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An Investigation of the 1975-76
Special Waterfowl Hunting Regulations
in Southwest Nova Scotia

by

Peter Barkhouse
March, 1976



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**An Investigation of the 1975-76
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**Peter Barkhouse
Habitat Biologist
Canadian Wildlife Service
Sackville, New Brunswick**

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INTRODUCTION

Since 1915 legislation has been in effect to protect waterfowl in the Port Joli area of Nova Scotia. In that year a Provincial Sanctuary was established in the Port Joli Harbour to protect "wild geese" from hunting pressure. Although protective legislation has been in effect since 1915, it has been subject to repeated review over the years. Problems with enforcement along with concern over the provision of adequate protection for waterfowl and provision of desired hunting opportunity has prompted those reviews. Consequently in attempting to achieve the most desirable solution the Sanctuary has been modified on six occasions. Between 1919 and 1935, there was a substantial increase in its coverage with the inclusion of large portions of Port Hebert Harbour and Sable River estuary. In 1941 the Provincial Sanctuary was abolished and replaced by a Federal Migratory Bird Sanctuary. Nine years later the sanctuary coverage was reduced drastically to approximate that of 1919 and in 1975 it was cancelled and two special waterfowl management zones established. Details of those changes are presented in Table 1 and Figure 1.

Between 1960 and 1969, two comprehensive investigations and a major study were conducted at Port Joli (Erskine, 1961; Fyfe, 1966; and Martell, 1969). The former two dealt almost solely with problems associated with enforcement of Sanctuary regulations; the later was a comprehensive study of the winter waterfowl ecology of the Port Joli area. Out of those studies came recognition and clarification of problems involved with enforcement along with awareness and knowledge of the

areas' ecology and its interrelationships with waterfowl. The reports made suggestions and recommendations to provide a desirable and workable system.

Based primarily on Martell's 1969 report the old "Port Joli" Sanctuaries were abolished in 1975 and replaced with two zones under Schedule A of the Migratory Birds Regulations. One reason for the change was to provide a more flexible system. Sanctuary regulations are rigid and boundary changes are difficult to enact, whereas management zones established under Schedule A of the Migratory Birds Regulations may incorporate special seasons or close areas entirely to waterfowl hunting, and can be revised annually if necessary.

The boundaries and regulations of the management zones, illustrated and described in Figure 1 and Table 1, incorporate several changes. One difficulty of the former Sanctuary was its division into three separate units, which in effect made it three separate sanctuaries. To provide a more consolidated system, the Port Joli Harbour unit was dropped and the Port Hebert and Sable River units enlarged. According to Martell (1969) Port Hebert Harbour alone has the biological capacity to support more waterfowl than normally winter in the Port Joli area.

In the past, lack of enforceable sanctuary boundaries has always posed a serious problem. Set out as the high water mark, hunters were allowed to shoot from the shore at birds flying overhead. Differing interpretations of the boundary limit made it difficult to make convictions stand in court. The upland border (200 yds) around the new management zones now makes it clearly illegal to shoot from the shoreline.

The Sable River unit of the former Port Joli Sanctuary provided only a minimum amount of beneficial protection for waterfowl as it was normally frozen over by the time large numbers of waterfowl began to frequent the estuary. The lower estuary, however, remains open even during winters of severe icing when it is of critical importance to waterfowl. The new Sable River Management Zone which includes the lower estuary (Figure 1) is closed to hunting following January 2 to ensure that waterfowl are afforded protection during winters of severe freezing.

Following those changes in 1975, a study was designed to monitor the effectiveness of the new zone. Attention was focused on waterfowl movement and hunting activities associated with those regulations, however, data was obtained for a much larger area as shown in Figure 2. This report presents findings and discussion of that investigation as well as recommendations pertaining to future hunting regulations for that area.

WATERFOWL - CONCENTRATIONS AND MOVEMENTS

Systematic waterfowl counts following the survey procedures employed by Martell (1969) and Sutherland (1973) were made on each visit to the Port Joli area (October 12 to 15, 1975; November 14 to 17, 1975, and December 16, 1975). Lower Port Joli Harbour was the first of eight sub-units in the area to be surveyed (Figure 2). The counts were begun at about two hours prior to low tide and were usually completed before the tide was half high which corresponded to the most intensive feeding period of Canada Geese and Black Duck. The first two visits were scheduled to provide a count period which included the two days prior to opening day, opening day and the following one or two days. (The season opened on October 14, closed on October 31, and re-opened on November 15). The area was also covered on an aerial waterfowl survey of the southwestern Nova Scotia coastline on January 13, 1976.

In addition to the regular counts, non-systematic observations were made of the salt water areas and several freshwater lakes. Information concerning waterfowl location and movement was also obtained from local residents particularly hunters, who were considered to be reliable observers.

Canada Goose and Black Duck survey counts are presented in Tables 2 and 6. The following account expands on the location and movements of those waterfowl which are reflected by those data.

October 12 to 15 period

About two-thirds of the geese observed in the Port Joli area on October 12 and 13 were in Lower Port Hebert Harbour. Upper Port Joli

Harbour held most of the remainder. Those in Lower Port Hebert were feeding all along the western side of the harbour to a point across from the old fishing wharf at East Side Port Hebert.

On October 14, the first day of the waterfowl season, Port Joli Harbour was completely open to hunting for the first time since 1915. Shortly after the shooting began, Black Duck moved out of Port Joli Harbour and concentrated in Upper Port Hebert, but by survey time they had moved on, apparently completely out of the investigation area. Small flocks of geese attempted to fly into the upper harbour for most of the morning and some managed to alight in open water away from hunters, but by noon they had all moved over to Port Hebert Harbour.

Hunters were set up on Taylor Island, just outside the Port Hebert Management Zone (Figure 2) and one hunter was observed hunting from the shore well within the zone. Geese shifted up the harbour, many into the upper harbour, while those remaining in the lower unit were concentrated near Cox Creek and Rocky Cove.

The only waterfowl observed in the other survey units prior to the season were those at Matthews Lake, however, hunters reported that geese had been feeding regularly in the Banguy's Ledge area of Sable River Estuary and at Jones Harbour. All of those locations are traditional hunting sites and as soon as the season opened the normal waterfowl feeding activity was interrupted, but they continued to maintain late evening flights.

Haley Lake, which lies between Port Hebert Harbour and Sable River Estuary (Figure 2) is frequented by geese and Black Duck during the early fall period. Those waterfowl fly to the lake as the tide rises

covering feeding sites in the harbours and estuary. On October 13, the first geese arrived in the lake at 12:35 p.m., approximately two hours and twenty minutes after low tide. They were still coming in one hour later at which time there were about 500 geese in the lake. On the following day the flight began at 1:30 p.m., right on schedule. The hunting pressure and activity at Haley Lake on that day is described in some detail in Appendix I. The consequence of the intensive hunting pressure at Haley Lake on opening day was a sudden termination of the normal flight into the lake. According to local residents a small number of geese were again flying to the lake in early November, but as soon as the season re-opened the flight again came to an end.

Geese did not fly to Wilkins Lake (Figure 2) this past fall, making it the second consecutive fall that they did not frequent that lake. There were reports of heavy poaching at Wilkins Lake in previous years, which probably accounts for the absence of the flight the past two falls. Geese also fly into Robertson Lake adjacent to Port Joli Harbour before the season opens, but shortly after opening day the flight terminates.

Geese were again feeding in Upper Port Joli Harbour on October 15, but those in Port Hebert continued to feed further up the harbour than they had prior to the season.

November 14 to 17 period

The mid-November goose count was about 600 fewer than mid-October count, but the Black Duck count was about 700 greater. According to reports of residents, geese had continued to feed in Port Joli Harbour

throughout the October season, but Black Duck had only returned a few days prior to November 14. Geese were observed in Lower Sable River Estuary and Jones Harbour for the first time. Strong winds and rough seas on November 14, may have accounted for their unusual daytime occurrence in Jones Harbour, but according to local residents a few hundred had been feeding daily at Banguy's Ledge following closure of the first season.

On November 15, when the hunting season re-opened, geese in Upper Port Joli Harbour exhibited the same strong desire to remain as they had during the previous season by flying up and down the harbour for most of the morning before moving over to Port Hebert Harbour. The seas continued to be very rough and it appears from the Port Hebert counts that the geese from the other units had also moved into that harbour. Hunting pressure at Jones Harbour, Sable River and Matthews Lake was again intensive as it had been during the first season opening day.

The following day was Sunday and about the same number of waterfowl were feeding in Upper Port Joli Harbour as had been there prior to the season. Geese in Lower Port Hebert had been flushed up the harbour just prior to the survey by fishing boats from East Side Port Hebert. Fishermen were preparing for the lobster season which opened on November 24. Although most boats worked from the Government Wharf across from Taylors Island, it was not unusual for them to travel some distance into the management zone.

On November 17 the goose count was less than half that of the previous three days. The seas had subsided following the November 14 storm and it is possible that geese were rafted up at sea, however, there

were also reports of geese flying in a southwesterly direction over Lockeport early on that morning.

December 16, 1975

The December 16 goose count was about the same as that on November 17. Local residents had also noted a marked reduction in the number of geese since about November 17. The number of Black Duck had also declined substantially in the intervening period. Geese continued to feed in Upper Port Joli despite continuous hunting pressure. Geese were not observed at Jones Harbour, Matthews Lake and Sable River Estuary, however, as before, hunters reported that they had been tending those sites regularly.

January 13, 1976

The number of geese in the study area on January 13, 1976 approached the mid-October and mid-November counts. The majority on that date, however, were concentrated in the Banguy's Ledge - Nubbles area of Sable River Estuary together with about 500 Black Duck. That area, as part of the Sable River Management Zone, had been closed to hunting since January 3 and the waterfowl appeared to be taking advantage of the early protection they had been afforded. The upper harbours and estuary were almost completely frozen over, however, there were nearly 1,000 geese and Black Duck as well as 250 Scaup and 165 Goldeneye in Port Hebert Harbour and about 150 Black Duck in Port Joli.

The geese recorded for Jones Harbour and Matthews Lake on January 13, 1976 were in the sea just outside those units.

COMPARISON WITH PREVIOUS SURVEYS

The "Port Joli Area" Canada Goose and Black Duck fall and winter survey counts for the years 1968-69, 1971-72, and 1972-73 are presented in Tables 3 to 5, and 7 to 9. The 1968-69 surveys were conducted by Martell (1969) while studying winter waterfowl ecology of the area, the 1971-73 surveys were done by Mr. L. Sutherland who served as a sanctuary caretaker during that period. It is apparent from those data that the number of geese present in the "Port Joli Area" during the fall and winter period varies markedly from year to year. The 1968-69 goose counts are similar to those of 1971-72, and the 1972-73 numbers are similar to those of 1975-76, but the peak numbers of the latter two are less than half the peak numbers of the former two. A relatively consistent aspect of the four sets of counts, however, is the seasonal fluctuation. In each of those years, the number of geese peaked in early fall (October and early November), dropped during the latter part of November and the first part of December and then increased through the late December and early January period to numbers approaching those of early fall. The same basic seasonal pattern for the 1962-68 period was presented by Martell (1969).

Local residents refer to the early fall geese as "flight geese" believing that those geese move on further. Survey data tend to support that and demonstrate that more than half of the early geese move out of the area, probably to the south, some perhaps just further along the Nova Scotia coast. The later influx may be geese that move down from Prince Edward Island, the northern coast of Nova Scotia, Minas Basin and perhaps the Musquodoboit Harbour area. Erskine (1961)

reported that the January 1961 influx at Port Joli corresponded with the disappearance of geese from Nova Scotia's Northern coast.

Comparison of survey unit counts of this investigation with those of previous surveys cannot readily be made because of the marked variability in the previous data; however, with that in mind the following points are made:

- (1) The Upper Port Joli counts were consistently lower than the previous counts, particularly during the late December early January period when that harbour formerly held significant portions of the goose populations. Sutherland (1973) observed about fifty per cent of the total goose count in Upper Port Joli on December 15, 1972 and January 2, 1973. He also reported high proportions on December 15, 1971 and January 4, 1972. Both Martell (1969) and Sutherland (1972) reported significant numbers of Black Duck for Port Joli Harbour throughout the survey periods.
- (2) The Lower Port Hebert goose counts were consistently higher throughout this survey period than in previous years. Former reports show significant numbers of geese and Black Duck in Upper Port Hebert, but Martell (1969) recorded geese only once in the lower harbour and while Sutherland (1973) reported relatively large numbers on a few surveys, there were always larger numbers in the upper harbour the same day. Geese were rarely recorded in the lower harbour on surveys after the middle of November.
- (3) Large numbers of waterfowl were reported only once in the Lower Sable River Estuary prior to January 19. Nearly

1,600 geese and 500 Black Duck were observed on the only survey conducted during this investigation in the early January period.

DISCUSSION

The finding and discussion presented in this report must be considered preliminary. It will require one more year and perhaps longer to adequately evaluate the effectiveness and desirability of the present regulations. It is therefore essential that the regulations remain basically as they are now for at least one more year. There are, however, a number of points for discussion and consideration at this time which are presented under the following headings.

A. Port Joli

Although waterfowl continued to feed in Upper Port Joli Harbour throughout the season it was apparent both from observations during the season and comparison with former data that the numbers were kept low by the hunting pressure. Black Duck moved out of the harbour as soon as the season opened and the number of geese decreased by more than fifty per cent.

Hunters were generally pleased to have the harbour open for hunting, but many expressed reservations about the value in terms of hunting opportunity. On opening morning as expected there were many hunters in and around the upper harbour and several experienced a short period of good hunting. However, following that most successful hunting was restricted to McAdam's Ledges with very little good opportunity around the shoreline.

McAdam's Ledges are relatively small and no more than five or six men can shoot from there at one time. It was apparent, however, that the presence of hunters on the ledges and their activities which included the use of row boats and outboard motor boats had a marked

influence on the waterfowl. Outboard motor boats were also used in attempting to move rafted geese towards hunters. It is probable that there would be more hunting opportunity if shooting from the ledges and within the harbour were prohibited. More waterfowl would almost certainly remain in the harbour.

Port Joli Harbour affords an excellent opportunity to view feeding Canada Geese and Black Duck during the fall. Many people travelling through Port Joli pull off the highway to observe those waterfowl at close range. Many local residents make special trips to watch in particular the impressive flocks of Canada Geese as they feed in eelgrass beds at the head of the harbour. Port Hebert Harbour affords an even more impressive waterfowl sight than Port Joli, but is hidden to the passer by. Local people, however, know of the opportunity and many view the spectacular sight from the vantage point at the Department of Lands and Forests camp at Granite Village. I believe at some point we must consider the non-consumptive use of the waterfowl resource and take the necessary steps to provide facilities and encouragement for such activities as viewing, photographing and interpreting the natural history of that resource. Port Hebert Harbour is an ideal location for such activities.

B. Port Hebert

It was apparent that Port Hebert Harbour afforded waterfowl the desired protection. As anticipated, waterfowl driven out of areas open to hunting such as Port Joli, moved into Port Hebert Harbour to add to the significant numbers already there.

There were a number of hunters, particularly fishermen at East Side Port Hebert, that complained about the loss of hunting opportunity. There were more general complaints by hunters from as far away as Lockeport concerning the loss of goldeneye and scaup shooting in Lower Port Hebert. According to those hunters, Port Hebert Harbour is the only location in the Port Joli area where large numbers of those species occur. That is substantiated by our survey data.

For the most part Port Hebert Harbour is inaccessible except by boat and long hikes on foot. There is a feeling that that inaccessibility increases the opportunity for poaching. Martell (1969) suggested that access roads along the sides of the harbour would facilitate enforcement efforts. It is questionable whether those roads would enhance enforcement efforts or if, in fact, they would increase the opportunity for poaching.

There was little evidence of illegal hunting in Port Hebert Harbour and although fishermen at East Side Port Hebert and others reported poaching, their reports were not substantiated. The incident on opening morning when one hunter was seen in the Management Zone was the only occasion that waterfowl were known to be disturbed by hunting. The activity and behaviour of waterfowl during the remainder of the season gave no indication of further illegal hunting in Port Hebert Harbour.

Fishing in Lower Port Hebert, particularly during the lobster season, which began around the middle of November, appeared to disturb waterfowl in the Lower Harbour. Although not entirely necessary, many boats travelled some distance above the old wharf at East Side Port Hebert which caused geese to move away from eelgrass beds along the west side of the harbour.

C. Sable River

The Sable River Estuary regulations were accepted very favourably from all reports and personal communications with several hunters. Slaughters at Banguy's Ledge like that during the winter of 1964 are looked back upon with regret and displeasure and a regulation to prevent such a slaughter from occurring again was welcomed by hunters and non-hunters alike.

One unfortunate aspect of the regulations is that the total harvest for the Port Joli area may be reduced substantially. Previous investigators such as Erskine (1961) and Fyfe (1966) indicated that a large portion of the harvest normally occurs in Sable River during January. In their opinion the population is under-harvested even with that late season kill.

It can be expected that hunters will eventually complain about a loss of hunting opportunity despite their initial acceptance of the regulations.

D. Haley Lake

It is recommended that Haley Lake be closed to hunting. A proposal to zone Haley Lake under Schedule A of the Migratory Birds Regulations with a no open season for waterfowl hunting from the lake and a 100-foot upland border is presented in Appendix I. Background information and justification for the recommendation are presented in that proposal.

E. Jones Harbour and Matthews Lake

A few hundred geese and Black Duck feed regularly in Jones Harbour and Matthews Lake throughout the fall and into winter. After the season opens they feed primarily during late evening and at night. Intensive and continuous hunting throughout the season at Jones Harbour and Matthews Lake normally results in a significant waterfowl harvest. The close proximity of those areas to Sable River and Port Hebert adds significantly to their value as hunting sites. It is essential that there be such areas if the imposition of special restrictive regulations at other locations is to be accepted favourably by the hunting public.

F. Habitat Capacity

Closely interrelated habitat components of the Port Joli area, particularly its unique physiographic features and abundant food supply account largely for its importance as winter waterfowl habitat. The importance of eelgrass as winter waterfowl food in the Port Joli area has long been appreciated and was scientifically qualified by Martell (1969). According to Martell (1969) the quantity of eelgrass at the time of his investigation was capable of supporting substantially larger numbers of geese than normally winter there. Eelgrass however, is very susceptible to dramatic fluctuations in abundance as was so evident during the early 1930's, the period of the great eel grass die-off. There have been other less dramatic eelgrass declines reported in the literature (Cottam and Munro, 1954; and Martin, 1954).

Because eelgrass is critically important and susceptible to fluctuations I believe that it is necessary to regularly monitor its status if we are to be in a position to make proper decisions regarding

special hunting regulations for the "Port Joli Area". Monitoring can be done with a minimum amount of time and effort by sampling strategic sites during August when the plants acquire maximum length. Permanent sample plots can be established and marked using land bearings and sampling can best be accomplished at high tide with the use of a canoe or small flat bottomed boat.

RECOMMENDATIONS IN BRIEF

1. Continue present regulations and monitoring of those regulations for at least one more year.
2. Establish Haley Lake Zone under Schedule A of the Migratory Birds Regulations with no open season for migratory birds.
3. Establish a standardized system to monitor the status of eelgrass in the Port Joli area.

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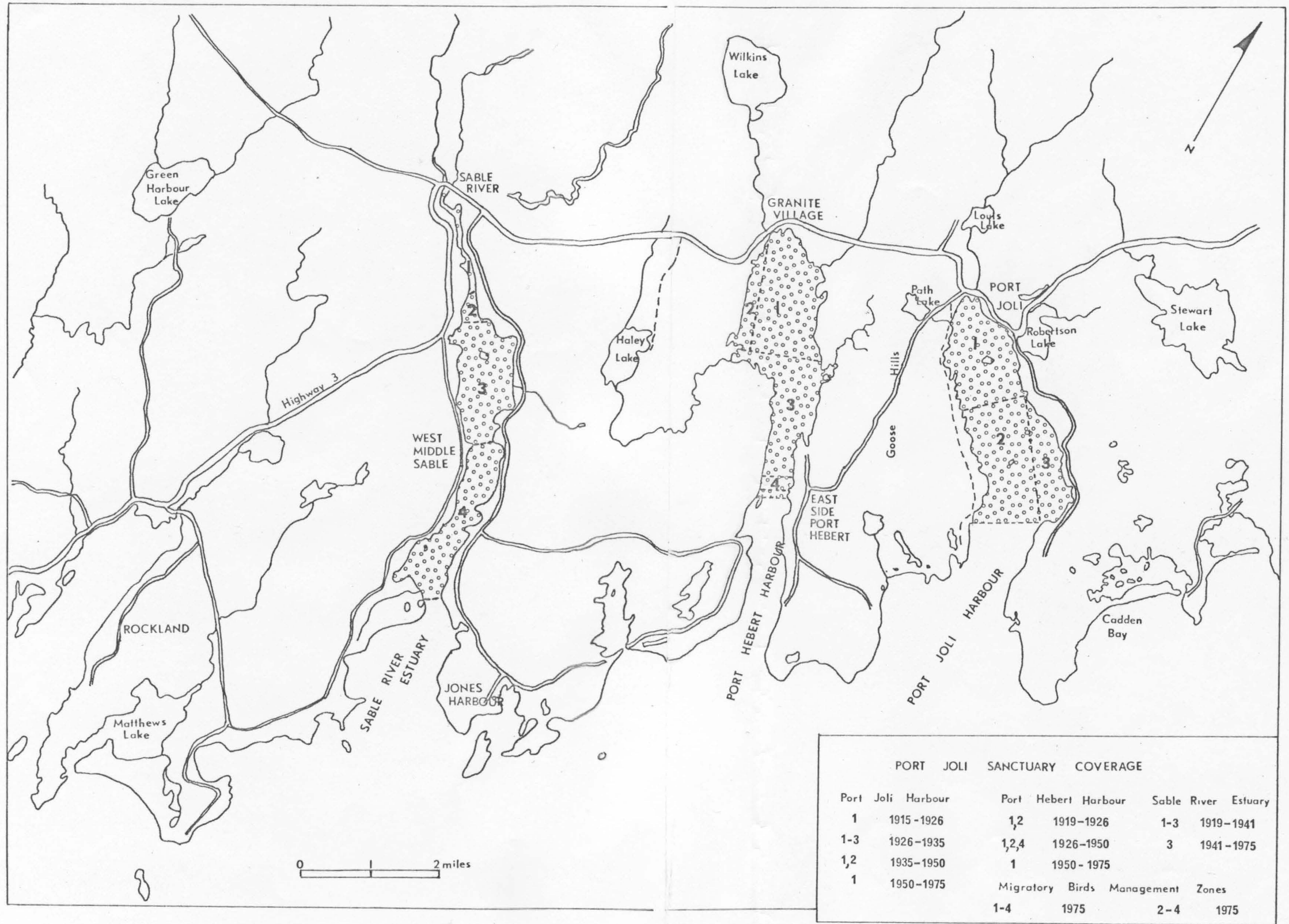


Figure 1 Map of Port Joli Area showing former Port Joli Sanctuary and 1975 Management Zones

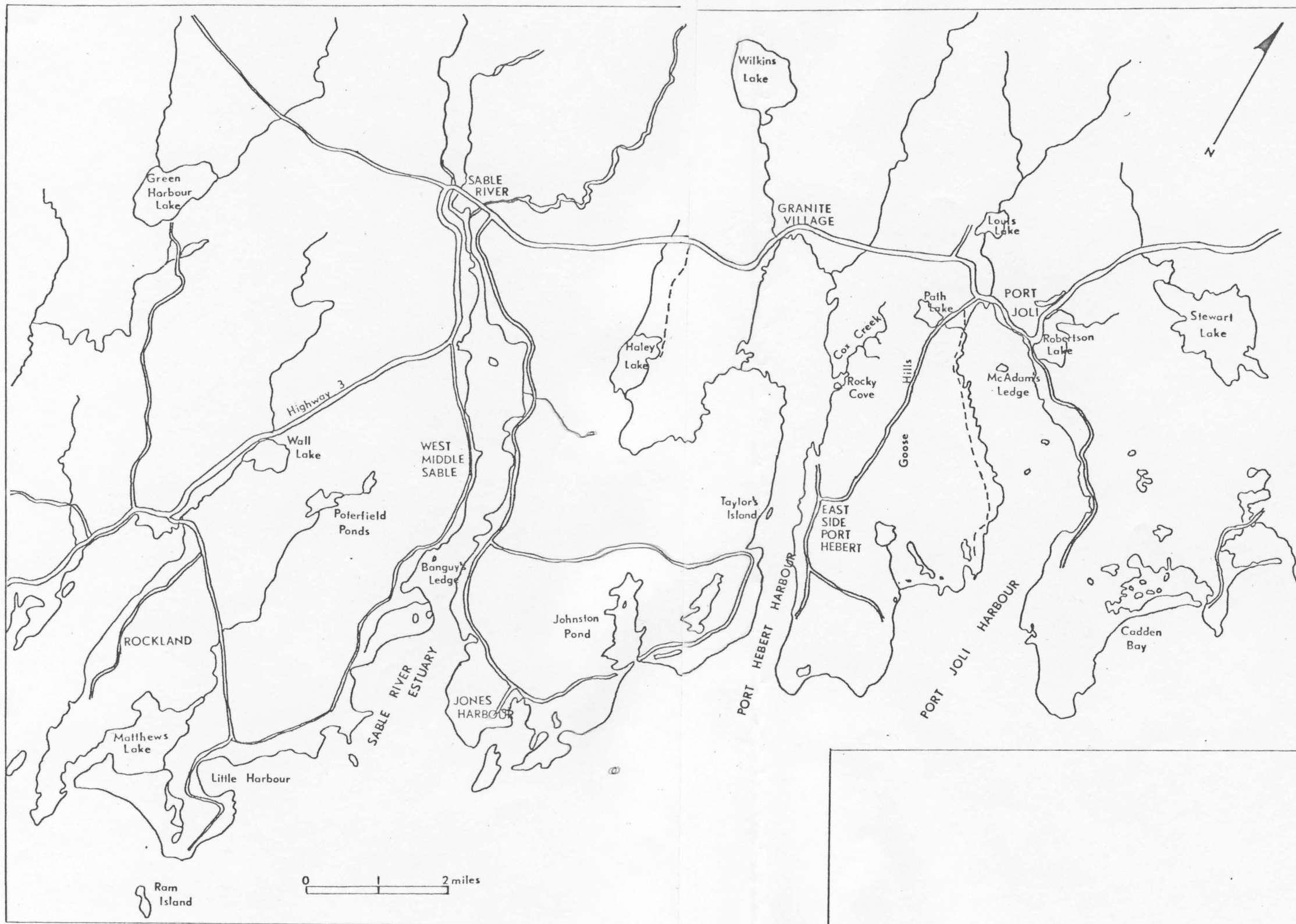


FIGURE 2 Map of Port Joli Area

Table 1. History outline of Port Joli Sanctuary

Date	Description
1915	Provincial sanctuary was set up in Port Joli Harbour above the public wharf to protect "wild geese". Hunting was permitted above the high water mark.
1919	The head of Port Hebert Harbour above Timber Island and Sable River above McAdams Bridge were added to the Sanctuary, which now protected "geese" or other waterfowl.
1926	The Sanctuary was enlarged to include all of Port Joli Harbour above Forbes and Scotch Points and to include a section of lower Port Hebert Harbour between H.B. Nickerson's wharf and William MacDonald's reef.
1935	The area from Bijou Rocks, Port Joli to the shore was removed from the Sanctuary.
1941	Federal Government took over responsibility for Sanctuary (Order in Council, P.C. 7333). The same boundaries were kept, except for limiting the upper boundary of the Sable River section to a line 2½ miles above MacAdams Bridge.
1950	The boundaries were reduced to approximately those of 1919 with a further reduction in Port Hebert to open the harbour west of a line from the mouth of Granite Brook to Timber Island (Order in Council, P.C. 5026).
1975	The Port Joli Federal Bird Sanctuary was cancelled effective September 30, 1975. In its place two special migratory waterfowl hunting zones were established as set forth in Schedule A (Part III) of the Migratory Birds Regulations (1975).

Table 2. Canada Goose numbers - Port Joli Area, 1975-76

Date	Port Joli		Port Hebert		Sable River		Jones Harbour	Matthews Lake	Total
	Upper	Lower	Upper	Lower	Upper	Lower			
October 12, 1975	500	-	100	2130	-	-	-	Not surveyed	2,730
October 13, 1975	760	85	100	2165	-	-	-	380	3,490
October 14, 1975*	16	-	1800	1290	Not surveyed		Not surveyed		3,106
October 15, 1975	215	-	1600	1440	-	-	Not surveyed		3,255
November 14, 1975	450	-	250	1200	-	265	200	210	2,575
November 15, 1975*	-	600	500	1750	-	-	-	-	2,850
November 16, 1975	500	-	2200	-	Not surveyed		-	-	2,700
November 17, 1975	-	250	530	450	-	-	-	-	1,230
December 16, 1975	225	21	225	550	-	-	-	-	1,021
January 13, 1976**	-	-	-	605	-	1591	250	350	2,796

* Opening day

** Aerial survey

Table 3. Canada Goose numbers - Port Joli Area, 1972-73

Date	Port Joli		Port Hebert		Sable River		Jones Harbour	Matthews Lake	Total
	Upper	Lower	Upper	Lower	Upper	Lower			
October 1, 1972	1510	-	-	1600	-	635	-	7	3,752
November 1, 1972	1152	-	530	920	-	25	-	185	2,812
November 17, 1972	640	-	1250	-	-	-	-	410	2,300
November 29, 1972	536	-	825	-	9	123	-	97	1,591
December 15, 1972	1225	-	1150	-	190	-	-	-	2,565
January 2, 1973	1250	-	30	25	1150	-	-	-	2,455
January 21, 1973	98	-	1650	-	750	-	-	67	2,565
February 1, 1973	-	-	-	-	-	3100	-	32	3,132

Table 4. Canada Goose numbers - Port Joli Area, 1971-72

Date	Port Joli		Port Hebert		Sable River		Jones Harbour	Matthews Lake	Total
	Upper	Lower	Upper	Lower	Upper	Lower			
October 1, 1971	1300	90	745	205	-	280	-	108	2,728
October 26, 1971	-	-	4810	1900	-	-	215	225	7,140
November 5, 1971	375	-	4200	2600	-	235	-	-	7,410
November 17, 1971	285	-	1440	76	-	183	242	820	3,046
December 15, 1971	725	-	1250	-	15	-	-	-	1,990
January 4, 1972	783	3	920	-	210	-	-	39	1,955
January 19, 1972	2800	-	2300	-	200	223	-	43	5,566
February 1, 1972	625	678	1100	15	-	1472	-	320	4,208

Table 5. Canada Goose Numbers - Port Joli Area - 1968-69

Date	Port Joli		Port Hebert		Sable River		Jones	Matthews	Total
	Upper	Lower	Upper	Lower	Upper	Lower	Harbour	Lake	
October 10, 1968	1800	-	2200	-	-	-	-	150	4,150
October 23, 1968	-	1800	5500	500	-	125	-	275	8,200
November 7, 1968	2200	-	4500	-	-	500	20	500	7,730
November 21, 1968	900	-	4800	-	-	600	30	500	6,830
December 9, 1968	250	750	3900	-	-	-	-	23	4,932
December 20, 1968	-	1100	3000	1800	-	-	-	50	5,950
January 6, 1969	3300	300	500	-	-	2500	500	25	7,125
January 21, 1969	3700	23	1100	-	300	800	-	700	6,623

Table 6. Black Duck numbers - Port Joli Area, 1975-76

Date	Port Joli		Port Hebert		Sable River		Jones	Matthews	Total
	Upper	Lower	Upper	Lower	Upper	Lower	Harbour	Lake	
October 12, 1975	414	2	500	170	1	-	-	Not surveyed	1,087
October 13, 1975	380	-	325	2	-	-	-	150	887
October 14, 1975*	-	-	500	-	Not surveyed		Not surveyed	Not surveyed	500
October 15, 1975	20	-	450	20	-	-	-	-	490
November 14, 1975	225	-	1050	35	-	5	-	15	1,330
November 15, 1975*	11	200	1550	-	-	-	-	-	1,760
November 16, 1975	260	-	1500	-	- Not surveyed		Not surveyed	-	1,760
November 17, 1975	-	50	1200	-	-	-	-	-	1,250
December 16, 1975	11	-	1000	-	-	5	-	-	1,016
January 13, 1976**	152	-	-	450	-	480	-	160	1,242

* Season opened

** Aerial survey

Table 7. Black Duck numbers - Port Joli Area, 1972-73

Date	Port Joli		Port Hebert		Sable River		Jones	Matthews	Total
	Upper	Lower	Upper	Lower	Upper	Lower	Harbour	Lake	
October 1, 1972	460	-	311	78	-	32	37	55	973
November 1, 1972	325	-	725	-	13	-	-	-	1,063
November 17, 1972	363	-	660	-	15	-	-	-	1,038
November 29, 1972	265	-	565	-	97	-	-	35	962
December 15, 1972	145	-	750	-	62	11	-	35	1,003
January 2, 1973	460	-	395	30	260	-	-	-	1,145
January 21, 1973	600	-	450	-	130	-	-	-	1,180
February 1, 1973	73	-	-	-	-	390	285	88	836

Table 8. Black Duck numbers - Port Joli Area, 1971-72

Date	Port Joli		Port Hebert		Sable River		Jones Harbour	Matthews Lake	Total
	Upper	Lower	Upper	Lower	Upper	Lower			
October 1, 1971	670	-	270	21	34	-	40	48	1,083
October 26, 1971	390	-	400	-	124	-	-	75	989
November 5, 1971	284	-	460	-	25	2	2	-	773
November 17, 1971	340	-	307	-	56	17	66	-	786
December 15, 1971	367	-	316	-	280	-	-	35	998
January 4, 1972	347	7	545	-	297	-	-	-	1,196
January 19, 1972	368	-	625	-	145	-	-	32	1,170
February 1, 1972	210	482	520	-	-	182	-	91	1,485

Table 9. Black Duck numbers - Port Joli Area, 1968-69

Date	Port Joli		Port Hebert		Sable River		Jones	Matthews	Total
	Upper	Lower	Upper	Lower	Upper	Lower	Harbour	Lake	
October 10, 1968	225	12	475	-	-	12	-	18	742
October 23, 1968	325	850	600	25	35	100	36	37	2,008
November 7, 1968	425	330	1100	-	125	160	60	212	2,412
November 31, 1968	800	45	1000	150	90	100	125	400	2,710
December 9, 1968	625	-	1200	-	40	12	14	15	1,906
December 20, 1968	700	63	1800	61	-	18	-	67	2,709
January 6, 1969	800	-	1600	-	-	6	-	11	2,417
January 21, 1969	800	-	3100	-	-	18	-	1000	4,918
February 7, 1969	900	175	3300	-	-	12	175	500	5,062

Appendix I. A proposal to zone Haley Lake, Shelburne County, Nova Scotia under Schedule A of the Migratory Birds Regulations with no open season for waterfowl hunting.

Location

Haley Lake is located in Shelburne County, Nova Scotia at latitude 43°50', longitude 65°00'20". Situated approximately midway between Port Hebert Harbour and Sable River Estuary, the lake is about 1.5 miles south of Highway 103.

Description

Typical of most lakes of the granite based Southern Uplands of Nova Scotia, Haley Lake is shallow and rocky. Several prominent rock outcroppings surrounded by gravel deposits lie within the 230 acre lake whose waters and substrate of low nutrient content are incapable of supporting more than scattered plant life. Its shores of large granite boulders are encroached upon by thick shrub growths of sweet gale and speckled alder, and to the east and west of the lake, the land rises abruptly and encloses the lake with prominent woodland ridges.

Justification

During the early fall period, Canada Geese and Black Duck fly into Haley Lake from the surrounding salt water harbours and estuaries.

The principal flight times into the lake are during rising tides when feeding sites in the harbour become inundated. Most of their time is spent preening and loafing on the rock ledges in the lake and on the granite boulders along the shores. The lake also affords the waterfowl fresh water and gravel. Haley Lake has for a number of years been one of the principal fresh water lakes in the area to be frequented by fall flights of geese and Black Duck. Previous records indicate that the number present at any one time does not normally exceed 1,000, however, it is probable that many more occur over a period of time.

Wilkins Lake, close by and similar to Haley, was until the last two years also frequented regularly by similar numbers of geese; however, that flight has not occurred for the past two years. Robertson Lake and one or two other lakes in the area are frequented by geese, but not regularly and normally only by small numbers.

For the past several years the regular fall waterfowl flight, mainly Canada geese, into Haley Lake has terminated with the opening of the waterfowl season (around October 15). If the flight has continued beyond that time it has been diminished, irregular and often at night.

Haley Lake has increasingly become a favourite opening day hunting site for many local hunters. On opening day of this past season some 75 men hunted at Haley Lake. The majority of hunters shoot from the woodland ridges to the east and west of the lake as the geese fly to the lake. Despite that shooting the geese almost always continue on into the lake. A much smaller number of hunters, 12 this past season, set up on the ledge in the middle of the lake and shoot at the geese as they fly or swim to their decoys. It appears that that shooting and hunting activity (shooting

at almost every flock, chasing crippled geese with row boats) from the ledges in the lake quickly terminates the normal goose flight into Haley Lake.

From a biological standpoint, termination of the fall goose flight into Haley Lake does not appear to be a critical factor. Geese that overwinter in the Port Joli area (in recent years the normal overwintering population has been 3,000 to 10,000) go without fresh water habitat following freeze-up (about a four month period). Their occupation of fresh water habitat during the early fall period appears to be one of preference and/or tradition. However, I believe that is adequate justification for taking measures to provide such habitat to geese for the fall period. Seemingly secondary habitat components are often more important than is obvious and certainly our goal in wildlife management must be to meet more than basic habitat requirements.

Many Haley Lake hunters are concerned over the lack of hunting opportunity following opening day. It appears that a minority of hunters, those shooting from the lake ledges, are removing the hunting opportunity for the majority, those shooting from the woodland ridges. I accompany this proposal with a letter from Mr. J.D. Swim, dated September 10, 1973 to Dr. John Tener, then Director General of the Canadian Wildlife Service. In his letter, Mr. Swim, a long time hunter at Haley Lake, expressed the desire held by regular Haley Lake hunters as well as people owning land bordering the lake to establish Haley Lake as a Migratory Bird Sanctuary. The opinion expressed by Mr. Swim and the people he represented was that geese would continue their normal flight to the lake if shooting from the lake was prohibited and, therefore, afford a longer hunting period from the woodland ridges.

On the opening day of this past waterfowl season I observed hunting activity at Haley Lake. Geese flew to the lake from the harbours in the normal manner in small flocks of 5 to 25. Most were shot at as they passed over the woodland ridges, but almost every flock continued on into the lake. Entering the lake they either dropped into hunters' decoys around the ledges and were shot at while in the water or they alighted on open water and swam to the decoys. That hunting activity in the lake resulted in a state of considerable turmoil among the geese. Cripples flopping about the lake were pursued with row boats, birds in family groups, of which some were shot, circled the lake while honking loudly, and flocks disturbed by all those various activities also circled the lake, eventually joining with other incoming flocks. Those flocks either dropped into the lake and were shot at or they flew back to the salt water. Shooting continued for more than one and one-half hours and in that manner every goose that was not shot was driven from the lake back to the harbours.

I had conversations with several hunters in the area and everyone expressed a desire to prohibit hunting from the lake ledges at Haley Lake. Although I did not talk with any of the ledge hunters, I was informed indirectly that most were in agreement with closing the lake to hunting and only hunted there now because they knew if they did not that someone else would.

On the basis of my observations of the opening day hunting activity at Haley Lake, which I believe was normal for recent years, I support the contention of Mr. Swim and several Haley Lake hunters that prohibiting hunting in Haley Lake would result in a longer hunting period and a more equal distribution of the harvest. The harvest on opening day of this past

season was about 60 geese. About half were shot by the 12 hunters on the lake ledges, the remainder by approximately 60 hunters shooting from the woodland ridges.

Therefore, as a measure to provide Canada geese in the Port Joli area, Nova Scotia with fresh water lake habitat during the entire fall period prior to freeze-up and to afford hunters of the area more hunting opportunity, and a more equal distribution of the harvest I propose, in concurrence with the Nova Scotia Department of Lands and Forests, Wildlife Division (accompanying letter dated January 12, 1976) that Haley Lake, Shelburne County, Nova Scotia, latitude 43°50', longitude 65°00'20" be zoned under Schedule A of the Migratory Birds Regulations with no open season for waterfowl hunting. The Haley Lake management zone to include all the water surface of the lake, all rock outcroppings, shoals, ledges, and rocks in the lake as well as an upland border around the entire lake perimeter extending from the lake shore 100 feet inland.