



CANADIAN WILDLIFE SERVICE



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Progress Notes contain *interim* data and conclusions and are presented as a service to other wildlife biologists and agencies. The notes will appear in summary volumes from time to time.

### WATERFOWL HARVEST AND HUNTER ACTIVITY IN CANADA DURING THE 1967-68 HUNTING SEASON

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#### INTRODUCTION

This report presents results of a migratory game bird harvest survey conducted in 1967-68 in all provinces of Canada by the Canadian Wildlife Service. Similar surveys will be conducted annually. There are no prior Canadian data which are strictly comparable.

The broad objective of the Canada migratory game bird hunting permit and survey system is to obtain information on the hunting of migratory birds that will help us to manage them more effectively. Our more detailed objectives are:

1. To obtain data annually on the harvest of migratory birds in each province. The species groups identifiable by most hunters are ducks (excluding sea ducks), geese (including brant), coots (mud hens), sea ducks, snipe, woodcock, mourning doves, band-tailed pigeons, gallinules, and cranes. We are stressing the annual determination of a number of statistics important to waterfowl managers:

- (a) the estimated total harvest of birds,
- (b) the seasonal bag of ducks per hunter,
- (c) the average daily bag of ducks per hunter, and
- (d) the average number of days spent hunting by a hunter and the total man-days of recreation provided by the resource.

2. To obtain data pertaining to a variety of subjects from time to time as required. These data are obtained from answers to questions which appear on one year's questionnaire only. The 1967-68 survey contained questions which produced information on:

- (a) distances travelled by hunters, and
- (b) consumption of shot shells in relation to number of birds harvested.

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The design of the survey and the format of this report are provisional.

The accuracy of the results presented is subject to future assessment. To make such an assessment possible, we provide a brief description of methods employed and present as much of the sample data as possible with minimum extrapolation.

Table formats are the same for all provinces, even though there are differences in the species hunted. Such standardization speeds up production of the report and also serves as a reminder of human fallibility. Reports of a few mourning doves, band-tailed pigeons, or cranes taken where such species are either not present or not legal game may be considered as misidentifications, use of incorrect local names, or simple errors. There may be similar but less obvious inaccuracies throughout the report.

This report will not discuss the data in terms of waterfowl management, but rather just presents the data and an explanation of how they were obtained.

#### TERMINOLOGY

Potential hunter: a purchaser of a Canada migratory game bird hunting permit. We do not differentiate between potential adult hunters and junior hunters as is done in the United States surveys, because in Canada all hunters except Indians, Eskimos, and persons hunting in the Northwest Territories and Yukon Territory must possess permits. Since our permits are of no philatelic interest we assume all purchasers to be potential hunters.

Active hunter: a person who possesses a permit and who hunted migratory birds on one or more days.

Successful hunter: an active hunter who killed and retrieved one or more birds. An active hunter who hunted for one day and killed and retrieved one goose and one snipe would be tallied as a successful hunter for geese, for waterfowl, and for snipe, but he would be classed as an active hunter for ducks. In such cases it is not possible to determine whether his primary interest was to be a "duck hunter" on that day. He may have hoped to shoot woodcock and taken opportunities to bag a goose and snipe. Tables 1 and 2 illustrate this difficulty of classification.

Resident: this is a word whose intended meaning is frequently ambiguous. We have attempted to define it wherever it appears.

#### METHODS

Sales records of permits sold in 1966-67 were used as a statistical universe. Stratification was by province of residence. The samples

were selected systematically from the sales records after sorting by permit number. Addresses categorized as unusable by the computer were replaced. A 10 per cent sample was decided upon arbitrarily for all of Canada. That sample was then allocated to strata (provinces) by use of a crude procedure based on the size of the provincial universe, and estimates of size and variability of bags of ducks in previous years, when such estimates were available. In other words, if a large number of permits had been sold in a given area, a sample smaller than 10 per cent was adequate. Samples larger than 10 per cent were necessary for reliable results in areas where permit sales were low.

Hunters selected for the sample were contacted in August, when an information mailing was made to all hunters of record from the previous year. Those in the sample received a "contact" card on which to record their kill. Questionnaires were mailed at the end of the duck season (excluding sea ducks). One follow-up was sent.

Returned questionnaires were scrutinized, and the data transferred to magnetic tape. All summaries and analyses were prepared in the form of computer listings.

#### RESULTS

Table 1 - Numbers of successful hunters, and birds killed and retrieved, by province.

Sample sizes and extrapolation factors were derived for each province, based on the total 1967-68 permit sales in that province (potential hunters) and all usable responses received from those permittees (response by potential hunters).

The extrapolation factors may be used to expand an estimated harvest figure from the sample to produce an estimated harvest for the province. That was done to calculate the estimates of the total provincial harvests which are presented in the last column of the table.

Non-response bias has an unknown effect on the estimates. Successful hunters account for all of the birds shot and retrieved. However, experience indicates that a higher proportion of successful than unsuccessful hunters responds to surveys. That proportion is unknown.

Persons who bought a permit in 1967-68 but not in 1966-67 were not sampled. That group of hunters was much larger than expected (about 30 per cent of 1967-68 permit purchasers). It contains "intermittent" hunters and young people hunting for the first time. As a whole, it represents a segment of the hunting population which is probably relatively unsuccessful.

The harvest of sea ducks is probably underestimated by the survey. Questionnaires were mailed at the end of the regular duck season, and cut-off dates for processing (for this report) occurred before the end of the sea duck season. The effect has been to reduce our estimates of the harvest of sea ducks.

The number of inactive hunters can be calculated by subtracting the number of active hunters (Table 2) from the number of potential hunters (Table 1). The numbers of inactive hunters in the samples expressed as percentages of potential hunters in the sample are as follows: Newfoundland 36 per cent; Nova Scotia 21 per cent; British Columbia 21 per cent; New Brunswick 20 per cent; Quebec 20 per cent; Ontario 19 per cent; Prince Edward Island 16 per cent; Alberta 14 per cent; Saskatchewan 14 per cent; Manitoba 12 per cent.

That sequence of provinces supports the hypothesis that the group of hunters we classify as inactive contains a proportion of persons, larger in maritime provinces, who purchased permits with the intent of hunting sea ducks late in the season.

As a result of those factors, the estimates of total harvest of all species groups except sea ducks are probably too high by an unknown amount. On the other hand, they are the best estimates presently available. Changes in the statistics given in this table from year to year should indicate trends, if they are treated as indices rather than absolute values.

Table 2 - Season bag of ducks (excluding sea ducks) reported by active hunters, by province.

The number of active but unsuccessful hunters in the sample is shown. We believe that group to be proportionately smaller in the sample than it actually is among all active hunters. A few hunters report very high season bags. It is difficult to interpret such responses. The entire distribution is not a good fit to a statistically defined normal distribution.

We present the variance and statistical limits of the mean season bag of ducks with some trepidation, because statistical measures of accuracy are purely arithmetic. They are calculated from the sample data on the assumption that those data are absolutely accurate and constitute a perfectly representative sample.

Table 3 - Distance from place of residence to location where most hunting was done for ducks and geese by residents of the province.

These data are responses to a question which will not be repeated on the 1968-69 survey questionnaire. The results are interesting in themselves, and also provide some indication of the type of sub-stratification which could be used to improve the sampling design of the survey.

Table 4 - Man-days of recreation and harvest by successful hunters of waterfowl, by province.

These data were derived from those successful hunters of waterfowl who responded to the questionnaire. These statistics are indices of hunter success and also provide a measure of the amount of recreation provided by the resource. These statistics will become increasingly valuable as they are accumulated and can be compared for a series of years.

Table 5 - Consumption of shells by active hunters in relation to birds killed and retrieved.

These data were derived from active hunters who responded to the survey. The non-response bias would tend to weight the figures in favour of successful hunters who do more hunting and probably use fewer shells per bird, but more ammunition in a season, than less successful hunters. On the other hand, it is usually believed that a "prestige" bias also exists. The tendency is for the hunter to exaggerate his kill and to minimize the amount of ammunition used in achieving it. Those biases would tend to cancel one another in a calculation of the total number of shells used. However, the figures given for "shells per bird" are probably minimum estimates.

Table 6 - Distribution of sample.

In order to obtain fairly reliable estimates for provinces with smaller numbers of potential hunters, larger percentage samples were selected for those provinces. That was done for the 1967-68 survey as is shown in the table. However, much more information is required to perfect our sampling technique. The first year's results will contribute some of that information. Results following substratification of provinces next year will also assist.

#### FUTURE DEVELOPMENT OF THE SURVEY

In 1968-69 we will again base our sample on the universe provided by the previous year's purchasers. However, we are working towards a sampling system which will employ the current list of permit purchasers as a statistical universe, thereby avoiding several sources of bias in the sample.

The technique of substratification within provinces employed for the summary of 1967-68 permit sales (Progress Note No. 4 of 1968) will be employed in the 1968-69 harvest survey.

The survey is now under study with the objective of improving the theory and practice of the sampling procedure.

EXTENT OF THIS REPORT

This report presents some of the survey results in full and some in the form of summaries. One section of the questionnaire, the so-called "duck calendar", produced results which are far less complete than the rest of the questionnaire. Those results will not be published unless further study and analyses assure us that we can place confidence in them.

Previous information on the Canada migratory game bird hunting permit and related surveys: Progress Notes No. 2 (1967), No. 4 (1968).

TABLE 1 - NEWFOUNDLAND

Numbers of successful hunters, and birds killed and retrieved (estimated totals are not adjusted)

Potential hunters (1967-68 permit sales records received) - 14,863  
 Sample size (response by potential hunters) - 882 (5.934%)  
 Extrapolation factor -  $14,863/882 = 16.85$

SPECIES GROUP	SUCCESSFUL HUNTERS		BIRDS SHOT AND RETRIEVED		
	Number Reporting	Estimated Total	BIRDS SHOT AND RETRIEVED SAMPLE Birds Reported	Birds per Successful Hunter	Estimated Total Harvest of Birds
Ducks (excluding Sea Ducks)	352	9,310	3,006	8.54	50,655
Geese (including Brant)	79	2,090	237	3.00	3,994
Coots*	12	317	39	3.25	657
Sea Ducks	108	2,857	1,140	10.56	19,211
Snipe	132	3,491	584	4.42	9,841
Woodcock*	8	212	50	6.25	843
Mourning Doves*	5	132	17	3.40	286
Band-tailed Pigeons*	11	291	113	10.27	1,904
Gallinules*	4	106	43	10.75	725
Cranes*	2	53	10	5.00	169

\* No open seasons - these reports probably represent misidentifications.

TABLE 1 - PRINCE EDWARD ISLAND

Numbers of successful hunters, and birds killed and retrieved (estimated totals are not adjusted)

Potential hunters (1967-68 permit sales records received) - 3,094

Sample size (response by potential hunters) - 240 (7.757%)

Extrapolation factor -  $3,094/240 = 12.89$

SPECIES GROUP	SUCCESSFUL HUNTERS		BIRDS SHOT AND RETRIEVED		
	Number Reporting	Estimated Total	BIRDS SHOT AND RETRIEVED SAMPLE Birds Reported	Birds per Successful Hunter	Estimated Total Harvest of Birds
Ducks (excluding Sea Ducks)	152	2,329	1,669	10.98	21,516
Geese (including Brant)	70	1,072	317	4.53	4,087
Coots*	6	92	13	2.17	168
Sea Ducks	30	460	121	4.03	1,560
Snipe	18	276	108	6.00	1,392
Woodcock	4	61	39	9.75	503
Mourning Doves*	-	-	-	-	-
Band-tailed Pigeons*	2	31	4	2.00	52
Gallinules*	-	-	-	-	-
Cranes*	1	15	1	1.00	13

\* No open seasons - these reports probably represent misidentifications.

TABLE 1 - NOVA SCOTIA

Numbers of successful hunters, and birds killed and retrieved (estimated totals are not adjusted)

Potential hunters (1967-68 permit sales records received) - 7,883

Sample size (response by potential hunters) - 729 (9.248%)

Extrapolation factor -  $7,883/729 = 10.81$

SPECIES GROUP	SUCCESSFUL HUNTERS		BIRDS SHOT AND RETRIEVED		
	Number Reporting	Estimated Total	BIRDS SHOT AND RETRIEVED SAMPLE Birds Reported	Birds per Successful Hunter	Estimated Total Harvest of Birds
Ducks (excluding Sea Ducks)	420	5,737	4,868	11.59	52,640
Geese (including Brant)	99	1,352	431	4.35	4,661
Coots*	107	1,462	1,098	10.26	11,873
Sea Ducks	180	2,459	1,612	8.96	17,431
Snipe	52	710	369	7.10	3,990
Woodcock	56	765	460	8.21	4,974
Mourning Doves*	4	55	13	3.25	141
Band-tailed Pigeons*	-	-	-	-	-
Gallinules*	-	-	-	-	-
Cranes*	2	27	2	1.00	22

\* No open seasons - these reports probably represent misidentifications.

TABLE 1 - NEW BRUNSWICK

Numbers of successful hunters, and birds killed and retrieved (estimated totals are not adjusted)

Potential hunters (1967-68 permit sales records received) - 7,739  
 Sample size (response by potential hunters) - 801 (10.350%)  
 Extrapolation factor - 7,739/801 = 9.66

SPECIES GROUP	SUCCESSFUL HUNTERS		BIRDS SHOT AND RETRIEVED		
	Number Reporting	Estimated Total	SAMPLE Birds Reported	Birds per Successful Hunter	Estimated Total Harvest of Birds
Ducks (excluding Sea Ducks)	512	6,221	4,590	8.96	44,347
Geese (including Brant)	85	1,033	220	2.59	2,126
Coots*	17	207	104	6.12	1,005
Sea Ducks	66	802	366	5.55	3,536
Snipe	32	389	213	6.66	2,058
Woodcock	66	802	525	7.95	5,072
Mourning Doves*	-	-	-	-	-
Band-tailed Pigeons*	-	-	-	-	-
Gallinules*	-	-	-	-	-
Cranes*	4	49	8	2.00	77

\* No open seasons - these reports probably represent misidentifications.

TABLE 1 - QUEBEC

Numbers of successful hunters, and birds killed and retrieved (estimated totals are not adjusted)

Potential hunters (1967-68 permit sales records received) - 32,491  
 Sample size (response by potential hunters) - 1,504 (4.629%)  
 Extrapolation factor - 32,491/1,504 = 21.60

SPECIES GROUP	SUCCESSFUL HUNTERS		BIRDS SHOT AND RETRIEVED		
	Number Reporting	Estimated Total	SAMPLE Birds Reported	Birds per Successful Hunter	Estimated Total Harvest of Birds
Ducks (excluding Sea Ducks)	982	26,367	14,314	14.58	309,226 <sup>Bl.</sup> <sub>78,000</sub>
Geese (including Brant)	231	6,202	1,410	6.10	30,460
Coots	115	3,088	401	3.49	8,663
Sea Ducks	99	2,658	756	7.64	16,332
Snipe	174	4,672	1,124	6.46	24,282
Woodcock	125	3,356	916	7.33	19,788
Mourning Doves*	18	483	56	3.11	1,210
Band-tailed Pigeons*	18	483	82	4.56	1,771
Gallinules	12	322	26	2.17	562
Cranes*	9	242	20	2.22	432

\* No open seasons - these reports probably represent misidentifications.

\*\* Straight extrapolation from % recorded in species composition survey

Total kill of black ducks in Canada: 300,000  
 it corresponds to 40% of estimated

TABLE 1 - ONTARIO

Numbers of successful hunters, and birds killed and retrieved (estimated totals are not adjusted)

Potential hunters (1967-68 permit sales records received) - 146,493  
 Sample size (response by potential hunters) - 3,646 (2.489%)  
 Extrapolation factor -  $146,493 / 3,646 = 40.18$

SPECIES GROUP	SUCCESSFUL HUNTERS		BIRDS SHOT AND RETRIEVED		
	Number Reporting	Estimated Total	Birds Reported	Birds per Successful Hunter	Estimated Total Harvest of Birds
Ducks (excluding Sea Ducks)	2,293	113,526	25,787	11.25	1,036,098
Geese (including Brant)	318	15,744	1,107	3.48	44,478
Coots	217	10,744	758	3.49	30,456
Sea Ducks	76	3,763	265	3.49	10,647
Snipe	115	5,694	451	3.92	18,121
Woodcock	310	15,348	1,412	4.55	56,733
Mourning Doves*	30	1,485	143	4.77	5,746
Band-tailed Pigeons*	24	1,188	115	4.79	4,621
Gallinules	8	396	36	4.50	1,446
Cranes*	6	297	12	2.00	482

\* No open seasons - these reports probably represent misidentifications.

TABLE 1 - MANITOBA

Numbers of successful hunters, and birds killed and retrieved (estimated totals are not adjusted)

Potential hunters (1967-68 permit sales records received) - 35,620  
 Sample size (response by potential hunters) - 1,906 (5.351%)  
 Extrapolation factor -  $35,620 / 1,906 = 18.69$

SPECIES GROUP	SUCCESSFUL HUNTERS		BIRDS SHOT AND RETRIEVED		
	Number Reporting	Estimated Total	Birds Reported	Birds per Successful Hunter	Estimated Total Harvest of Birds
Ducks (excluding Sea Ducks)	1,445	30,663	19,302	13.36	360,723
Geese (including Brant)	534	11,331	1,782	3.34	33,303
Coots	114	2,419	360	3.16	6,728
Sea Ducks	7	149	15	2.14	280
Snipe	67	1,422	221	3.30	4,130
Woodcock*	5	106	6	1.20	112
Mourning Doves*	6	127	20	3.33	374
Band-tailed Pigeons*	4	85	5	1.25	93
Gallinules*	1	21	30	30.00	561
Cranes	5	106	14	2.80	262

\* No open seasons - these reports probably represent misidentifications.

TABLE 1 - SASKATCHEWAN

Numbers of successful hunters, and birds killed and retrieved (estimated totals are not adjusted)

Potential hunters (1967-68 permit sales records received) - 44,651  
 Sample size (response by potential hunters) - 2,178 (4.878%)  
 Extrapolation factor -  $44,651/2,178 = 20.50$

SPECIES GROUP	SUCCESSFUL HUNTERS		BIRDS SHOT AND RETRIEVED		
	Number Reporting	Estimated Total	Birds Reported	Birds per Successful Hunter	Estimated Total Harvest of Birds
Ducks (excluding Sea Ducks)	1,640	39,278	23,778	14.50	487,471
Geese (including Brant)	671	16,070	3,307	4.93	67,797
Coots	87	2,084	385	4.43	7,893
Sea Ducks	4	96	17	4.25	349
Snipe	31	742	99	3.19	2,030
Woodcock*	4	96	25	6.25	513
Mourning Doves*	4	96	5	1.25	103
Band-tailed Pigeons*	9	216	53	5.89	1,087
Gallinules*	1	24	2	2.00	41
Cranes	21	503	51	2.43	1,046

\* No open seasons - these reports probably represent misidentifications.

TABLE 1 - ALBERTA

Numbers of successful hunters, and birds killed and retrieved (estimated totals are not adjusted)

Potential hunters (1967-68 permit sales records received) - 55,892  
 Sample size (response by potential hunters) - 2,207 (3.949%)  
 Extrapolation factor -  $55,892/2,207 = 25.32$

SPECIES GROUP	SUCCESSFUL HUNTERS		BIRDS SHOT AND RETRIEVED		
	Number Reporting	Estimated Total	Birds Reported	Birds per Successful Hunter	Estimated Total Harvest of Birds
Ducks (excluding Sea Ducks)	1,683	49,800	28,426	16.89	719,885
Geese (including Brant)	601	17,784	2,364	3.93	59,868
Coots	75	2,219	275	3.67	6,964
Sea Ducks	4	118	19	4.75	481
Snipe	56	1,657	238	4.25	6,027
Woodcock*	6	178	67	11.17	1,697
Mourning Doves*	5	148	14	2.80	355
Band-tailed Pigeons*	14	414	72	5.14	1,823
Gallinules*	2	59	26	13.00	658
Cranes*	5	148	39	7.80	988

\* No open seasons - these reports probably represent misidentifications.



TABLE 1 - BRITISH COLUMBIA

Numbers of successful hunters, and birds killed and retrieved (estimated totals are not adjusted)

Potential hunters (1967-68 permit sales records received - 33,195  
 Sample size (response by potential hunters) - 1,467 (4.419%)  
 Extrapolation factor - 33,195/1,467 = 22.63

SPECIES GROUP	SUCCESSFUL HUNTERS		BIRDS SHOT AND RETRIEVED		
	Number Reporting	Estimated Total	SAMPLE		Estimated Total Harvest of Birds
			Birds Reported	Birds per Successful Hunter	
Ducks (excluding Sea Ducks)	1,017	29,178	16,643	16.36	376,595
Geese (including Brant)	202	5,795	607	3.00	13,735
Coots	49	1,406	176	3.59	3,982
Sea Ducks	40	1,148	190	4.75	4,299
Snipe	80	2,295	522	6.53	11,812
Woodcock*	3	86	3	1.00	68
Mourning Doves	17	488	94	5.53	2,127
Band-tailed Pigeons	73	2,094	646	8.85	14,618
Gallinules*	1	29	25	25.00	566
Cranes*	1	29	5	5.00	113

\* No open seasons - these reports probably represent misidentifications.

TABLE 2 - NEWFOUNDLAND

Season bag of ducks (excluding sea ducks) reported by active hunters (persons who hunted one or more days)

Season Bag	Hunters Reporting	Total Ducks	Season Bag	Hunters Reporting	Total Ducks
0	210	0	19	1	19
1	44	44	20	5	100
2	59	118	21	2	42
3	33	99	22	1	22
4	31	124	23	3	69
5	24	120	24	1	24
6	21	126	25	2	50
7	14	98	28	3	84
8	19	152	29	1	29
9	12	108	30	2	60
10	24	240	35	2	70
11	4	44	36	1	36
12	8	96	41	1	41
13	6	78	45	1	45
14	6	84	46	1	46
15	8	120	55	1	55
16	6	96	60	1	60
17	2	34	73	1	73
			300		300

Variance of mean

.390

Total

562

3,006

95% LIMITS:

Lower Upper

4.13 6.57

Mean

5.35

TABLE 2 - PRINCE EDWARD ISLAND

Season bag of ducks (excluding sea ducks) reported by active hunters (persons who hunted one or more days)

Season Bag	Hunters Reporting	Total Ducks	Season Bag	Hunters Reporting	Total Ducks
0	50	0	20	2	40
1	13	13	21	1	21
2	21	42	22	1	22
3	18	54	23	1	23
4	14	56	24	2	48
5	11	55	25	2	50
6	9	54	26	1	26
7	8	56	28	1	28
8	5	40	29	1	29
9	2	18	30	1	30
10	4	40	31	1	31
11	1	11	35	1	35
12	6	72	36	1	36
13	3	39	37	1	37
14	2	28	48	1	48
15	6	90	49	1	49
16	1	16	53	2	106
17	1	17	54	1	54
18	2	36	100	2	200
19	1	19			
Variance of mean		.968	Total	202	1,669
95% LIMITS: Lower		6.33	Mean		8.26
Upper		10.19			

TABLE 2 - NOVA SCOTIA

Season bag of ducks (excluding sea ducks) reported by active hunters (persons who hunted one or more days)

Season Bag	Hunters Reporting	Total Ducks	Season Bag	Hunters Reporting	Total Ducks
0	157	0	24	9	216
1	42	42	25	6	150
2	46	92	26	3	78
3	27	81	27	4	108
4	30	120	28	2	56
5	17	85	29	1	29
6	31	186	30	3	90
7	23	161	31	1	31
8	16	128	32	3	96
9	10	90	33	1	33
10	15	150	34	3	102
11	9	99	35	2	70
12	21	252	38	3	114
13	7	91	40	2	80
14	12	168	41	2	82
15	11	165	42	1	42
16	4	64	44	2	88
17	6	102	50	1	50
18	9	162	52	1	52
19	7	133	57	1	57
20	8	160	60	2	120
21	4	84	80	1	80
22	3	66	110	1	110
23	6	138	115	1	115
Variance of mean		.264	Total	577	4,868
95% LIMITS: Lower		7.43	Mean		8.44
Upper		9.45			

TABLE 2 - NEW BRUNSWICK

Season bag of ducks (excluding sea ducks) reported by active hunters (persons who hunted one or more days)

Season Bag	Hunters Reporting	Total Ducks	Season Bag	Hunters Reporting	Total Ducks
0	125	0	23	8	184
1	48	48	24	4	96
2	64	128	25	5	125
3	48	144	27	1	27
4	55	220	28	1	28
5	39	195	30	2	60
6	39	234	31	1	31
7	28	196	32	1	32
8	26	208	34	1	34
9	17	153	35	3	105
10	23	230	37	1	37
11	8	88	41	1	41
12	20	240	45	1	45
13	4	52	46	1	46
14	4	56	47	2	94
15	13	195	48	2	96
16	9	144	55	2	110
17	1	17	58	1	58
18	6	108	62	1	62
19	3	57	80	1	80
20	8	160	85	1	85
21	4	84	91	1	91
22	3	66			
Variance of mean		.170	Total	637	4,590
95% LIMITS:	Lower	6.40	Mean		7.21
	Upper	8.02			

TABLE 2 - QUEBEC

Season bag of ducks (excluding sea ducks) reported by active hunters (persons who hunted one or more days)

Season Bag	Hunters Reporting	Total Ducks	Season Bag	Hunters Reporting	Total Ducks
0	228	0	41	1	41
1	80	80	42	2	84
2	91	182	43	1	43
3	70	210	44	4	176
4	67	268	45	1	45
5	72	360	47	1	47
6	58	348	48	3	144
7	35	245	49	3	147
8	44	352	50	1	50
9	21	189	51	1	51
10	47	470	52	3	156
11	26	286	53	2	106
12	31	372	54	2	108
13	10	130	55	1	55
14	21	294	56	3	168
15	31	465	57	1	57
16	19	304	58	2	116
17	14	238	60	3	180
18	15	270	63	1	63
19	8	152	64	1	64
20	15	300	66	2	132
21	11	231	67	1	67
22	5	110	70	1	70
23	13	299	72	2	144
24	9	216	75	3	225
25	13	325	76	1	76
26	8	208	80	1	80
27	5	135	82	1	82
28	2	56	86	1	86
29	7	203	89	1	89
30	12	360	93	3	279
31	8	248	103	1	103
32	2	64	108	1	108
33	7	231	112	2	224
34	4	136	113	1	113
35	9	315	122	1	122
36	6	216	129	1	129
37	7	259	142	1	142
38	4	152	149	1	149
39	6	234	158	1	158
40	4	160	162	1	162
Variance of mean		.278	Total	1,210	14,314
95% LIMITS:	Lower	10.80	Mean		11.83
	Upper	12.86			

TABLE 2 - ONTARIO

Season bag of ducks (excluding sea ducks) reported by active hunters (persons who hunted one or more days)

Season Bag	Hunters Reporting	Total Ducks	Season Bag	Hunters Reporting	Total Ducks
0	666	0	43	5	215
1	263	263	44	5	220
2	232	464	45	8	360
3	218	654	46	1	46
4	189	756	47	2	94
5	179	895	48	4	192
6	118	708	49	4	196
7	81	567	50	10	500
8	106	848	51	1	51
9	77	693	52	3	159
10	99	990	53	3	165
11	50	550	54	1	56
12	52	624	55	1	56
13	29	377	56	1	57
14	47	658	57	3	174
15	56	840	58	1	59
16	32	512	59	5	300
17	28	476	60	2	122
18	28	504	61	1	62
19	20	380	62	1	63
20	50	1,000	63	1	64
21	22	462	64	1	64
22	20	440	65	1	65
23	19	437	66	1	67
24	8	192	67	1	67
25	19	475	68	1	68
26	11	286	69	1	69
27	15	405	70	2	140
28	11	308	71	2	150
29	13	377	72	2	152
30	22	660	73	1	79
31	10	310	74	1	79
32	7	224	75	3	240
33	7	231	76	1	83
34	8	272	77	1	83
35	13	455	78	2	170
36	8	288	79	1	170
37	9	333	80	1	88
38	2	76	81	1	88
39	4	156	82	2	180
40	14	560	83	1	180
41	2	82	84	1	91
42	3	126	85	1	91
			86	1	95
			87	2	200
			88	1	200
			89	1	101
			90	1	101
			91	1	115
			92	1	115
			93	1	127
			94	1	127
			95	1	149
			96	1	149
			97	1	200
			98	1	200
			99		
			100		
Variance of mean		.064	Total	2,959	25,787
95% LIMITS:			Mean		8.71
	Lower	8.22			
	Upper	9.20			

TABLE 2 - MANITOBA

Season bag of ducks (excluding sea ducks) reported by active hunters (persons who hunted one or more days)

Season Bag	Hunters Reporting	Total Ducks	Season Bag	Hunters Reporting	Total Ducks
0	234	0	36	9	324
1	63	63	37	6	222
2	120	240	38	7	266
3	97	291	39	4	156
4	120	480	40	8	320
5	64	320	41	3	123
6	103	618	42	7	294
7	58	406	43	5	215
8	83	664	44	3	132
9	41	369	45	3	135
10	65	650	46	4	184
11	28	308	47	2	94
12	61	732	48	5	240
13	20	260	49	4	196
14	57	798	50	2	100
15	43	645	51	1	51
16	52	832	52	1	52
17	15	255	53	1	53
18	22	396	54	2	108
19	6	114	55	4	220
20	47	940	56	3	171
21	16	336	57	1	58
22	17	374	58	4	240
23	16	368	59	1	64
24	13	312	60	2	130
25	27	675	61	1	66
26	12	312	62	1	72
27	3	81	63	1	83
28	9	252	64	1	100
29	6	174	65	1	102
30	23	690	66	1	107
31	5	155	67	1	116
32	11	352	68	1	118
33	5	165	69	1	120
34	9	306	70	1	127
35	6	210	71		
Variance of mean		.112	Total	1,679	19,302
95% LIMITS:			Mean		11.50
	Lower	10.84			
	Upper	12.16			

TABLE 2 - SASKATCHEWAN

Season bag of ducks (excluding sea ducks) reported by active hunters (persons who hunted one or more days)

Season Bag	Hunters Reporting	Total Ducks	Season Bag	Hunters Reporting	Total Ducks
0	227	0	37	5	185
1	48	48	38	5	190
2	91	182	39	1	39
3	82	246	40	13	520
4	97	388	41	1	41
5	87	435	42	1	42
6	91	546	43	3	129
7	58	406	44	2	88
8	85	680	45	2	90
9	58	522	46	5	230
10	122	1,220	47	3	141
11	32	352	48	4	192
12	87	1,044	50	7	350
13	33	429	51	1	51
14	50	700	52	2	104
15	95	1,425	54	4	216
16	70	1,120	55	2	110
17	18	306	56	3	168
18	31	558	60	2	120
19	17	323	62	2	124
20	70	1,400	63	4	252
21	16	336	64	1	64
22	19	418	65	1	65
23	12	276	67	2	134
24	13	312	68	3	204
25	32	800	75	2	150
26	15	390	76	1	76
27	9	243	77	1	77
28	18	504	78	1	78
29	9	261	81	1	81
30	34	1,020	91	1	91
31	7	217	100	2	200
32	12	384	114	1	114
33	1	33	116	1	116
34	5	170	131	1	131
35	14	490	150	1	150
36	6	216	170	1	170
Variance of mean		.108	Total	1,864	23,683
95% LIMITS:	Lower	12.07	Mean		12.71
	Upper	13.35			

TABLE 2 - ALBERTA

Season bag of ducks (excluding sea ducks) reported by active hunters (persons who hunted one or more days)

Season Bag	Hunters Reporting	Total Ducks	Season Bag	Hunters Reporting	Total Ducks
0	207	0	45	7	315
1	68	68	46	2	92
2	84	168	47	4	188
3	90	270	48	5	240
4	93	372	49	1	49
5	90	450	50	8	400
6	86	516	51	3	153
7	56	392	52	1	52
8	79	632	53	5	265
9	41	369	54	2	108
10	92	920	55	3	165
11	38	418	57	2	114
12	77	924	58	4	232
13	26	338	60	9	540
14	50	700	61	1	61
15	72	1,080	65	5	325
16	43	688	66	1	66
17	29	493	67	1	67
18	36	648	68	1	68
19	19	361	69	1	69
20	79	1,580	70	4	280
21	21	441	72	3	216
22	20	440	73	1	73
23	19	437	74	2	148
24	19	456	75	1	75
25	32	800	78	1	78
26	9	234	79	1	79
27	17	459	80	5	400
28	21	588	83	1	83
29	13	377	86	3	258
30	37	1,110	91	1	91
31	13	403	92	1	92
32	16	512	93	1	93
33	8	264	95	2	190
34	7	238	100	2	200
35	16	560	105	1	105
36	8	288	106	1	106
37	4	148	108	1	108
38	12	456	116	1	116
39	2	78	119	1	119
40	16	640	120	1	120
41	3	123	135	1	135
42	7	294	153	1	153
43	6	258	155	1	155
44	3	132	245	1	245
Variance of mean		.171	Total	1,889	28,410
95% LIMITS:	Lower	14.23	Mean		15.04
	Upper	15.85			

TABLE 2 - BRITISH COLUMBIA

Season bag of ducks (excluding sea ducks) reported by active hunters (persons who hunted one or more days)

Season Bag	Hunters Reporting	Total Ducks	Season Bag	Hunters Reporting	Total Ducks
0	140	0	38	3	114
1	59	59	39	1	39
2	54	108	40	19	760
3	54	162	41	5	205
4	63	252	42	4	168
5	53	265	43	2	86
6	57	342	44	1	44
7	37	259	45	5	225
8	55	440	46	1	46
9	28	252	48	7	336
10	40	400	49	2	98
11	25	275	50	4	200
12	51	612	53	2	106
13	12	156	54	1	54
14	25	350	57	1	57
15	28	420	58	2	116
16	21	336	59	2	118
17	11	187	60	4	240
18	17	306	62	3	186
19	10	190	63	1	63
20	33	660	64	4	256
21	16	336	65	1	65
22	15	330	66	3	198
23	12	276	67	1	67
24	13	312	70	1	70
25	30	750	75	1	75
26	9	234	78	1	78
27	4	108	80	1	80
28	10	280	83	2	166
29	7	203	85	1	85
30	26	780	86	1	86
31	11	341	92	1	92
32	4	128	98	1	98
33	7	231	100	2	200
34	6	204	102	1	102
35	7	245	107	1	107
36	6	216	111	1	111
37	5	185	128	2	256
Variance of mean		.245	Total	1,157	16,643
95% LIMITS: Lower		13.41	Mean		14.38
Upper		15.35			

TABLE 3 - NEWFOUNDLAND

Distance from place of residence to location where most hunting was done for ducks and geese by residents of the province

MILES	DISTANCE TO PLACE OF HUNTING DUCKS		DISTANCE TO PLACE OF HUNTING GEESE	
	Hunters Reporting	Total Miles per hunter	Hunters Reporting	Total Miles per hunter
0	35	0	363	0
1 - 9	268	4.3	78	4.7
10 - 19	92	12.5	36	13.0
20 - 29	45	22.9	24	22.7
30 - 39	31	31.6	20	31.6
40 - 49	21	41.8	6	40.7
50 - 59	11	51.4	3	51.7
60 - 69	10	60.0	5	60.0
70 - 79	6	71.5	4	72.5
80 - 89	7	81.4	-	-
90 - 99	-	-	2	90.0
100 - 149	15	1,625	11	1,210
150 - 199	6	930	5	800
200 - 249	6	1,230	2	430
250 - 299	-	-	1	250
300 - 399	3	960	2	660
400 - 499	-	-	-	-
500 - 999	3	610.0	-	-
Over 1,000	4	10,500	1	4,000
Total	563	24,423	563	10,531
Average		43.4		18.7

TABLE 3 - PRINCE EDWARD ISLAND

Distance from place of residence to location where most hunting was done for ducks and geese by residents of the province

MILES	DISTANCE TO PLACE OF HUNTING DUCKS			DISTANCE TO PLACE OF HUNTING GEESE		
	Hunters Reporting	Total Miles	Miles per hunter	Hunters Reporting	Total Miles	Miles per hunter
0	20		.0	76		.0
1 - 9	101	376	3.7	64	259	4.0
10 - 19	49	663	13.5	38	497	13.1
20 - 29	15	330	22.0	6	142	23.7
30 - 39	6	195	32.5	9	275	30.6
40 - 49	4	166	41.5	1	40	40.0
50 - 59	2	100	50.0	1	50	50.0
70 - 79	1	70	70.0	1	70	70.0
80 - 89	-	-	-	1	80	80.0
100 - 149	-	-	-	1	100	100.0
<b>Total</b>	<b>198</b>	<b>1,900</b>		<b>198</b>	<b>1,513</b>	
<b>Average</b>			<b>9.6</b>			<b>7.6</b>

TABLE 3 - NOVA SCOTIA

Distance from place of residence to location where most hunting was done for ducks and geese by residents of the province

MILES	DISTANCE TO PLACE OF HUNTING DUCKS			DISTANCE TO PLACE OF HUNTING GEESE		
	Hunters Reporting	Total Miles	Miles per hunter	Hunters Reporting	Total Miles	Miles per hunter
0	40		.0	366		.0
1 - 9	247	820	3.3	78	294	3.8
10 - 19	93	1,124	12.1	41	528	12.9
20 - 29	47	1,031	21.9	31	686	22.1
30 - 39	33	1,078	32.7	16	525	32.8
40 - 49	20	820	41.0	9	365	40.6
50 - 59	20	1,007	50.4	5	250	50.0
60 - 69	16	984	61.5	5	303	60.6
70 - 79	7	509	72.7	3	220	73.3
80 - 89	5	405	81.0	1	80	80.0
90 - 99	6	545	90.8	2	180	90.0
100 - 149	25	2,852	114.1	14	1,597	114.1
150 - 199	8	1,265	158.1	1	175	175.0
200 - 249	3	660	220.0	2	400	200.0
300 - 399	2	600	300.0	1	300	300.0
Over 1,000	5	10,100	2,020.0	2	2,600	1,300.0
<b>Total</b>	<b>577</b>	<b>23,800</b>		<b>577</b>	<b>8,503</b>	
<b>Average</b>			<b>41.2</b>			<b>14.7</b>

TABLE 3 - NEW BRUNSWICK

Distance from place of residence to location where most hunting was done for ducks and geese by residents of the province

MILES	DISTANCE TO PLACE OF HUNTING DUCKS			DISTANCE TO PLACE OF HUNTING GEESE		
	Hunters Reporting	Total Miles	Miles per hunter	Hunters Reporting	Total Miles	Miles per hunter
0	47		.0	432		.0
1 - 9	271	906	3.3	99	347	3.5
10 - 19	87	1,124	12.9	31	400	12.9
20 - 29	66	1,474	22.3	17	378	22.2
30 - 39	48	1,543	32.1	9	303	33.7
40 - 49	39	1,594	40.9	12	493	41.1
50 - 59	29	1,474	50.8	12	607	50.6
60 - 69	17	1,049	61.7	3	187	62.3
70 - 79	9	655	72.8	4	290	72.5
80 - 89	7	570	81.4	4	330	82.5
90 - 99	2	180	90.0	1	90	90.0
100 - 149	7	891	127.3	6	735	122.5
150 - 199	2	310	155.0	3	500	166.7
200 - 249	3	650	216.7	-	-	-
250 - 299	1	250	250.0	1	260	260.0
300 - 399	1	350	350.0	1	350	350.0
Over 1,000	-	-	-	1	1,250	1,250.0
Total	636	13,020		636	6,520	
Average			20.5			10.3

TABLE 3 - QUEBEC

Distance from place of residence to location where most hunting was done for ducks and geese by residents of the province

MILES	DISTANCE TO PLACE OF HUNTING DUCKS			DISTANCE TO PLACE OF HUNTING GEESE		
	Hunters Reporting	Total Miles	Miles per hunter	Hunters Reporting	Total Miles	Miles per hunter
0	99		.0	865		.0
1 - 9	392	1,363	3.5	105	358	3.4
10 - 19	151	1,935	12.8	37	469	12.7
20 - 29	84	1,884	22.4	26	610	23.5
30 - 39	78	2,548	32.7	18	603	33.5
40 - 49	82	3,454	42.1	18	765	42.5
50 - 59	59	3,023	51.2	14	719	51.4
60 - 69	68	4,207	61.9	12	742	61.8
70 - 79	35	2,532	72.3	4	285	71.3
80 - 89	31	2,531	81.6	7	572	81.7
90 - 99	16	1,454	90.9	3	270	90.0
100 - 149	58	6,727	116.0	16	1,980	123.8
150 - 199	10	1,675	167.5	20	3,359	168.0
200 - 249	9	1,872	208.0	31	6,540	211.0
250 - 299	3	760	253.3	9	2,250	250.0
300 - 399	6	1,800	300.0	2	640	320.0
400 - 499	3	1,285	428.3	1	400	400.0
500 - 999	6	3,700	616.7	3	1,900	633.3
Over 1,000	4	7,000	1,750.0	3	7,900	2,633.3
Total	1,194	49,750		1,194	30,362	
Average			41.7			25.4



TABLE 3 - ONTARIO

Distance from place of residence to location where most hunting was done for ducks and geese by residents of the province

MILES	DISTANCE TO PLACE OF HUNTING DUCKS			DISTANCE TO PLACE OF HUNTING GEESE		
	Hunters Reporting	Total Miles	Miles per hunter	Hunters Reporting	Total Miles	Miles per hunter
0	123		.0	2,178		.0
1 - 9	797	3,141	3.9	241	938	3.9
10 - 19	451	5,847	13.0	129	1,653	12.8
20 - 29	273	6,133	22.5	72	1,615	22.4
30 - 39	215	6,854	31.9	44	1,419	32.3
40 - 49	144	5,973	41.5	19	780	41.1
50 - 59	112	5,748	51.3	24	1,233	51.4
60 - 69	90	5,511	61.2	14	855	61.1
70 - 79	84	6,064	72.2	15	1,084	72.3
80 - 89	73	6,001	82.2	8	650	81.3
90 - 99	55	5,064	92.1	8	745	93.1
100 - 149	218	24,955	114.5	34	3,971	116.8
150 - 199	91	14,968	164.5	21	3,397	161.8
200 - 249	40	8,539	213.5	6	1,290	215.0
250 - 299	26	6,663	256.3	7	1,835	262.1
300 - 399	20	6,347	317.4	7	2,245	320.7
400 - 499	10	4,315	431.5	3	1,275	425.0
500 - 999	19	12,875	677.6	22	15,241	692.8
Over 1,000	31	48,217	1,555.4	20	37,679	1,884.0
Total	2,872	183,215		2,872	77,905	
Average			63.8			27.1

TABLE 3 - MANITOBA

Distance from place of residence to location where most hunting was done for ducks and geese by residents of the province

MILES	DISTANCE TO PLACE OF HUNTING DUCKS			DISTANCE TO PLACE OF HUNTING GEESE		
	Hunters Reporting	Total Miles	Miles per hunter	Hunters Reporting	Total Miles	Miles per hunter
0	95		.0	779		.0
1 - 9	248	1,161	4.7	124	584	4.7
10 - 19	225	2,938	13.1	120	1,608	13.4
20 - 29	131	2,921	22.3	82	1,905	23.2
30 - 39	135	4,326	32.0	96	3,096	32.3
40 - 49	130	5,473	42.1	92	3,890	42.3
50 - 59	118	5,999	50.8	67	3,399	50.7
60 - 69	100	6,132	61.3	39	2,396	61.4
70 - 79	63	4,494	71.3	35	2,489	71.1
80 - 89	46	3,798	82.6	30	2,471	82.4
90 - 99	42	3,853	91.7	24	2,199	91.6
100 - 149	178	20,453	114.9	101	11,438	113.2
150 - 199	66	10,921	165.5	21	3,431	163.4
200 - 249	31	6,585	212.4	10	2,210	221.0
250 - 299	6	1,525	254.2	2	500	250.0
300 - 399	15	4,937	329.1	9	3,057	339.7
400 - 499	17	7,384	434.4	12	5,231	435.9
500 - 999	28	17,835	637.0	31	19,320	623.2
Over 1,000	5	7,800	1,560.0	5	6,600	1,320.0
Total	1,679	118,535		1,679	75,824	
Average			70.6			45.2

TABLE 3 - SASKATCHEWAN

Distance from place of residence to location where most hunting was done for ducks and geese by residents of the province

MILES	DISTANCE TO PLACE OF HUNTING DUCKS			DISTANCE TO PLACE OF HUNTING GEESE		
	Hunters Reporting	Total Miles	Miles per hunter	Hunters Reporting	Total Miles	Miles per hunter
0	113		.0	837		.0
1 - 9	460	2,187	4.8	190	886	4.7
10 - 19	358	4,384	12.2	171	2,123	12.4
20 - 29	164	3,668	22.4	95	2,120	22.3
30 - 39	122	3,889	31.9	55	1,803	32.8
40 - 49	73	3,040	41.6	25	1,061	42.4
50 - 59	68	3,472	51.1	29	1,484	51.2
60 - 69	69	4,245	61.5	30	1,849	61.6
70 - 79	43	3,101	72.1	18	1,277	70.9
80 - 89	37	3,004	81.2	12	983	81.9
90 - 99	18	1,640	91.1	9	825	91.7
100 - 149	80	9,383	117.3	84	9,975	118.8
150 - 199	34	5,501	161.8	33	5,334	161.6
200 - 249	14	2,900	207.1	30	6,305	210.2
250 - 299	4	1,100	275.0	28	7,255	259.1
300 - 399	9	3,005	333.9	21	6,750	321.4
400 - 499	3	1,250	416.7	2	810	405.0
500 - 999	2	1,500	750.0	2	1,500	750.0
Over 1,000	2	2,000	1,000.0	2	2,000	1,000.0
<b>Total</b>	<b>1,673</b>	<b>59,269</b>		<b>1,673</b>	<b>54,340</b>	
<b>Average</b>			<b>35.4</b>			<b>32.5</b>

TABLE 3 - ALBERTA

Distance from place of residence to location where most hunting was done for ducks and geese by residents of the province

MILES	DISTANCE TO PLACE OF HUNTING DUCKS			DISTANCE TO PLACE OF HUNTING GEESE		
	Hunters Reporting	Total Miles	Miles per hunter	Hunters Reporting	Total Miles	Miles per hunter
0	105		.0	952		.0
1 - 9	326	1,466	4.5	135	533	3.9
10 - 19	304	3,901	12.8	108	1,371	12.7
20 - 29	189	4,212	22.3	59	1,354	22.9
30 - 39	174	5,487	31.5	48	1,534	32.0
40 - 49	136	5,640	41.5	39	1,619	41.5
50 - 59	118	5,999	50.8	42	2,143	51.0
60 - 69	110	6,709	61.0	34	2,077	61.1
70 - 79	55	3,949	71.8	25	1,803	72.1
80 - 89	29	2,348	81.0	23	1,860	80.9
90 - 99	20	1,810	90.5	13	1,180	90.8
100 - 149	101	11,636	115.2	71	8,337	117.4
150 - 199	46	7,270	158.0	94	15,283	162.6
200 - 249	17	3,525	207.4	54	11,234	208.0
250 - 299	9	2,345	260.6	20	5,205	260.3
300 - 399	12	3,890	324.2	34	11,035	324.6
400 - 499	3	1,230	410.0	4	1,670	417.5
500 - 999	7	4,775	682.1	6	4,175	695.8
Over 1,000	2	4,100	2,050.0	2	4,300	2,150.0
<b>Total</b>	<b>1,763</b>	<b>80,292</b>		<b>1,763</b>	<b>76,713</b>	
<b>Average</b>			<b>45.5</b>			<b>43.5</b>

TABLE 3 - BRITISH COLUMBIA

Distance from place of residence to location where most hunting was done for ducks and geese by residents of the province

MILES	DISTANCE TO PLACE OF HUNTING DUCKS			DISTANCE TO PLACE OF HUNTING GEESE		
	Hunters Reporting	Total Miles	Miles per hunter	Hunters Reporting	Total Miles	Miles per hunter
0	64		.0	790		.0
1 - 9	413	1,597	3.9	143	532	3.7
10 - 19	241	3,096	12.8	86	1,107	12.9
20 - 29	130	2,819	21.7	58	1,237	21.3
30 - 39	81	2,575	31.8	26	813	31.3
40 - 49	31	1,273	41.1	10	410	41.0
50 - 59	30	1,545	51.5	6	315	52.5
60 - 69	13	796	61.2	2	121	60.5
70 - 79	23	1,659	72.1	8	580	72.5
80 - 89	13	1,075	82.7	11	913	83.0
90 - 99	7	641	91.6	2	180	90.0
100 - 149	27	2,900	107.4	14	1,625	116.1
150 - 199	10	1,580	158.0	7	1,150	164.3
200 - 249	12	2,500	208.3	5	1,020	204.0
250 - 299	27	6,918	256.2	15	3,790	252.7
300 - 399	33	10,413	315.5	17	5,398	317.5
400 - 499	16	6,650	415.6	8	3,345	418.1
500 - 999	74	53,103	717.6	42	28,990	690.2
Over 1,000	16	18,420	1,151.3	11	11,920	1,083.6
Total	1,261	119,560		1,261	63,446	
Average			94.8			50.3

TABLE 4 - Man-days of recreation and harvest by successful hunters of waterfowl (ducks, geese, coots and sea ducks) by province

Province	Survey Sample Data					
	Hunters Reporting	Man-days of Recreation	Birds Taken	Average Season Bag	Average Daily Bag	Average No. of days per hunter
Newfoundland	395	4,094	4,422	11.32	1.08	10.5
Prince Edward Island	170	2,082	2,120	12.47	1.02	12.2
Nova Scotia	480	5,037	8,009	16.69	1.59	10.5
New Brunswick	522	3,597	5,280	10.11	1.47	6.9
Quebec	1,024	9,418	16,881	16.49	1.79	9.2
Ontario	2,334	17,394	27,917	11.96	1.60	7.5
Manitoba	1,496	10,265	21,459	14.34	2.09	6.9
Saskatchewan	1,704	12,641	27,487	16.13	2.17	7.4
Alberta	1,732	12,697	31,084	17.95	2.45	7.3
British Columbia	1,031	9,881	17,616	17.09	1.78	9.6
Unknown		189	695	-	3.68	-
Total	10,888	87,295	162,970			
Average				14.97	1.87	8.0

TABLE 5 - Consumption of shells by active hunters in relation to birds killed and retrieved

Province	No. of Hunters Reporting	Boxes Shells Used	Boxes per Hunter	SEASON BAG REPORTED			Shells per Bird
				Waterfowl	Others	Total	
Newfoundland	562	614	1.09	4,366	804	5,170	2.97
Prince Edward Island	200	381	1.91	2,121	152	2,273	4.19
Nova Scotia	579	1,319	2.28	8,160	783	8,943	3.69
New Brunswick	649	1,211	1.87	5,390	767	6,157	4.92
Quebec	1,222	4,065	3.33	16,878	2,212	19,090	5.32
Ontario	2,975	6,542	2.20	28,774	2,172	30,946	5.29
Manitoba	1,735	4,936	2.84	22,258	362	22,620	5.46
Saskatchewan	1,798	5,688	3.16	26,233	194	26,427	5.38
Alberta	1,792	5,653	3.15	29,123	375	29,498	4.79
British Columbia	1,251	3,566	2.85	19,216	1,436	20,652	4.32
Unknown	9	28	3.11	133	1	134	5.22
Total	12,772	34,003		162,652	9,258	171,910	
Average			2.66				4.94

TABLE 6 - Distribution of sample

Province	Potential Hunters <sup>1</sup>		Questionnaires Mailed <sup>2</sup>		Usable Responses <sup>3</sup>	
	1966/67	1967/68	Number	Percentage <sup>2</sup>	Number	Percentage <sup>4</sup>
Newfoundland	13,208	14,863	2,584	19.564	882	5.934
Prince Edward Island	3,256	3,094	796	24.447	240	7.757
Nova Scotia	7,187	7,883	1,768	24.600	729	9.248
New Brunswick	8,495	7,739	2,052	24.155	801	10.350
Quebec	35,702	32,491	4,324	12.111	1,504	4.629
Ontario	143,396	146,493	8,780	6.123	3,646	2.489
Manitoba	37,609	35,620	4,024	10.700	1,906	5.351
Saskatchewan	44,537	44,651	4,812	10.804	2,178	4.878
Alberta	52,666	55,892	5,040	9.570	2,207	3.949
British Columbia	32,244	33,195	3,908	12.120	1,467	4.419
Unknown	1,759	1,111				
Total	380,059	383,032	38,088	10.022	15,560	4.062

1 - Permit purchasers as reported in Progress Notes No. 2 of 1967 and No. 4 of 1968.

2 - Based on 1966/67 sales.

3 - Usable responses consist of all questionnaires mailed, less (a) questionnaires mailed to persons who did not purchase a permit in 1967/68; (b) undeliverable envelopes; (c) spoiled, blank or obviously incorrect questionnaires; (d) responses received after deadline dates for processing had passed, and (e) the true non-response of potential 1967/68 hunters who did not return the questionnaire.

4 - Based on 1967/68 sales.

