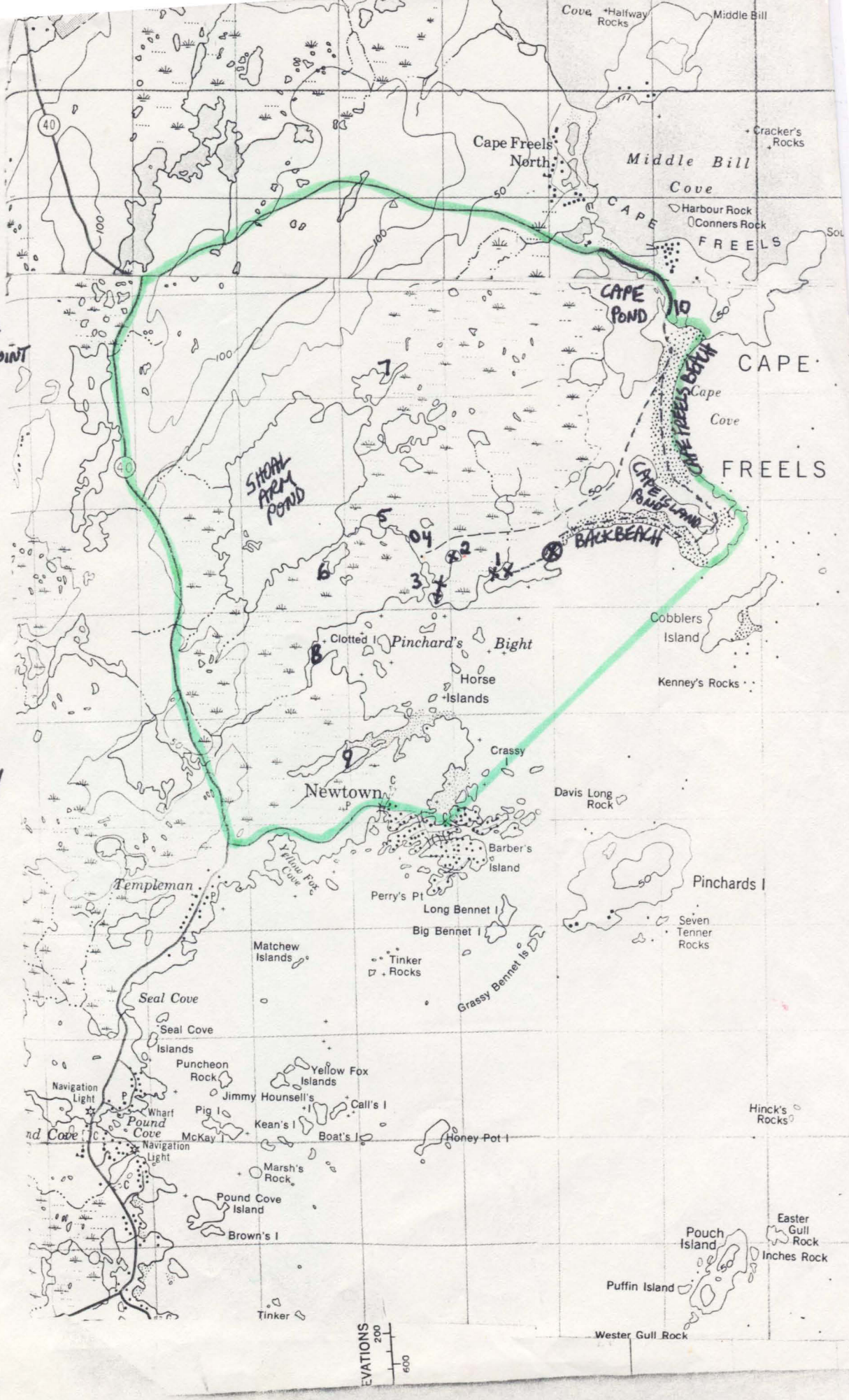
Trap wire - sufficient to construct 4-3 funnel traps and
2-2 funnel traps
8 banding station signs - mounted on posts
netting - 8 pieces
6 burlap bags
2 bait buckets
3 40 kg bags cracked
2 dipnets

Returned to CWS Sackville

17 foot square stern grumman canoe
2 lifejackets
2 paddles
1 coleman lantrn
bands, pliers, field book - carried on to Churchill Falls and then returned to Sackville

GURE 1

P SUPPLEMENT



- ARCH HALLS GARDEN
- ROCKY POND
- SHOAL ARM BROOK MOUTH
- THE HUMMOCK-GOOD VIEWPOINT
- DEVILS POND
- LITTLE SHOAL ARM POND
- NORRIS POND
- BEN CARTERS BROOK
- BLACK DUCK BROOK
- PARKING SPOT FOR TRUCKS

BAIT & TRAP SITES

CAMPSITE

PROPOSED SANCTUARY BOUNDARY

COMPOSITE - NTS MAPS 2F5 2F6 2F4, 2F3 SCALE 1/50,000