

The Atlantic Provinces Co-operative  
Waterfowl Banding Program - 1978

W.R. Barrow

Oct. 1978

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The Atlantic Provinces Co-operative Waterfowl Banding Program - 1978

The fourteenth consecutive year of co-operative waterfowl banding was completed in 1978. Three bait stations and two airboats operated throughout Nova Scotia, New Brunswick and Prince Edward Island.

Bait Stations

Three bait stations using standard funnel traps baited with cracked corn operated throughout a six week period. The Montague station in Prince Edward Island banded only 273 but approximately 60% of these were Black Ducks. The Black Duck total would no doubt have been higher if the crew had not experienced trouble with both predators and human interference. Next year new trapping areas (see recommendations 1978 report) will need to be trapped.

Two bait stations (Amherst Station, Sackville Station) operated within the Border Area in an effort to meet the Black Duck quota (500) by bait trapping methods alone. Although not attained, the quota for bait stations in this area is not unrealistic. The Black Duck average over a 13 year period for a single station in this area is 420. Management procedures and impoundment water level manipulation hindered the trapping effort on several occasions. Also many traps throughout the area were pulled early as students were moved to new banding stations. Bait trapping and night lighting efforts combined did, however, meet the Black Duck quota in this area. If bait trapping can be used as an index, the Green-winged Teal numbers appear to be increasing in this area. (Table 1).

Two new areas were bait trapped on a short term basis. The Wallace Bay National Wildlife Area was trapped for a one week period. Over one thousand birds were observed on the area and production is

increasing yearly. No birds were banded in this area because one impoundment was drawn-down and in the other area birds showed no interest in cracked corn. Two areas, Bathurst and Campbellton were trapped in North Eastern New Brunswick. Seasonally high tides completely covered the traps in the Campbellton area and terminated a short banding effort. The Bathurst area was somewhat more productive as inland areas were trapped while volunteer and knowledgeable help was available.

Table 1. Black Duck and Green-winged Teal totals for the Border area bait station 1965-78

	1965	66	67	68	69	70	71	72	73	74	75	76	77	78
Black Duck	575	240	309	135	504	399	614	475	693	485	345	290	413	374
G-w Teal	136	16	417	88	124	101	102	40	3	71	23	39	3	110

### Night-Lighting

The U.S.A. airboat has traditionally operated in the Fredericton area. Two American and one Canadian crew member operated this boat for a one month period in an effort to band 500 Black Ducks. The sinking of their boat and subsequent engine trouble limited their banding success.

The C.W.S. airboat worked eleven nights in the Border area. Two more nights were spent at Wallace Bay National Wildlife Area and at Port Joli. One crew member operated this boat along with numerous volunteers.

### Bait trapping personnel

Six individuals all paid by co-operative funds participated in this year's bait trapping effort. The following individuals could be

recommended for any waterfowl banding program and should receive priority if returning for next year's program.

Beth Jenkins	R.R.#5, Mt. Hebert, Charlottetown, P.E.I.
Kathy MacDonald	R.R.#1, Kinlock Road, Charlottetown, P.E.I.
Robert Halpern	407 Billage Ln., Broomall, P.A. 19008 U.S.A.
Fred DiBello	595 College Street, Lewiston, Me. 04240 U.S.A.
Stuart Tingley	P.O. Box 1590, Sackville, N. B.
Steven Young	38 11th Ave., Madawaska, Maine 04756

#### Night Lighting personnel

##### U.S.A. Airboat

Maurice Mills	Rachel Carson National Wildlife Refuge, R.R.#2, Box 98, Drakes Is. Rd., Wells, Me. 04090
Alan Hundley	Erie National Wildlife Refuge, Rd. 2, Box 191 Guys Mills, Penn. Penn. 16327
Greg Belyea	U.N.B. Fredericton, N. B.

#### Canadian Wildlife Service Airboat

W. R. Barrow	P. O. Box 1590, Sackville, N. B.
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##### Volunteer help

Randy Hicks	Peter Barkhouse
Steve Beauchamp	Peter Hicklin
Randy Milton	Dale Morton
John Maxwell	Co-op banders
Colin McKinnon	Mike Malone
Keith McAloney	Acadia Students

Without the assistance of the above mentioned individuals, operation of the airboat, in its present status, would be impossible

The results of the bait trapping and night lighting efforts are shown in tables 2-6.

#### Recommendations for 1979

(1) Wallace Bay National Wildlife Area Bait Station

An interest by both provincial and federal governments in banding birds from this area has been expressed. A bait station banding in the three impoundments and some nearby marshes could possibly meet quota requirements. Two students from the Pugwash area could run this station at minimum expense.

(2) Management Schedule

A complete schedule of management practices to be carried out on all impoundments would be beneficial. Trapping could then be carried out along with the management practices and eliminate several days in lost time as was the case in 1978.

(3) Montague P.E.I. Bait Station

New trap sites will have to be tried in 1979 if waterfowl numbers are to be increased. Several individuals have expressed a willingness to help in this area and should be contacted prior to next season.

(4) Border Area Bait Station

Quota requirements are not being met by bait trapping alone. Another station could be set up to operate in the Hog Lake, #6 impoundment and White Birch area. The possibilities of this area are very encouraging.

(5) Trapping effort

There is definitely a need for more aggressiveness by ourselves and the banders towards the end of the season especially in this Border Area. An effort to try new areas or move traps would increase our production.

(6) Canadian Wildlife Service Airboat

The main function of this boat is to supplement the Border Area bait banding effort. The employment of a full-time crew would increase its efficiency and double production if required.

(7) New Stations

The operation of such stations on a short term basis is probably not economically justifiable without the continued co-operation of the New Brunswick wildlife branch. The acquisition of a cannon net could solve many of the problems encountered at these short term stations.

(8) Waterfowl quota-

The elusive Black Duck or Green-winged Teal quota which in past justified the existence of a banding station is becoming harder to attain in the traditional banding areas. This could be the result of extensive management practices, population trends or natural phenomena. Whatever, the minor species are increasing in number and kind and should receive some consideration.

### The Maritime Night-lighting effort

The Canadian Wildlife Service has operated an airboat throughout Atlantic Canada for over ten years. An American airboat operating near Fredericton, New Brunswick has operated for approximately the same period and the Prince Edward Island and Nova Scotia wildlife agencies have acquired boats in more recent years.

While the results from such operations have been encouraging perhaps the overall picture has yet to be observed. Knowledgeable biologists and scientists consistently express verbal concern after participating in a night lighting exercise. Complaints by others are increasing and acts of vandalism against such boats are frequent. Such negative concern by so many is disturbing. Could we as conservationists be wrong? If so, what can be done?

With so many boats the expertise in this field must surely be unlimited. A set of guidelines could be drafted if indeed these boats have shown their worth.

For example; (1) A portion of one night was worked with the U. S. airboat. Too many young birds were netted and subsequently banded or released.

(2) The N.S. L & F boat worked within the Border Area for the past two years. There is definitely no need for two boats to work the same marsh. The results from such night lighting efforts is impressive, but are we looking at the true and final result?

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Table 1 Age and sex breakdown - Co-operative banding, 1978 Border Area - Sackville Station

Species	LOCAL				HATCHING YEAR				AFTER HATCHING YEAR				TOTALS			
	Male	Female	Unk.	Total	Male	Female	Unk.	Total	Male	Female	Unk.	Total	Male	Female	Unk.	Total
Black Duck	41	27	-	68	36	40	-	76	2	6	-	8	79	73	-	152
Black hybrid	-	-	-	-	-	1	-	1	-	1	-	1	-	2	-	2
Mallard	4	4	-	8	4	1	-	5	-	1	-	1	8	6	-	14
B.-w. Teal	21	17	1	39	134	114	-	248	4	11	-	15	159	142	1	302
Am. G.-w. Teal	-	-	-	-	3	7	-	10	1	-	-	1	4	7	-	11
Wood Duck	-	-	-	-	-	-	-	-	9	-	-	9	9	0	-	9
Pintail	6	4	-	10	23	28	-	51	1	6	-	7	30	38	-	68
Am. Wigeon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R.-n. Duck	14	12	-	26	15	13	-	28	1	6	-	7	30	31	-	61
Shoveler	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gadwall	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canada Goose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Am. Coot	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C. Gallinule	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals	86	64	1	151	215	204	-	419	18	31	-	49	319	299	1	619



Table 2. Age and sex breakdown -Co-operative banding, 1970 Border Area Amherst Station

Species	LOCAL				HATCHING YEAR				AFTER HATCHING YEAR				TOTALS			
	Male	Female	Unk.	Total	Male	Female	Unk.	Total	Male	Female	Unk.	Total	Male	Female	Unk.	Total
Black Duck	4	8	-	12	72	95	-	167	10	12	-	22	86	115	-	201
Black hybrid	1	2	-	3	2	5	-	7	-	-	-	-	3	7	-	10
Mallard	-	-	-	-	2	-	-	2	1	1	-	2	3	1	-	4
B.-w. Teal	4	6	-	10	165	169	-	334	26	10	-	36	195	185	-	380
Am. G.-w. Teal	6	3	-	9	35	20	-	55	11	7	-	18	52	30	-	82
Wood Duck	-	-	-	-	-	-	-	-	2	-	-	2	2	-	-	2
Pintail	6	12	-	18	15	40	-	55	1	8	-	9	22	60	-	82
Am. Wigeon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R.-n. Duck	5	16	-	21	-	5	-	5	-	-	-	-	5	21	-	26
Shoveler	-	-	-	-	3	1	-	4	-	-	-	-	3	1	-	4
Gadwall	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canada Goose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Am. Coot	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C. Gallinule	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals	26	47	-	73	294	335	-	629	51	38	-	89	371	420	-	791
Black Duck*	-	-	-	-	12	7	-	19	1	1	-	2	13	8	-	21
Green-w Teal*	-	-	-	-	1	-	-	1	11	5	-	16	12	5	-	17
Wood Duck*	-	-	-	-	1	-	-	1	3	-	-	3	3	-	-	3
Pintail*	-	-	-	-	-	2	-	2	-	-	-	-	-	2	-	2

\*Additional waterfowl banded in area by CWS personnel to meet quota requirements for station.

W.R.B.

Table 3 Age and sex breakdown - Co-operative banding, 1978 Montague Bait Banding Station

Species	LOCAL				HATCHING YEAR				AFTER HATCHING YEAR				TOTALS			
	Male	Female	Unk.	Total	Male	Female	Unk.	Total	Male	Female	Unk.	Total	Male	Female	Unk.	Total
Black Duck	7	20	-	27	63	76	-	139	1	4	-	5	71	100	-	171
Black hybrid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mallard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B.-w. Teal	8	8	-	16	17	23	-	40	-	2	-	2	25	33	-	58
Am. G.-w. Teal	-	-	-	-	12	14	-	26	3	3	-	6	15	17	-	32
Wood Duck	-	-	-	-	-	-	-	-	3	-	-	3	3	-	-	3
Pintail	-	-	-	-	-	3	-	3	-	1	-	1	-	4	-	4
Am. Wigeon	1	2	-	3	1	-	-	1	-	-	-	-	2	2	-	4
R.-n. Duck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shoveler	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gadwall	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canada Goose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Am. Coot	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C. Gallinule	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous	-	1	-	1	-	-	-	-	-	1	-	1	-	1	-	1
Totals	16	30	-	46	93	116	-	209	7	11	-	18	116	157	-	273

Table 4 Age and sex breakdown -Co-operative banding, 1978 U.S. Airboat

Species	LOCAL				HATCHING YEAR				AFTER HATCHING YEAR				TOTALS			
	Male	Female	Unk.	Total	Male	Female	Unk.	Total	Male	Female	Unk.	Total	Male	Female	Unk.	Total
Black Duck	142	122	-	264	53	75	-	128	3	12	-	15	198	209	-	407
Mallard	2	7	-	9	2	-	-	2	-	-	-	-	4	7	-	11
B.-w. Teal	133	90	1	224	26	33	-	59	19	11	-	30	178	134	1	313
Am. G.-w Teal	14	13	-	27	9	7	-	16	7	13	-	20	30	33	-	63
Wood Duck	21	19	-	40	1	1	-	2	15	2	-	17	37	22	-	59
Pintail	5	1	-	6	2	-	-	2	-	-	-	-	6	1	-	8
Am. Wigeon	52	40	-	92	1	-	-	1	2	-	-	2	55	40	-	95
Shoveler	2	1	-	3	1	-	-	1	-	-	-	-	3	1	-	4
Gadwall	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canada Goose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Am. Cott	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C. Gallinule	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C. Goldeneye	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1
Totals	372	293	1	666	95	116	-	211	46	38	-	84	513	447	1	961

Table 5. Age and sex breakdown - Co-operative banding, 1978, CWS Airboat

Species	LOCAL				HATCHING YEAR				AFTER HATCHING YEAR				TOTALS			
	Male	Female	Unk.	Total	Male	Female	Unk.	Total	Male	Female	Unk.	Total	Male	Female	Unk.	Total
Black Duck	23	21	-	44	35	45	-	80	2	9	-	11	60	75	-	135
Black hybrid	-	-	-	-	1	3	-	4	-	-	-	-	1	3	-	4
Mallard	5	1	-	1	3	4	-	7	-	2	-	2	3	7	-	10
B.-w. Teal	66	47	-	113	87	88	-	175	33	24	-	57	186	159	-	345
Am. G.-w. Teal	11	11	-	22	120	116	-	236	30	25	-	55	161	152	-	313
Wood Duck	2	1	-	3	-	1	-	1	11	1	-	12	13	3	-	16
Pintail	10	6	-	16	11	7	-	18	-	-	-	-	21	13	-	34
Am. Wigeon	31	34	-	65	9	7	-	16	2	6	-	8	42	47	-	89
R.-n. Duck	6	10	-	16	4	8	-	12	1	1	-	2	11	19	-	30
Shoveler	5	3	-	8	5	9	-	14	5	-	-	5	15	12	-	27
Gadwall	-	3	-	3	1	-	-	1	-	-	-	-	1	3	-	4
Canada Goose	-	2	-	2	2	-	-	2	-	-	-	-	-	-	-	-
Am. Coot	-	-	11	11	-	-	1	1	-	-	6	6	-	-	18	18
C. Gallinule	1	-	-	1	-	-	-	-	-	-	1	1	-	-	2	2
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals	154	137	12	303	276	288	1	565	84	68	7	159	526	495	20	1027

Summary of CWS Preseason Banding Activities - Maritime Provinces 1978

Station	Black* Duck	Mallard	American Wigeon	Blue-winged Teal	Green-winged Teal	Pintail	Shoveler	Wood Duck	Ring-necked Duck	Gadwall	Miscellaneous Species	Total
CWS Airboat Maritimes	139	10	89	345	313	34	27	16	30	4	20	1027
N.B.-N.S. Border Sackville Station	154 ✓	14	-	302	11	68	-	9	61	-	-	619
N.B.-N.S. Border Amherst Station	232	4	-	380	99	84	4	5	26	-	-	834
Montague Area P.E.I. Bait Station	171	-	4	58	32	4	-	3	-	-	1	273
U.S.A. Airboat Fredericton, N.B.	407	11	95	313	63	8	4	59	-	-	1	961
Experimental Station Northeastern New Brunswick	178	2	-	-	5	-	-	-	2	-	-	187
Totals	1281	41	188	1398	523	198	35	92	119	4	22	3901

\*Black Duck totals include 17 hybrids

Co-Operative Waterfowl Banding Cost Analysis - Maritime Provinces 1978

Station	Salaries	Cracked Corn	Gas & Oil Vehicles	Gas & Oil Boats	Materials Supplies & Repairs	Total Cost	Number of Birds	Cost per Bird	Number of Black Ducks	Cost per Black Duck
CWS Airboat Maritimes	1275.00	-	35.00	65.95	417.75 (repairs)	1793.70	1027	1.75	135	13.29
N.B.-N.S. Border Sackville Station	*2800.00 640.00	*205.00	*159.60 50.00	-	201.00 65.00	4120.60	619	6.65	152	27.11
N.B.-N.S. Border Amherst Station	*2700.00 640.00	*205.00	*189.00 50.00	-	*201.00 65.00	4050.00	834	4.85	222	18.24
Montague P.E.I. Bait Station	*2800.00 85.00	*122.77	*501.00 83.00	-	*97.53 65.00	3754.30	273	13.75	171	21.95
U.S.A. Airboat Fredericton, N.B.	**3558.00 *1400.00	-	**3249.13	-	*15.00 **2749.25	10,971.38	961	11.41	407	26.96
Experimental Stat. Northeastern New Brunswick	*295.30 840.00	*65.60	435.00	-	*145.53	1781.43	187	9.52	177	10.06
Totals	17,033.30	598.37	4751.73	65.95	4022.06	26,471.41	3901	6.79	1264	20.94
CWS funds						Total CWS funds	-4811.70			
*Co-op funds						" Co-op Funds	-12,103.33			
**Bureau Sport Fisheries and Wildlife						" Bureau Sport Fisheries and Wildlife funds	<u>-9556.38</u>			
						Total	-26,471.41			

<u>Particulars</u>	<u>Debit</u>	<u>Credit</u>
Grant in Aid		11,900.00
Accumulated Interest		66.02
N.B. Wire and Fence	441.18	
Amherst Co-Op	475.63	
P.E.I. Co-Op	122.77	
National Speciality	72.86	
Nedco Electric	75.00	
Wages - Tingley	1300.00	
" Young	1633.00	
" Di Bello	1400.00	
" Halpern	1400.00	
" Belyea	1400.00	
" Jenkins	1400.00	
" MacDonald	1400.00	
Travel - Young	252.00	
Di Bello	54.32	
Halpern	105.28	
Jenkins	152.00	
MacDonald	349.40	
Grant in aid		250.00
Interest Charges	3.36	
Total	12036.80	12212.02

Balance 175.22

Approved by W.R. Whitman  
Wildlife Biologist  
Waterfowl Project

Submitted by W.R. Barrow  
Wildlife Technician