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An Analysis of Band Returns of Black Duck
reared in Nova Scotia

Between the years 1951 and 1973, 1169 Black Duck were banded in Nova Scotia. In Table 1, following, the pattern of banding is shown by year and by location indicated by one degree blocks. The positions of those one degree blocks is shown on an accompanying map. Table 2 shows the sex of those same birds. It is apparent that the majority of those birds were banded in marshes near the New Brunswick border; this undoubtedly reflects a greater banding effort in that region and does not imply that one-half of the Black Duck reared in Nova Scotia were reared in that region.

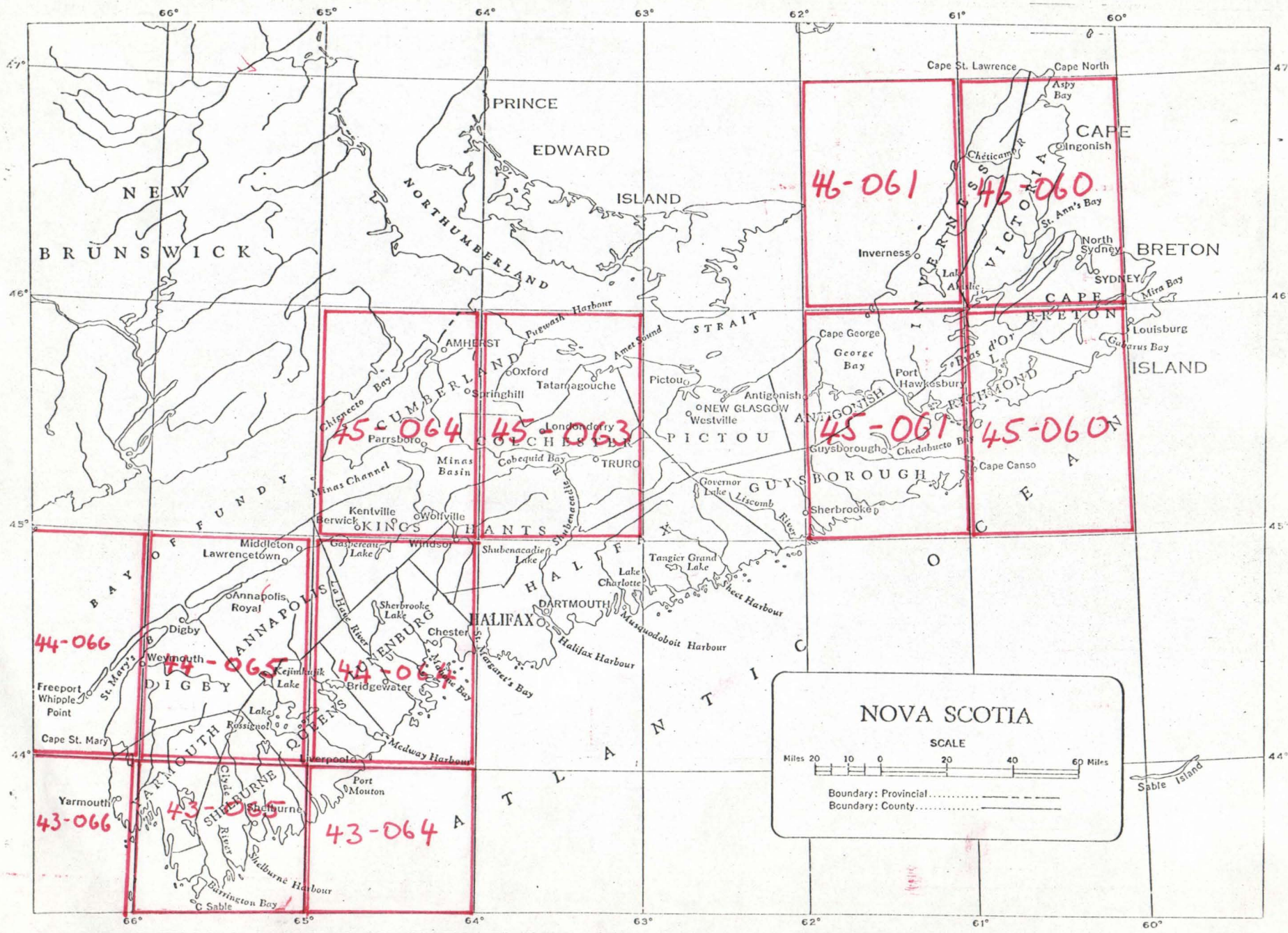
Of the 1169 birds banded, 190 had been recovered before the 10th of September, 1973, and Table 3 lists the locations of those recoveries. One hundred and fifty-seven (83 per cent) were in Canada and the remainder (17 per cent) were from the United States of America. One hundred and seventy-two returns came from hunters who had shot the birds, five birds were found dead, and four were retrapped alive in a different ten degree banding block. In total, 91 - 92 per cent of the returns were from hunters and some portion of the five birds found dead should be counted as hunting mortality.

The majority of recoveries were of birds less than one year old: 156 of the 186 age specific recovery records were of hatching year birds. Only 26.9 per cent of those hatching year birds were killed outside their natal marsh, contrasting with the 66.4 per cent of the birds over one year of age which were killed outside their natal marsh. Table 4 shows the details of recoveries of banded Black Duck.

The statistics presented here show an underestimate of after hatching year mortalities because the returns on the most recently banded birds have not yet come in; however, that is a very minor matter and those data taken with wing survey data give a good picture of the pattern of Mortality of Black Duck in Nova Scotia.

Table 1. Black Duck banded in Nova Scotia 1951 to 1973

Year	Block number											
	45060	46060	45061	46061	45063	44064	43064	45064	44065	43065	43066	44066
1951	-	-	-	-	-	-	-	4	14	1	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	2	-	14	-	-
1954	-	1	-	-	7	-	-	15	-	8	-	-
1955	-	31	6	-	-	-	-	22	-	25	-	-
1956	1	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	8	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	-	-	-	-	-	-	-	-
1964	-	-	-	-	-	-	-	1	-	17	2	16
1965	-	-	-	-	11	-	2	4	-	-	-	-
1966	-	-	-	-	-	-	-	14	-	-	-	-
1967	-	-	1	18	17	-	-	11	10	5	7	11
1968	-	4	4	4	12	-	-	25	-	-	-	-
1969	-	2	10	20	11	-	-	126	-	-	-	-
1970	-	-	9	24	6	-	-	79	-	-	-	-
1971	-	-	2	4	3	-	-	106	-	6	1	2
1972	-	-	-	1	3	-	-	163	-	9	10	9
1973	-	-	16	17	6	15	-	154	-	-	-	-
Totals	1	38	48	88	76	15	2	734	24	85	20	38



NOVA SCOTIA

SCALE

Miles 20 10 0 20 40 60 Miles

Boundary: Provincial.....

Boundary: County.....

Table 2. Black Duck banded in Nova Scotia 1951 to 1974

Year	Male	Female	Unknown	Total
1951	12	7	-	19
1952	-	-	-	-
1953	11	5	-	16
1954	18	13	-	31
1955	41	43	-	84
1956	-	1	-	1
1957	6	2	-	8
1958	-	-	-	-
1959	-	-	-	-
1960	-	-	-	-
1961	-	-	-	-
1962	-	-	-	-
1963	-	-	-	-
1964	17	19	-	36
1965	7	10	-	17
1966	6	8	-	14
1967	39	41	-	80
1968	27	22	-	49
1969	98	70	1	169
1970	61	56	1	118
1971	81	48	1	130
1972	99	88	2	189
1973	107	101	-	208
Totals	630	534	5	1169

Table 3. Places of recovery of Black Duck banded in Nova Scotia
1951 to 1973

Location	Number of recoveries	Per cent of total
Nova Scotia	120	63.2
New Brunswick	31	16.3
Massachusetts	8	4.2
New York	6	3.2
New Jersey	6	3.2
Prince Edward Island	4	2.1
Maine	2	1.1
Virginia	2	1.1
Rhode Island	2	1.1
Newfoundland	1	0.5
Maryland	1	0.5
New Hampshire	1	0.5
Connecticut	1	0.5
Delaware	1	0.5
Vermont	1	0.5
Pennsylvania	1	0.5
Florida	1	0.5
Quebec	1	0.5
Totals	190	100.0

Table 4. Place of mortality of Black Duck banded in Nova Scotia

	Natal marsh	Outside natal marsh
All kills	124 (65.3%)	62 (32.6%)
HY kills	114 (73.1%)	42 (26.4%)
AHY kills	10 (35.3%)	20 (66.4%)
Four entries in computer printout not usable		

Criterion: Place of banding and recovery positions were compared and if the sum of tens of minutes of the difference in latitude and longitude of those positions exceeded three it was assumed that the kill took place outside the natal marsh.