


1981 Waterfowl Production at the Germantown Marsh Section of Shepody National Wildlife Area, the Amherst Point Sanctuary Section of Chignecto National Wildlife Area and Wallace Bay National Wildlife Area and Comparison With Other Years.



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Canadian Wildlife Service

December 15, 1981

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## Introduction

Waterfowl brood surveys were conducted at the Germantown Marsh Section of Shepody National Wildlife Area, the Amherst Point Sanctuary Section of Chignecto National Wildlife Area and Wallace Bay National Wildlife Area in 1981. All seven impoundments and the natural marsh (total area 1170 acres) of the Germantown Marsh, the three impoundments (total area 530 acres) at the Amherst Point Sanctuary and the two freshwater impoundments (total area 300 acres) at Wallace Bay NWA were surveyed.

Each area was surveyed twice using a Bell Jet Ranger Helicopter rented from Codiac Helicopters Limited, Moncton, New Brunswick. The wetlands at the Germantown Marsh were surveyed on July 1 and July 23 and those at the Amherst Point Sanctuary and Wallace Bay NWA on June 24 and July 24. All broods observed on the second surveys that were old enough (according to the standard age classes) to have been present on the first coverage were eliminated and the two counts were combined.

The surveys were conducted by Ducks Unlimited Biologist, Keith McAloney and Canadian Wildlife Service Biologist, Peter Barkhouse with both agencies contributing to survey costs (DU was the major contributor). A small portion of the Tintamarre National Wildlife Area and most of the Missaguash Marsh Provincial Wildlife Management Area were also surveyed, but the results of those surveys are not reported here.

## Results

Results of the 1981 helicopter surveys conducted at Shepody, Wallace Bay and Chignecto National Wildlife Areas are presented in Tables 1, 3 and 5. A total of 105 waterfowl broods were observed at the Germantown Marsh for an overall density of one brood per 11.14 acres and one brood per 9.00 acres of developed marsh. The most productive unit was impoundment A with one brood per 3.00 acres. The 1981 survey results for the Germantown Marsh are compared with the results of 1977, 1978 and 1979 surveys in Table 2. It shows that the 1981 production was down from that reported in 1979, but still considerably higher than in 1977 and 1978. While Black Duck production has remained relatively constant, Green-winged Teal, Blue-winged Teal and Ring-necked Duck brood numbers have increased substantially since 1977. Other waterfowl species have not as yet responded to the increased availability of habitat at the Germantown Marsh.

A total of 63 waterfowl broods were observed at Wallace Bay NWA for an overall density of one brood per 4.76 acres. The 1981 survey results are compared with the results of 1978 and 1980 surveys in Table 4. The 1978 surveys were conducted by the Nova Scotia Department of Lands and Forests. The 1981 production was down from the 1980 production, but considerably higher than that in 1978. Conditions for waterfowl production in the Maritime Provinces were exceptionally favorable in 1980 and the Wallace Bay NWA survey results are a good illustration of that. Production by most waterfowl species has remained fairly constant at Wallace Bay NWA during the past few years with the exception of Ring-necked Duck which has increased substantially.

A total of 55 waterfowl broods were observed at the Amherst Point Sanctuary for an overall density of one brood per 9.64 acres. The 1981 survey results are compared with the results of surveys conducted in 1978, 1979 and 1980 in Table 6. Overall production and individual species production has remained fairly constant during the past four years. The one noticeable exception is the 1980 Green-winged Teal production. What the Amherst Point Sanctuary lacks in numbers it makes up for in variety of species. In all, broods of twelve waterfowl species including Gadwall, Redhead and Ruddy Duck have been observed there in the past few years.

Table 1. Number of Waterfowl Broods Observed at Shepody National Wildlife Area - Germantown Marsh during Helicopter Surveys Conducted in 1981<sup>1</sup>

Impoundment	Mallard	Black Duck	Green-winged Teal	Blue-winged Teal	Ring-necked Duck	Total
A	2	2	2	7	5	18
B	-	3	-	4	3	10
C	-	2	-	5	8	15
D	-	2	6	2	5	15
E	-	5	-	-	2	7
F	-	4	5	7	3	19
G	-	2	2	4	-	8
G <sub>1</sub>	-	2	-	2	-	4
Natural Marsh	-	2	1	3	3	9
Total	2	24	16	34	29	105

<sup>1</sup> Combined results of surveys conducted July 1 and July 23 with a correction factor applied to eliminate repeat observations.

Table 2. Numbers of Waterfowl Broods Observed at Shepody National Wildlife Area - Germantown Marsh during Helicopter Surveys<sup>1</sup>

Species	1977	1978	1979	1981
Mallard	-	-	1	2
Black Duck	20	21	29	24
Pintail	-	-	1	-
Green-winged Teal	5	6	7	16
Blue-winged Teal	7	21	38	34
Northern Shoveler	1	-	1	-
Ring-necked Duck	4	11	40	29
Total	37	63	117	105

<sup>1</sup> Combined results of two surveys each year with a correction factor applied to eliminate repeat observations

Table 3. Number of Waterfowl Broods Observed at Wallace Bay National Wildlife Area during Helicopter Surveys Conducted in 1981<sup>1</sup>

Impoundment	Black Duck	Pintail	G.-w. Teal	B.-w. Teal	Wigeon	R.-n. Duck	Hooded Merganser	Total
1	7	-	5	14	1	10	-	37
2	3	-	4	7	-	5	-	19
2 extension	1	1	-	2	-	2	1	7
Total	11	1	9	23	1	17	1	63

<sup>1</sup> Combined results of surveys conducted June 24 and July 24 with a correction factor applied to eliminate repeat observations.



Table 4. Numbers of Waterfowl Broods Observed at Wallace Bay National Wildlife Area during Helicopter Surveys<sup>1</sup>

Species	1978	1980	1981
Black Duck	11	18	11
Pintail	-	3	1
Green-winged Teal	8	19	9
Blue-winged Teal	23	26	23
Wigeon	1	1	1
Northern Shoveler	1	3	-
Redhead	-	2	-
Ring-necked Duck	3	6	17
Hooded Merganser	-	-	1
Total	47	78	63

<sup>1</sup> Combined results of two surveys each year with a correction factor applied to eliminate repeat observations.

Table 5. Number of Waterfowl Broods Observed at Chignecto National Wildlife Area - Amherst Point Sanctuary, during Helicopter Surveys conducted in 1981<sup>1</sup>:

Impoundment	Mallard	Black Duck	Gadwall	Pintail	G.-w. Teal	B.-w. Teal	Wigeon	Wood Duck	Redhead	R.n. Duck	Total
1	2	15	1	1	-	1	1	1	1	4	28 <sup>27</sup>
2	-	3	-	-	7	5	2	-	-	7	24
3	1	-	-	-	-	1	-	-	-	1	3
Total	3	18	1	1	7	7	3	1	1	12	55 <sup>54</sup>

<sup>1</sup> Combined results of surveys conducted June 24 and July 24 with a correction factor applied to eliminate repeat observations.

Table 6. Numbers of Waterfowl Broods Observed at Chignecto National Wildlife Area - Amherst Point Sanctuary during Helicopter Surveys<sup>1</sup>

Species	1978	1979	1980	1981
Mallard	1	-	-	3
Black Duck	13	17	18	18
Gadwall	1	-	1	1
Pintail	6	1	7	1
Green-winged Teal	6	4	18	7
Blue-winged Teal	10	7	9	7
Wigeon	1	2	2	3
Northern Shoveler	1	-	-	-
Wood Duck	1	-	2	1
Redhead	-	-	-	1
Ring-necked Duck	8	11	7	12
Ruddy Duck	-	-	2	-
Total	48	42	66	55 <i>584</i>

<sup>1</sup> Combined results of two surveys each year with a correction factor applied to eliminate repeat observations.