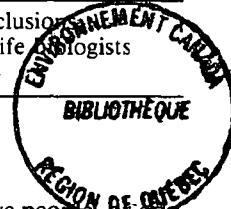


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Migratory game birds harvested in Canada during the 1990 hunting season

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Introduction

The Harvest Questionnaire Survey (HQS) and the Species Composition Survey (SCS) are conducted annually to estimate the number of migratory game birds killed by hunters in Canada. Together they make up the National Harvest Survey (NHS).

Methods

The HQS is based on a questionnaire that asks hunters to provide information on the number, location, and timing of their hunting trips and on migratory game birds killed (for 10 species groups). The questionnaire was mailed in late November 1990 to a sample selected from the lists of purchasers of migratory game bird hunting permits for the current and previous years. A reminder was mailed to non-respondents in early February 1991.

The SCS asks hunters to send in the wing from each duck killed and the tail feathers from each goose killed, along with hunting details. This allows the species group harvest estimates from the HQS to be partitioned by species. Wing/tail envelopes were mailed in August 1990 to hunters selected from lists of permit purchasers in previous years. The results of the SCS do not include estimates of illegal

¹Migratory Bird Populations Division, CWS, Ottawa, Ontario K1A 0H3.

kill, legal hunting without permits by native people, or trapping loss. Cooch et al. (1978) give a full description of the survey methods.

Additional wing envelopes for the SCS were sent in January 1991 to the hunters selected in Newfoundland, as they have been since 1983. This extra survey increases the reliability of the estimate of species composition for Newfoundland, by ensuring that wings from the late harvest of sea ducks are adequately represented. The recent trend in kill estimates by species for this province is not comparable with the results prior to 1983. Murres are also legally taken by hunters in Newfoundland, but that kill is addressed by separate surveys (Elliot et al. 1991).

Hunters in eastern Canada were asked to send a wing from any woodcock shot. The results of this additional wing collection can be obtained from the Canadian Wildlife Service, P.O. Box 1590, Sackville, New Brunswick E0A 3C0.

The 1990 HQS questionnaire used the same concise format as in 1989. A section on rails was added to the question on harvest of species groups, but the rail data have not yet been analyzed.

Results

In the past 25 years, the number of permits sold has changed markedly (Fig. 1). The decrease in sales since 1978 should be noted by those who use kill statistics as indices of trends in migratory game bird populations and harvest characteristics. The permit sale totals for each province are given in Table 1.

Figure 1
Total sales of migratory game bird hunting permits in Canada, 1966-90

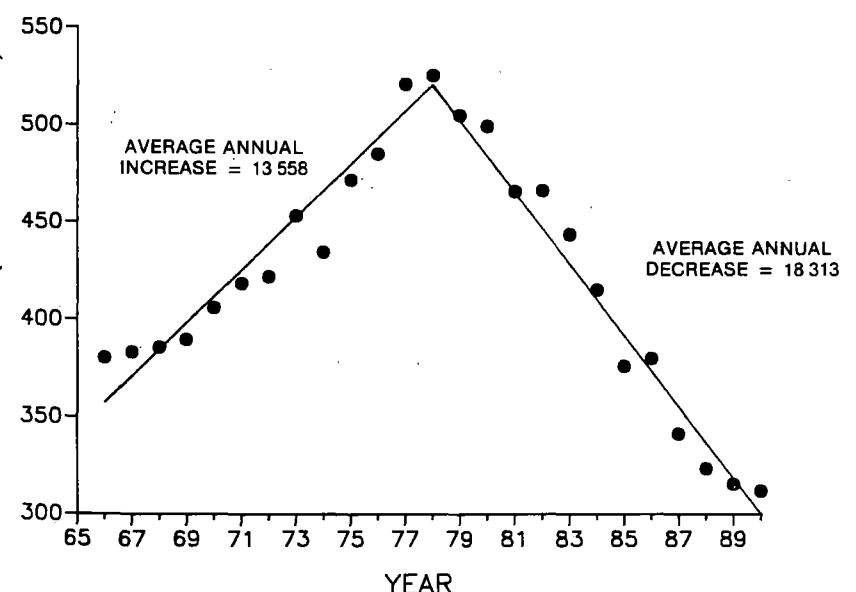


Table 1
Migratory game bird hunting permit sales by province of purchase, 1966-90

Year	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	NWT	Yukon	Total sales
1990	24 831	4 625	10 115	9 974	54 700	115 130	22 641	22 964	32 212	13 851	431	240	311 714
1989	24 707	4 838	10 092	9 971	54 605	114 292	23 898	22 916	34 559	14 694	420	308	315 300
1988	23 655	4 906	10 264	10 646	57 206	117 310	25 108	23 258	34 513	15 595	496	367	323 324
1987	21 080	4 959	10 299	9 897	55 124	122 472	30 207	29 930	40 122	16 259	523	391	341 263
1986	25 498	5 300	11 047	11 083	59 685	131 930	33 570	37 692	45 042	17 924	692	358	379 821
1985	25 652	5 171	10 749	10 354	60 823	130 089	31 753	36 445	44 880	18 753	713	361	375 743
1984	31 309	5 525	12 896	11 486	65 308	140 521	35 238	37 720	51 717	21 892	850	496	414 958
1983	30 977	5 898	13 468	12 758	67 700	139 569	40 443	45 383	61 742	24 170	750	474	443 332
1982	31 215	5 461	13 728	12 759	72 850	144 436	45 273	47 236	64 968	26 522	800	572	465 820
1981	31 406	5 611	14 130	12 287	75 178	141 677	46 528	42 856	66 163	28 243	764	514	465 352
1980	31 362	5 802	14 257	12 471	76 133	147 952	48 340	54 081	79 318	27 943	732	525	498 916
1979	35 490	5 888	14 098	13 409	73 209	150 224	49 344	56 174	77 021	28 263	755	584	504 459
1978	37 297	6 396	16 297	15 249	74 745	159 698	50 169	57 958	77 117	28 561	821	638	524 946
1977	36 188	6 158	15 744	14 209	72 828	156 895	46 438	60 029	82 175	28 357	902	607	520 530
1976	29 621	5 756	13 326	13 743	66 453	143 816	46 816	61 669	75 739	26 561	893	513	484 771
1975	30 115	4 963	13 990	12 930	63 768	148 670	42 846	57 723	69 191	25 918	721	485	471 320
1974	25 127	5 038	13 791	11 916	58 345	136 469	37 167	51 504	66 127	27 764	591	323	434 162
1973	27 919	4 972	15 071	12 869	57 247	141 277	41 711	51 307	67 012	33 456	— ^a	—	452 841
1972	23 682	4 492	12 158	11 336	53 082	131 427	41 133	50 004	63 309	31 032	—	—	421 677
1971	23 460	4 513	11 381	11 146	50 276	133 563	40 960	49 448	62 902	30 225	—	—	418 237
1970	21 347	3 926	9 926	10 293	46 009	135 231	39 230	47 722	59 986	31 350	—	—	405 650
1969	19 089	3 794	8 848	10 110	39 477	134 037	41 611	45 347	53 602	32 764	—	—	389 325
1968	17 645	3 649	9 022	9 558	37 110	139 182	38 712	43 596	53 623	33 301	—	—	385 553
1967	14 863	3 094	7 883	7 739	32 491	146 493	35 620	44 651	55 892	33 195	—	—	383 032
1966	13 269	3 271	7 220	8 535	35 868	144 063	37 784	44 744	52 911	32 394	—	—	380 059

^a No data.

The survey results are summarized for the same 23 geographic zones for which the survey sample selection is stratified (Fig. 2).

The distribution of permit sales between those who purchased a permit the previous year (renewals) and those who did not, and between resident and nonresident (non-Canadian) purchasers, is shown in Table 2.

Table 3 gives the number of permit purchasers who were sampled and who responded to the 1990 HQS. This is compared with earlier years in Table 4. Tables 5 through 15 present the results of the HQS questionnaire. Indications of the amount of recreational activity provided by hunting are presented in Tables 6 and 14.

Table 16 shows the number of permit purchasers who were sampled and who responded to the 1990 SCS. Results of the SCS are used to assign species-specific proportions to the estimated duck and goose kills. The most recent four years of estimated harvests for each species are summarized for Canada (Table 17) and by province and zone (Tables 18 through 29), based on data from both the HQS and the SCS.

In some areas, Canada Geese are further identified to groups of subspecies based on size differences. In the

western provinces, the tables show kills for Large and Small Canada Geese; elsewhere, subspecies that could not be separated are recorded simply as Canada Geese.

In the process of calculating estimates, rounding to significant digits took place at the last step in the analyses. It should not be expected that rounded column totals will equal the sum of values that have also been rounded.

References

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Elliot, R.D.; Collins, B.T.; Hayakawa, E.G.; Métras, L. 1991. The harvest of murres in Newfoundland from 1977-78 to 1987-88. Pages 36-44 in Gaston, A.J.; Elliot, R.D. (eds.). Studies of high-latitude seabirds. 2. Conservation biology of Thick-billed Murres in the Northwest Atlantic. Can. Wildl. Serv. Occas. Pap. No. 69.

Figure 2
Geographic zones used in selecting samples for the HQS and SCS
and for reporting their results

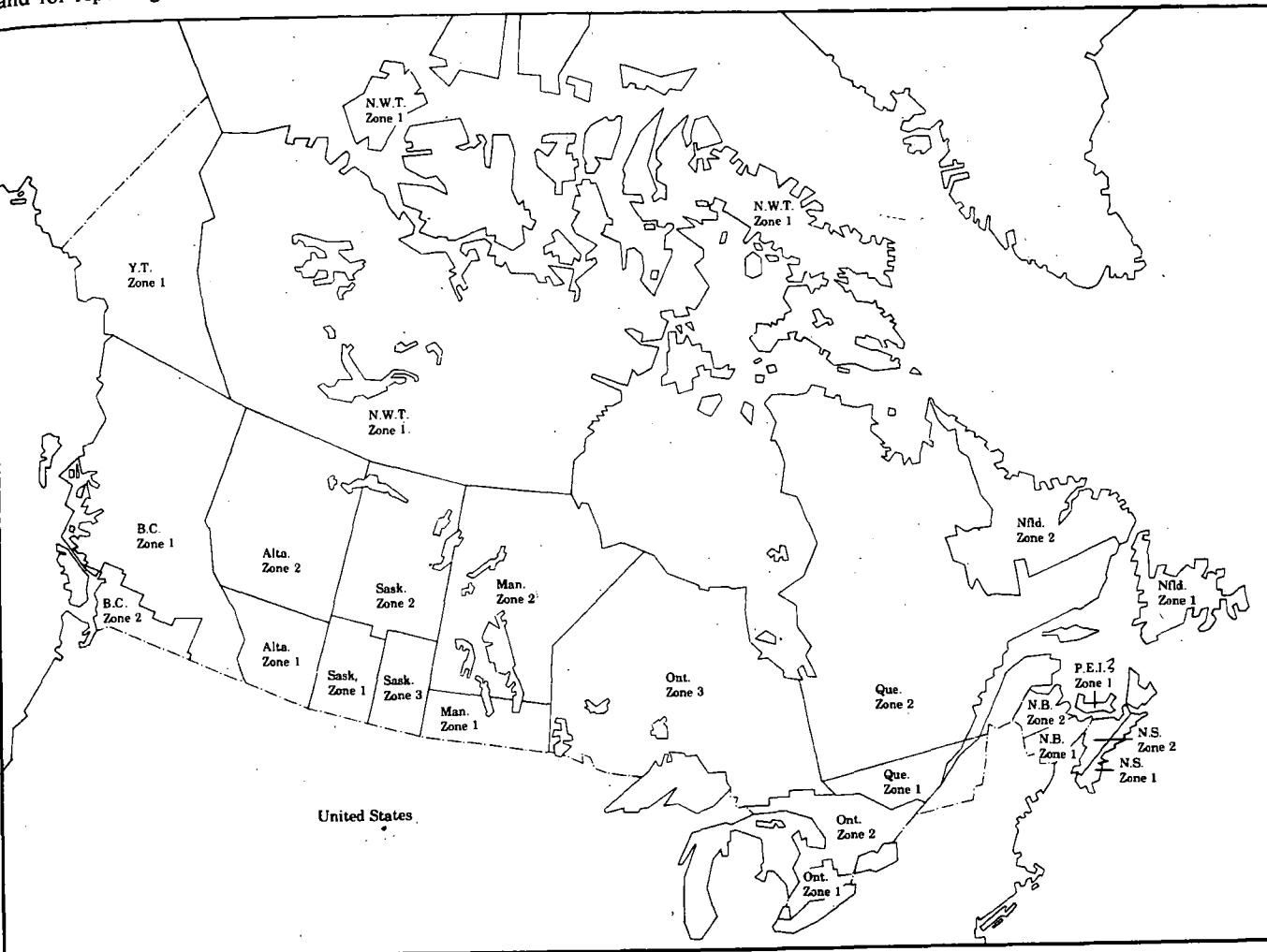


Table 2
Permit sales (renewals/nonrenewals and resident/nonresident) by province and zone, 1990

Province	Zone	Permit sales			Renewals			Nonrenewals		
		Total	Res.	Nonres.	Total	Res.	Nonres.	Total	Res.	Nonres.
Nfld.	1	22 217	22 122	95	16 821	16 748	73	5 396	5 374	22
	2	2 614	2 614		2 182	2 182		432	432	
	Total	24 831	24 736	95	19 003	18 930	73	5 828	5 806	22
PEI	Total	4 625	4 538	87	4 146	4 082	64	479	456	23
NS	1	7 202	7 186	16	6 050	6 042	8	1 152	1 144	8
	2	2 913	2 850	63	2 264	2 212	52	649	638	11
	Total	10 115	10 036	79	8 314	8 254	60	1 801	1 782	19
NB	1	6 512	6 308	204	4 996	4 870	126	1 516	1 438	78
	2	3 462	3 333	129	2 588	2 521	67	874	812	62
	Total	9 974	9 641	333	7 584	7 391	193	2 390	2 250	140
Que.	1	41 788	41 151	637	32 751	32 489	262	9 037	8 662	375
	2	12 912	12 843	69	9 407	9 363	44	3 505	3 480	25
	Total	54 700	53 994	706	42 158	41 852	306	12 542	12 142	400
Ont.	1	35 112	30 958	4 154	28 936	25 913	3 023	6 176	5 045	1 131
	2	60 000	59 206	794	50 873	50 341	532	9 127	8 865	262
	3	20 018	16 497	3 521	15 264	13 008	2 256	4 754	3 489	1 265
	Total	115 130	106 661	8 469	95 073	89 262	5 811	20 057	17 399	2 658
Man.	1	18 404	15 301	3 103	15 940	13 525	2 415	2 464	1 776	688
	2	4 237	3 241	996	3 546	2 828	718	691	413	278
	Total	22 641	18 542	4 099	19 486	16 353	3 133	3 155	2 189	966
Sask.	1	8 829	7 597	1 232	6 718	6 035	683	2 111	1 562	549
	2	4 641	4 311	330	3 449	3 261	188	1 192	1 050	142
	3	9 494	7 861	1 633	7 071	6 063	1 008	2 423	1 798	625
	Total	22 964	19 769	3 195	17 238	15 359	1 879	5 726	4 410	1 316
Alta.	1	13 192	12 758	434	10 262	10 024	238	2 930	2 734	196
	2	19 020	18 387	633	14 903	14 541	362	4 117	3 846	271
	Total	32 212	31 145	1 067	25 165	24 565	600	7 047	6 580	467
BC	1	6 170	5 959	211	4 094	4 002	92	2 076	1 957	119
	2	7 681	7 622	59	5 964	5 946	18	1 717	1 676	41
	Total	13 851	13 581	270	10 058	9 948	110	3 793	3 633	160
NWT	Total	431	406	25	286	276	10	145	130	15
Yukon	Total	240	230	10	123	120	3	117	110	7
Canada	Total	311 714	293 279	18 435	248 634	236 392	12 242	63 080	56 887	6 193

Table 3
Characteristics of sample of the HQS by province and zone, 1990

Province	Zone	Characteristics of sample							
		Sample ^a	Responses ^b	Response rate ^c	Permit purchasers ^d	Active hunters ^e	% ^f	Successful hunters ^g	% ^h
Nfld.	1	2 448	966	39.5	675	430	64	311	46
	2	686	175	25.5	135	95	70	80	59
	Total	3 134	1 141	36.4	810	525	65	391	48
PEI	Total	535	226	42.2	176	141	80	123	70
NS	1	1 490	673	45.2	503	401	80	345	69
	2	463	251	54.2	142	114	80	98	69
	Total	1 953	924	47.3	645	515	80	443	69
NB	1	621	322	51.9	255	215	84	200	78
	2	332	166	50.0	123	83	68	74	60
	Total	953	488	51.2	378	298	79	274	73
Que.	1	3 985	2 230	56.0	1 620	1 285	79	1 191	74
	2	1 705	906	53.1	627	456	73	426	68
	Total	5 690	3 136	55.1	2 247	1 741	78	1 617	72
Ont.	1	2 782	1 614	58.0	1 344	1 040	77	903	67
	2	6 036	3 529	58.5	2 826	2 089	74	1 746	62
	Total	12 556	7 124	56.7	5 866	4 470	76	3 855	66
Man.	1	3 068	1 660	54.1	1 346	1 229	91	1 151	86
	2	1 240	593	47.8	495	451	91	429	87
	Total	4 308	2 253	52.3	1 841	1 680	91	1 580	86
Sask.	1	1 421	684	48.1	527	452	86	424	81
	2	970	409	42.2	291	254	87	236	81
	Total	3 937	1 913	48.6	1 498	1 301	87	1 226	82
Alta.	1	4 584	2 362	51.5	1 476	1 156	78	1 064	72
	2	3 642	1 855	50.9	1 418	1 131	80	1 056	75
	Total	8 226	4 217	51.3	2 894	2 287	79	2 120	73
BC	1	960	533	55.5	355	263	74	240	68
	2	1 593	887	55.7	593	419	71	376	63
	Total	2 553	1 420	55.6	948	682	72	616	65
NWT	Total	227	102	44.9	63	46	73	43	68
Yukon	Total	150	81	54.0	48	33	69	30	63
Canada	Total	44 222	23 025	52.1	17 414	13 719	79	12 318	71

^a Number of questionnaires sent out.

^b Questionnaires that were completed and returned.

^c Percentage of sample for which responses were received.

^d Respondents who bought a permit in 1990 (usable responses).

^e Respondents who hunted.

^f Percentage of permit purchasers who hunted.

^g Respondents who hunted successfully.

^h Percentage of permit purchasers who hunted successfully.

Table 4
Characteristics of sample of the HQS, 1975-90

Year	Permit sales	Characteristics of sample							
		Sample ^a	% ^b	Responses	% ^c	Permit purchasers	% ^d	Active hunters	% ^e
1975	471 320	40 400	8.6	20 648	51.1	15 872	76.9	12 980	81.8
1976	484 771	44 969	9.3	20 397	45.4	15 729	77.1	12 805	81.4
1977	520 530	45 015	8.6	22 896	50.9	17 833	77.9	14 119	79.2
1978	524 946	44 968	8.6	25 745	57.3	19 806	76.9	15 505	78.3
1979	504 459	44 743	8.9	23 699	53.0	17 808	75.1	13 642	77.0
1980	498 916	44 743	9.0	24 297	54.3	18 364	75.6	14 344	78.1
1981	465 352	44 631	9.6	21 269	47.7	15 471	72.7	11 760	76.0
1982	465 820	41 559	8.9	19 542	47.0	14 701	75.2	11 376	77.0
1983	443 332	40 612	9.2	19 080	47.0	14 629	76.7	11 515	78.7
1984	414 958	40 502	9.8	19 157	47.3	14 793	76.0	11 425	77.0
1985	375 743	40 502	10.8	19 371	47.8	14 253	73.6	11 373	80.0
1986	379 821	40 502	10.7	20 210	49.9	15 312	75.8	12 264	80.1
1987	341 263	37 607	11.0	17 407	46.3	13 034	74.9	10 479	80.4
1988	323 324	38 010	11.8	23 455	61.7	17 599	75.0	13 308	75.6
1989	315 300	43 770	13.9	21 703	49.6	16 476	75.9	12 909	78.4
1990	311 714	44 222	14.2	23 025	52.1	17 414	75.6	13 719	78.8
Average	427 598	42 297	10.2	21 369	50.5	16 193	75.7	12 720	78.6
								10 980	67.9

^a Number of questionnaires sent out.

^b Sample as a percentage of permit sales.

^c Percentage of sampled population who responded.

^d Percentage of respondents who bought a permit.

^e Percentage of permit purchasers who hunted.

^f Percentage of permit purchasers who hunted successfully.

Table 5
Estimated number of successful hunters, and waterfowl harvested, by province, species group, and zone, 1988-90

Province/ species group	Zone	Successful hunters			Birds harvested			Birds harvested/ successful hunter		
		1988	1989	1990	1988	1989	1990	1988	1989	1990
Newfoundland										
Ducks	1	8 455	9 403	9 169	68 024	67 393	66 356	8.05	7.17	7.24
	2	1 241	1 666	1 584	15 821	25 548	25 597	12.75	15.33	16.15
Total		9 696	11 070	10 753	83 846	92 941	91 953	8.65	8.40	8.55
Geese	1	1 925	1 928	1 505	6 004	4 739	4 718	3.12	2.46	3.27
	2	.573	989	742	3 185	4 508	3 592	5.55	4.55	4.84
Total		2 498	2 918	2 247	9 189	9 248	8 310	3.68	3.17	3.80
Prince Edward Island										
Ducks	Total	3 296	1 995	2 272	34 331	21 660	20 346	10.42	10.85	8.95
Geese	Total	2 926	3 013	2 629	24 500	22 708	24 769	8.37	7.53	9.42
Nova Scotia										
Ducks	1	3 706	4 392	3 944	53 950	91 698	81 367	14.56	20.87	20.63
	2	2 695	2 161	2 037	30 859	28 232	22 187	11.45	13.06	10.89
Total		6 401	6 554	5 981	84 810	119 931	103 554	13.25	18.30	17.31
Geese	1	1 067	1 803	1 012	6 542	13 543	3 967	6.13	7.51	3.92
	2	725	844	463	3 224	3 030	2 902	4.44	3.59	6.26
Total		1 793	2 648	1 475	9 767	16 574	6 869	5.44	6.26	4.66
New Brunswick										
Ducks	1	4 882	4 573	4 909	46 525	47 639	56 409	9.53	10.42	11.49
	2	2 176	1 855	1 772	17 112	16 949	13 598	7.86	9.14	7.67
Total		7 059	6 429	6 681	63 638	64 589	70 007	9.01	10.05	10.48
Geese	1	352	903	802	1 110	3 599	5 476	3.15	3.98	6.82
	2	719	1 055	846	3 419	3 808	3 965	4.75	3.61	4.68
Total		1 071	1 959	1 648	4 529	7 408	9 441	4.23	3.78	5.72

(continued)

Table 5 (concluded)
Estimated number of successful hunters, and waterfowl harvested, by province, species group, and zone, 1988-90

Province/ species group	Zone	Successful hunters			Birds harvested			Birds harvested/ successful hunter		
		1988	1989	1990	1988	1989	1990	1988	1989	1990
Quebec										
Ducks	1	27 862	24 938	25 607	366 725	343 655	359 196	13.16	13.78	14.03
	2	7 178	7 715	8 857	80 188	91 236	98 244	11.17	11.82	11.09
Total		35 041	32 654	34 464	446 914	434 892	457 440	12.75	13.32	13.27
Geese	1	8 663	12 407	14 741	51 573	79 294	96 786	5.95	6.39	6.57
	2	2 440	3 693	3 876	13 266	22 125	21 615	5.44	5.99	5.58
Total		11 104	16 100	18 617	64 840	101 420	118 401	5.84	6.30	6.36
Ontario										
Ducks	1	13 506	15 401	15 381	157 339	192 038	210 841	91.65	12.47	13.71
	2	38 871	36 340	36 040	380 228	352 141	345 374	9.78	9.69	9.5

Table 6
Estimated recreational activity provided by the hunting of ducks and geese, 1990

Province	Zone	Permit sales	Active hunters	Successful hunters	Birds harvested	Recreation days	S. bag ^a (avg.)	D. bag ^b (avg.)	R. days ^c (avg.)
Nfld.	1	22 217	13 181	9 302	71 075	163 951	5.4	0.4	12.4
	2	2 614	1 978	1 620	29 189	24 355	14.8	1.2	12.3
	Total	24 831	15 159	10 922	100 264	188 306	6.6	0.5	12.4
PEI	Total	4 625	3 956	3 414	45 115	46 690	11.4	1.0	11.8
NS	1	7 202	4 632	3 997	85 335	54 532	18.4	1.6	11.8
	2	2 913	2 529	2 144	25 089	21 968	9.9	1.1	8.7
	Total	10 115	7 161	6 141	110 424	76 500	15.4	1.4	10.7
NB	1	6 512	5 387	5 034	61 885	34 812	11.5	1.8	6.5
	2	3 462	2 106	1 859	17 564	16 678	8.3	1.1	7.9
	Total	9 974	7 493	6 893	79 449	51 490	10.6	1.5	6.9
Que.	1	41 788	30 725	27 951	455 982	304 715	14.8	1.5	9.9
	2	12 912	10 061	9 285	119 859	100 849	11.9	1.2	10.0
	Total	54 700	40 786	37 236	575 841	405 564	14.1	1.4	9.9
Ont.	1	35 112	20 890	17 569	254 135	195 724	12.2	1.3	9.4
	2	60 000	45 902	37 852	386 984	333 315	8.4	1.2	7.3
	3	20 018	14 088	12 033	146 649	110 525	10.4	1.3	7.8
	Total	115 130	80 880	67 454	787 768	639 564	9.7	1.2	7.9
Man.	1	18 404	14 494	13 118	167 328	96 369	11.5	1.7	6.6
	2	4 237	5 297	4 829	71 724	32 192	13.5	2.2	6.1
	Total	22 641	19 791	17 947	239 052	128 561	12.1	1.9	6.5
Sask.	1	8 829	7 303	6 921	101 297	41 490	13.9	2.4	5.7
	2	4 641	4 943	4 519	70 919	32 215	14.3	2.2	6.5
	3	9 494	8 198	7 623	105 361	55 789	12.9	1.9	6.8
	Total	22 964	20 444	19 063	277 577	129 494	13.6	2.1	6.3
Alta.	1	13 192	12 027	11 106	140 338	70 444	11.7	2.0	5.9
	2	19 020	16 549	15 579	247 743	114 476	15.0	2.2	6.9
	Total	32 212	28 576	26 685	388 081	184 920	13.6	2.1	6.5
BC	1	6 170	4 822	3 911	46 689	31 943	9.7	1.5	6.6
	2	7 681	3 928	3 536	64 541	37 092	16.4	1.7	9.4
	Total	13 851	8 750	7 447	111 230	69 035	12.7	1.6	7.9
NWT	Total	431	487	462	6 126	3 493	12.6	1.8	7.2
Yukon	Total	240	149	140	969	828	6.5	1.2	5.6
Canada	Total	311 714	233 632	203 804	2 721 896	1 924 445	11.7	1.4	8.2

^a S. bag = mean seasonal bag per active hunter.

^b D. bag = mean daily bag per active hunter.

^c R. days = mean recreation days per active hunter.

Table 7
Estimated number of migratory game birds, other than waterfowl, harvested in Canada, 1985-90

Species	1985	1986	1987	1988	1989	1990	1985-90 avg.
American Woodcock	90 374	104 602	131 393	115 806	103 776	99 802	107 626
Common Snipe	54 971	55 169	54 765	36 652	49 532	39 683	48 462
American Coot	21 183	15 297	10 923	11 515	10 005	8 863	12 964
Sandhill Crane	5 159	6 106	5 268	6 946	4 985	4 839	5 551
Mourning Dove	455	529	1 165	294	845	579	645
Band-tailed Pigeon	1 561	1 291	1 851	1 778	1 022	668	1 362
Total	173 703	182 994	205 365	172 991	170 165	154 434	176 609

Table 8
Estimated number of successful hunters of American Woodcock, and birds harvested, by province and zone, 1988-90

Province	Zone	Successful hunters			Birds harvested			Birds harvested/ successful hunter		
		1988	1989	1990	1988	1989	1990	1988	1989	1990
PEI	Total	100	93	104	112	126	224	1.1	1.4	2.2
NS	1	315	262	341	2 888	1 453	2 773	9.2	5.5	8.1
	2	147	260	246	385	1 795	1 566	2.6	6.9	6.3
	Total	462	523	587	3 274	3 248	4 339	7.1	6.2	7.4
NB	1	659	812	905	5 808	9 380	8 241	8.8	11.5	9.1
	2	417	297	343	2 391	3 076	1 853	5.7	10.4	5.4
	Total	1 076	1 109	1 248	8 199	12 457	10 094	7.6	11.2	8.1
Que.	1	4 207	4 424	3 878	40 710	30 289	32 237	9.7	6.9	8.3
	2	596	752	826	3 256	3 278	5 433	5.5	4.4	6.6
	Total	4 803	5 176	4 704	43 967	33 568	37 670	9.1	6.5	8.0
Ont.	1	2 180	2 503	2 469	26 517	19 399	16 829	12.2	7.8	6.8
	2	5 074	4 704	3 696	30 290	30 010	23 988	6.0	6.4	6.5
	3	875	1 021	1 149	3 443	4 964	6 658	3.9	4.9	5.8
	Total	8 130	8 229	7 314	60 251	54 375	47 475	7.4	6.6	6.5
Canada	Total	14 573	15 132	13 957	115 806	103 776	99 802	7.9	6.9	7.2
No. of successful hunters sampled		629	634	642						

Table 9
Estimated number of successful hunters of Common Snipe, and
birds harvested, by province and zone, 1988-90

Province	Zone	Successful hunters			Birds harvested			Birds harvested/ successful hunter		
		1988	1989	1990	1988	1989	1990	1988	1989	1990
Nfld.	1	1 292	2 117	1 489	5 917	11 050	8 003	4.6	5.2	5.4
	2	40	118	70	70	378	1 343	1.8	3.2	19.0
	Total	1 332	2 236	1 559	5 987	11 428	9 346	4.5	5.1	6.0
PEI	Total	59	126	69	568	348	143	9.5	2.8	2.1
NS	1	176	162	279	726	2 956	832	4.1	18.2	3.0
	2	188	127	109	593	585	607	3.2	4.5	5.6
	Total	365	290	388	1 320	3 542	1 439	3.6	12.2	3.7
NB	1	249	348	346	1 302	1 367	1 469	5.2	3.9	4.3
	2	72	153	61	414	404	92	5.7	2.7	1.5
	Total	322	501	407	1 716	1 772	1 561	5.3	3.5	3.8
Que.	1	2 921	2 964	2 208	12 366	15 864	12 971	4.2	5.4	5.9
	2	640	868	597	3 380	4 548	2 943	5.3	5.2	4.9
	Total	3 561	3 832	2 805	15 747	20 413	15 914	4.4	5.3	5.7
Ont.	1	310	360	174	1 439	2 853	621	4.6	7.9	3.6
	2	1 217	1 062	894	3 757	3 540	4 023	3.1	3.3	4.5
	3	227	188	349	1 214	808	1 388	5.3	4.3	4.0
Man.	Total	1 756	1 611	1 417	6 411	7 202	6 032	3.7	4.5	4.3
	1	138	77	150	907	328	878	6.6	4.2	5.8
	2	64	16	30	481	129	202	7.4	8.0	6.7
Sask.	Total	203	93	180	1 389	458	1 080	6.8	4.9	6.0
	1	22	42	56	136	122	267	6.0	2.9	4.7
	2	30	—	—	125	—	—	4.1	—	—
Alta.	3	23	81	93	235	735	637	10.0	9.0	6.8
	Total	76	123	149	497	857	904	6.5	6.9	6.0
	1	133	116	170	1 164	477	593	8.7	4.1	3.5
BC	2	171	218	205	681	1 605	2 457	4.0	7.3	12.0
	Total	305	335	375	1 845	2 083	3 050	6.0	6.2	8.1
	1	81	49	19	362	542	25	4.4	11.0	1.4
NWT	2	151	116	42	802	883	116	5.3	7.6	2.7
	Total	233	165	61	1 164	1 425	141	5.0	8.6	2.3
	—	—	—	—	—	—	—	—	—	—
Yukon	Total	4	—	14	4	—	73	1.0	—	5.0
Canada	Total	8 220	9 316	7 424	36 652	49 532	39 683	4.5	5.3	5.3
No. of successful hunters sampled		372	392	335						

Table 10
Estimated number of successful hunters of American Coot, and
birds harvested, by province and zone, 1988-90

Province	Zone	Successful hunters			Birds harvested			Birds harvested/ successful hunter		
		1988	1989	1990	1988	1989	1990	1988	1989	1990
NS	1	—	9	—	—	—	—	37	—	—
	2	—	—	—	—	—	—	—	—	—
	Total	—	9	—	—	—	—	37	—	—
Que.	1	1 269	1 152	1 016	5 593	3 726	3 590	4.4	3.2	3.5
	2	129	173	219	270	668	1 410	2.1	3.9	6.4
	Total	1 399	1 325	1 235	5 863	4 394	5 000	4.2	3.3	4.1
Ont.	1	104	174	103	426	366	364	4.1	2.1	3.5
	2	557	601	309	1 243	1 615	657	2.2	2.7	2.1
	3	313	121	266	1 125	473	1 028	3.6	3.9	3.9
	Total	976	897	678	2 794	2 455	2 049	2.9	2.7	3.0
Man.	1	72	184	87	145	935	451	2.0	5.1	5.2
	2	91	30	37	458	204	179	5.0	6.8	4.8
	Total	164	214	124	604	1 139	630	3.7	5.3	5.1
Sask.	1	38	116	30	76	309	65	2.0	2.7	2.1
	2	146	71	20	692	779	60	4.7	10.9	3.0
	3	74	20	88	162	40	255	2.2	2.0	3.0
	Total	259	208	138	931	1 129	380	3.6	5.4	2.7
Alta.	1	70	99	112	188	195	224	2.7	2.0	2.0
	2	49	9	83	253	9	238	5.1	1.0	2.8
	Total	120	109	195	441	205	462	3.7	1.9	2.4
BC	1	98	99	38	792	297	295	8.1	3.0	7.8
	2	24	65	23	87	345	47	3.5	5.3	2.0
	Total	123	165	61	879	642	342	7.2	3.9	5.5
NWT	Total	—	—	—	—	—	—	—	—	—
Yukon	Total	—	—	—	—	—	—	—	—	—
Canada	Total	3 043	2 929	2 431	11 515	10 005	8 863	3.8	3.4	3.6
No. of successful hunters sampled		154	149	149						

Table 11
Estimated number of successful hunters of Sandhill Crane, and
birds harvested, by province and zone, 1988-90

Province	Zone	Successful hunters			Birds harvested			Birds harvested/ successful hunter		
		1988	1989	1990	1988	1989	1990	1988	1989	1990
Man.	1	376	424	305	1 340	1 329	973	3.6	3.1	3.2
	2	194	173	33	614	1 337	45	3.2	7.7	1.4
	Total	570	598	338	1 955	2 666	1 018	3.4	4.5	3.0
Sask.	1	221	155	354	1 215	709	1 537	5.5	4.6	4.3
	2	43	—	50	147	—	158	3.4	—	3.1
	3	697	332	368	3 628	1 609	2 126	5.2	4.8	5.8
	Total	962	487	772	4 991	2 318	3 821	5.2	4.8	4.9
Canada	Total	1 533	1 086	1 110	6 946	4 985	4 839	4.5	4.6	4.4
No. of successful hunters sampled		72	53	60						

Table 12
Estimated number of successful hunters of Mourning Dove, and
birds harvested, by province and zone, 1988-90

Province	Zone	Successful hunters			Birds harvested			Birds harvested/ successful hunter		
		1988	1989	1990	1988	1989	1990	1988	1989	1990
BC	1	27	44	60	256	319	279	9.5	7.2	4.6
	2	12	38	28	37	525	300	3.0	13.7	10.7
	Total	39	82	88	294	845	579	7.4	10.2	6.5
No. of successful hunters sampled		3	4	7						

Table 13
Estimated number of successful hunters of Band-tailed Pigeon, and
birds harvested, by province and zone, 1988-90

Province	Zone	Successful hunters			Birds harvested			Birds harvested/ successful hunter		
		1988	1989	1990	1988	1989	1990	1988	1989	1990
BC	1	—	16	12	—	328	24	—	20.0	2.0
	2	185	105	116	1 778	693	644	9.6	6.6	5.5
	Total	185	121	128	1 778	1 022	668	9.6	8.5	5.2
No. of successful hunters sampled		14	7	10						

Table 14
Estimated recreational activity provided by the hunting of migratory
game birds other than waterfowl, 1990

Province	Zone	Permit sales	Active hunters	Successful hunters	Birds harvested	Recreation days	S. bag ^a (avg.)	D. bag ^b (avg.)	R. days ^c (avg.)
Nfld.	1	22 217	3 392	1 489	8 003	31 622	2.4	0.3	9.3
	2	2 614	324	70	1 343	5 028	4.1	0.3	15.5
	Total	24 831	3 716	1 559	9 346	36 650	2.5	0.3	9.9
PEI	Total	4 625	476	173	368	3 233	0.8	0.1	6.8
	1	7 202	1 624	514	3 606	12 551	2.2	0.3	7.7
	2	2 913	793	298	2 173	4 233	2.7	0.5	5.3
NS	Total	10 115	2 417	812	5 779	16 784	2.4	0.3	6.9
	1	6 512	1 538	1 032	9 711	11 850	6.3	0.8	7.7
	2	3 462	602	374	1 945	2 625	3.2	0.7	4.4
NB	Total	9 974	2 140	1 406	11 656	14 475	5.4	0.8	6.8
	1	41 788	7 907	5 663	48 798	55 175	6.2	0.9	7.0
	2	12 912	2 093	1 360	9 788	12 898	4.7	0.8	6.2
Que.	Total	54 700	10 000	7 023	58 586	68 073	5.9	0.9	6.8
	1	35 112	4 640	2 632	17 814	24 995	3.8	0.7	5.4
	2	60 000	8 695	4 327	28 669	53 138	3.3	0.5	6.1
Ont.	3	20 018	2 619	1 422	9 075	18 774	3.5	0.5	7.2
	Total	115 130	15 954	8 381	55 558	96 907	3.5	0.6	6.1
Man.	1	18 404	1 889	500	2 303	11 883	1.2	0.2	6.3
	2	4 237	734	97	428	4 164	0.6	0.1	5.7
	Total	22 641	2 623	597	2 731	16 047	1.0	0.2	6.1
Sask.	1	8 829	978	404	1 870	2 943	1.9	0.6	3.0
	2	4 641	535	70	218	2 814	0.4	0.1	5.3
	3	9 494	1 352	533	3 019	8 922	2.2	0.3	6.6
Total	22 964	2 865	1 007	5 107	14 679	1.8	0.3	5.1	
Alta.	1	13 192	1 034	282	818	6 380	0.8	0.1	6.2
	2	19 020	1 146	280	2 695	7 577	2.4	0.4	6.6
	Total	32 212	2 180	562	3 513	13 957	1.6	0.3	6.4
BC	1	6 170	345	111	625	1 251	1.8	0.5	3.6
	2	7 681	428	199	1 109	1 784	2.6	0.6	4.2
	Total	13 851	773	310	1 734	3 035	2.2	0.6	3.9
NWT	Total	431	51	—	—	754	—	—	14.8
Yukon	Total	240	17	14	73	49	4.3	1.5	2.9
Canada	Total	311 714	43 212	21 844	154 451	284 643	3.6	0.5	6.6

^a S. bag = mean seasonal bag per active hunter.

^b D. bag = mean daily bag per active hunter.

^c R. days = mean recreation days per active hunter.

Table 15
Precision of estimates of 90% confidence of active hunters, duck kill, and goose kill from the HQS by province and zone, 1989-90

Province	Zone	Year	Active hunters (\pm %)	Duck harvest (\pm %)	Goose harvest (\pm %)
Nfld.	1	1989	11 378 \pm 6.79	59 393 \pm 14.29	4 161 \pm 27.62
		1990	11 431 \pm 6.77	59 071 \pm 19.39	4 047 \pm 46.53
	2	1989	1 923 \pm 13.61	24 299 \pm 24.12	4 367 \pm 31.95
		1990	1 731 \pm 14.93	20 733 \pm 27.18	3 226 \pm 43.19
PEI		1989	3 877 \pm 10.03	21 295 \pm 33.05	22 455 \pm 22.80
		1990	3 545 \pm 10.06	17 408 \pm 26.88	22 122 \pm 28.86
NS	1	1989	4 682 \pm 7.09	89 554 \pm 16.07	12 803 \pm 24.74
		1990	4 337 \pm 7.36	78 500 \pm 15.60	3 742 \pm 29.03
	2	1989	2 562 \pm 12.71	26 555 \pm 30.76	2 976 \pm 37.99
		1990	2 418 \pm 12.17	21 186 \pm 22.69	2 881 \pm 53.71
NB	1	1989	4 998 \pm 8.45	44 135 \pm 19.21	3 419 \pm 56.12
		1990	5 096 \pm 8.68	54 516 \pm 21.85	4 182 \pm 42.14
	2	1989	2 366 \pm 15.20	16 770 \pm 26.70	3 808 \pm 33.78
		1990	2 004 \pm 17.28	13 236 \pm 28.22	3 659 \pm 45.97
Que.	1	1989	27 527 \pm 3.86	315 395 \pm 8.73	68 851 \pm 13.00
		1990	26 382 \pm 4.00	310 099 \pm 8.90	82 241 \pm 10.91
	2	1989	8 192 \pm 7.09	82 901 \pm 13.02	20 041 \pm 19.85
		1990	8 792 \pm 6.98	87 458 \pm 11.55	18 703 \pm 22.96
Ont.	1	1989	19 558 \pm 5.18	175 664 \pm 10.40	40 562 \pm 19.83
		1990	18 877 \pm 5.15	187 741 \pm 12.09	38 672 \pm 15.67
	2	1989	44 340 \pm 3.03	342 168 \pm 6.58	34 288 \pm 13.94
		1990	43 273 \pm 2.99	325 574 \pm 8.33	39 445 \pm 12.18
Man.	1	1989	14 373 \pm 4.95	130 924 \pm 9.08	29 620 \pm 14.58
		1990	13 383 \pm 5.18	118 020 \pm 9.05	16 050 \pm 19.67
	2	1989	14 495 \pm 4.56	73 267 \pm 10.50	122 976 \pm 8.40
		1990	13 567 \pm 4.52	69 586 \pm 9.78	88 944 \pm 9.04
Sask.	1	1989	5 974 \pm 7.43	42 265 \pm 10.62	41 965 \pm 12.49
		1990	5 119 \pm 7.37	36 891 \pm 10.61	32 679 \pm 13.36
	2	1989	7 734 \pm 6.87	34 778 \pm 16.70	69 231 \pm 9.67
		1990	6 843 \pm 6.82	32 409 \pm 16.44	62 726 \pm 11.09
Alta.	1	1989	4 487 \pm 9.14	34 229 \pm 16.65	31 450 \pm 19.92
		1990	4 548 \pm 8.66	31 525 \pm 15.77	32 933 \pm 15.84
	2	1989	6 888 \pm 6.72	29 724 \pm 15.73	44 344 \pm 11.20
		1990	7 743 \pm 6.15	43 308 \pm 10.61	55 583 \pm 11.15
BC	1	1989	13 245 \pm 4.26	83 630 \pm 8.84	69 076 \pm 9.99
		1990	11 667 \pm 4.54	79 989 \pm 8.83	56 094 \pm 9.63
	2	1989	16 231 \pm 4.20	167 260 \pm 9.14	79 343 \pm 9.96
		1990	15 600 \pm 4.18	141 990 \pm 8.57	88 029 \pm 9.03
NWT	1	1989	4 384 \pm 10.53	33 254 \pm 19.21	10 235 \pm 22.23
		1990	4 696 \pm 9.26	34 935 \pm 16.54	10 471 \pm 20.73
	2	1989	4 493 \pm 8.89	59 461 \pm 16.65	6 294 \pm 24.05
		1990	3 696 \pm 8.09	55 252 \pm 14.11	4 119 \pm 19.81
Yukon		1989	366 \pm 26.30	3 787 \pm 54.43	1 195 \pm 52.79
		1990	439 \pm 26.42	4 108 \pm 39.22	1 441 \pm 64.20
Canada total		1989	224 213 \pm 1.31	1 891 434 \pm 2.88	723 747 \pm 3.41
		1990	215 331 \pm 1.31	1 823 993 \pm 3.09	672 384 \pm 3.39

Table 16
Characteristics of sample of the SCS by province and zone, 1990

Characteristics of sample					
Province	Zone	Permit sales	Sample	Response rate ^a	Estimated rate from successful hunters ^b
Nfld.	1	22 217	969	12.8	44
	2	2 614	456	7.9	19
PEI		4 625	989	7.7	14
NS	1	7 202	1 924	9.3	17
	2	2 913	930	11.3	20
NB	1	6 512	714	13.4	20
	2	3 462	853	8.9	22
Que.	1	41 788	1 949	28.5	49
	2	12 912	1 200	19.4	39
Ont.	1	35 112	1 713	19.6	38
	2	60 000	2 258	23.2	51
	3	20 018	2 261	13.0	23
Man.	1	18 404	850	17.3	22
	2	4 237	233	17.6	22
Sask.	1	8 829	383	16.7	24
	2	4 641	294	10.5	15
	3	9 494	367	22.6	31
Alta.	1	13 192	802	18.7	33
	2	19 020	784	14.4	24
BC	1	6 170	1 498	10.1	20
	2	7 681	1 190	10.3	23
NWT		431	109	9.2	19
Yukon		240	69	5.8	13
Canada total		311 714	22 795	15.6	28

^a The percentage of selected hunters who submitted a part sample.

^b The percentage of successful hunters who submitted a part sample, obtained using response rate / (% of successful hunters \times % of active hunters).

^c The percentage of the total hunting population who submitted a part sample, obtained using number of responses / estimated active hunters.

Table 17
Total waterfowl harvest in Canada by species, 1987-90

Species	1987		1988		1989		1990	
	Harvest	%	Harvest	%	Harvest	%	Harvest	%
Common Merganser	21 650	0.9	25 710	1.3	18 703	0.9	21 313	1.1
Red-breasted Merganser	8 106	0.3	8 362	0.4	16 658	0.8	9 185	0.5
Hooded Merganser	25 033	1.1	24 926	1.3	27 228	1.4	24 700	1.2
Mallard	1 040 370	44.5	661 465	33.6	734 329	36.7	731 683	36.8
American Black Duck	297 036	12.7	302 649	15.4	261 617	13.1	243 740	12.3
Gadwall	39 211	1.7	24 255	1.2	38 790	1.9	35 210	1.8
European Wigeon	0	0.0	0	0.0	0	0.0	61	0.1
American Wigeon	63 060	2.7	46 394	2.4	58 044	2.9	47 426	2.4
Eurasian Green-winged Teal	0	0.0	0	0.0	77	0.0	0	0.0
American Green-winged Teal	134 778	5.8	148 546	7.6	199 566	10.0	199 646	10.0
Blue-winged Teal	48 154	2.1	44 125	2.2	45 660	2.3	38 098	1.9
Northern Shoveler	20 900	0.9	19 481	1.0	19 656	1.0	14 693	0.7
Northern Pintail	70 433	3.0	64 439	3.3	63 790	3.2	72 784	3.7
Wood Duck	146 584	6.3	131 965	6.7	133 321	6.7	139 619	7.0
Redhead	23 510	1.0	73 359	3.7	6 507	0.3	16 993	0.9
Canvasback	11 040	0.5	8 797	0.4	6 165	0.3	8 972	0.5
Greater Scaup	24 337	1.0	31 272	1.6	34 972	1.8	27 642	1.4
Lesser Scaup	73 792	3.2	71 886	3.7	84 099	4.2	68 616	3.5
Ring-necked Duck	103 931	4.4	97 917	4.9	85 676	4.3	110 322	5.5
Common Goldeneye	71 201	3.0	80 431	4.1	64 507	3.2	78 005	3.9
Barrow's Goldeneye	2 202	0.1	24 014	1.2	4 138	0.2	1 215	0.1
Bufflehead	38 430	1.6	15 522	0.8	28 506	1.4	28 425	1.4
Ruddy Duck	1 313	0.1	636	0.0	1 003	0.1	751	0.1
Oldsquaw	11 382	0.5	9 048	0.5	9 370	0.5	6 267	0.3
Common Eider	23 041	1.0	19 906	1.0	22 926	1.1	25 933	1.3
King Eider	1 093	0.0	64	0.0	220	0.0	648	0.1
Harlequin Duck	1 197	0.1	1 193	0.0	298	0.0	342	0.1
Black Scoter	12 474	0.5	5 471	0.3	7 230	0.4	6 918	0.3
White-winged Scoter	12 202	0.5	12 675	0.6	11 889	0.6	10 406	0.5
Surf Scoter	13 480	0.6	11 759	0.6	16 537	0.8	18 754	0.9
Total ducks	2 339 940	100.0	1 966 267	100.0	2 001 482	100.0	1 988 367	100.0
Canada Goose	211 361	28.6	189 947	31.7	230 739	30.4	210 473	28.7
Small Canada Goose	78 587	10.6	53 542	8.9	87 085	11.5	70 614	9.6
Large Canada Goose	242 125	32.8	154 859	25.9	204 171	26.9	232 767	31.7
Lesser Snow Goose (white phase)	61 392	8.3	74 127	12.4	81 999	10.8	65 638	8.9
Lesser Snow Goose (blue phase)	46 578	6.3	38 011	6.4	55 019	7.2	36 146	4.9
Greater Snow Goose	37 586	5.1	42 949	7.2	41 590	5.5	60 658	8.3
Ross' Goose	5 484	0.7	4 640	0.8	4 890	0.6	8 846	1.2
White-fronted Goose	53 774	7.3	40 072	6.7	54 566	7.2	48 121	6.6
Brant	1 078	0.1	319	0.0	100	0.0	265	0.1
Total geese	739 237	100.0	598 466	100.0	760 159	100.0	733 528	100.0
Total waterfowl	3 079 177	—	2 564 733	—	2 761 641	—	2 721 895	—

Table 18
Estimated number of waterfowl harvested in Newfoundland, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Common Merganser	1	3 940	10.1	6 703	9.5	4 513	6.7	4 381	6.6
	2	0	0.0	4 354	27.5	954	3.7	357	1.4
	Total	3 940	6.7	11 057	13.2	5 467	5.9	4 738	5.2
Red-breasted Merganser	1	2 581	6.6	1 433	2.1	7 073	10.5	1 635	2.5
	2	142	0.7	975	6.2	1 011	4.0	2 130	8.3
	Total	2 723	4.6	2 408	2.9	8 084	8.7	3 765	4.1
Hooded Merganser	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	569	2.8	0	0.0	0	0.0	575	2.3
	Total	569	1.0	0	0.0	0	0.0	575	0.6
Mallard	1	1 130	2.9	0	0.0	724	1.1	278	0.4
	2	0	0.0	0	0.0	608	2.4	683	2.7
	Total	1 130	1.9	0	0.0	1 332	1.4	961	1.1
American Black Duck	1	12 819	32.9	14 989	22.0	24 978	37.1	17 385	26.2
	2	3 988	19.7	4 914	31.0	3 328	13.0	5 221	20.4
	Total	16 807	28.4	19 903	23.7	28 306	30.5	22 606	24.7
Gadwall	1	0	0.0	0	0.0	0	0.0	87	0.1
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	87	0.1
American Wigeon	1	0	0.0	0	0.0	1 331	2.0	87	0.1
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	1 331	1.4	87	0.1
American Green-winged Teal	1	4 969	12.8	6 465	9.5	10 270	15.2	8 541	12.9
	2	1 296	6.4	0	0.0	3 787	14.8	1 307	5.1
	Total	6 265	10.6	6 465	7.7	14 057	15.1	9 848	10.8
Blue-winged Teal	1	98	0.3	0	0.0	786	1.2	278	0.4
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	98	0.2	0	0.0	786	0.8	278	0.3
Northern Pintail	1	0	0.0	2 245	3.3	604	0.9	2 659	4.0
	2	1 137	5.6	0	0.0	657	2.6	1 450	5.7
	Total	1 137	1.9	2 245	2.7	1 261	1.4	4 109	4.5
Canvasback	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0

Table 18 (concluded)
Estimated number of waterfowl harvested in Newfoundland, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Common Goldeneye	1	5 208	13.4	12 050	17.7	4 701	7.0	8 058	12.1
	2	1 397	6.9	3 318	21.0	3 241	12.7	7 233	28.3
	Total	6 605	11.2	15 368	18.3	7 942	8.6	15 291	16.6
Barrow's Goldeneye	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	107	0.4	114	0.5
	Total	0	0.0	0	0.0	107	0.1	114	0.1
Total sport ducks		45 338	76.5	63 879	76.2	79 639	85.7	77 262	84.0
Oldsquaw	1	0	0.0	2 992	4.4	0	0.0	975	1.5
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	2 992	3.6	0	0.0	975	1.1
Common Eider	1	2 063	5.3	11 388	16.7	3 307	4.9	6 828	10.3
	2	9 388	46.3	2 260	14.3	5 517	21.6	1 404	5.5
	Total	11 451	19.3	13 648	16.3	8 824	9.5	8 232	9.0
King Eider	1	0	0.0	0	0.0	0	0.0	211	0.3
	2	786	3.9	0	0.0	0	0.0	0	0.0
	Total	786	1.3	0	0.0	0	0.0	211	0.2
Harlequin Duck	1	0	0.0	0	0.0	0	0.0	342	0.5
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	342	0.4
Black Scoter	1	0	0.0	153	0.2	0	0.0	87	0.1
	2	852	4.2	0	0.0	495	1.9	295	1.2
	Total	852	1.4	153	1.4	495	0.5	382	0.4
White-winged Scoter	1	0	0.0	2 167	3.2	248	0.4	1 107	1.7
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	2 167	2.6	248	0.3	1 107	1.2
Surf Scoter	1	98	0.3	1 005	1.5	1 139	1.7	278	0.4
	2	709	3.5	0	0.0	2 595	10.2	3 163	12.4
	Total	807	1.4	1 005	1.2	3 734	4.0	3 441	3.8
Total sea ducks		13 896	23.5	19 965	23.8	13 301	14.3	14 690	16.0
Total ducks		59 234	100.0	83 844	100.0	92 940	100.0	91 952	100.0
Canada Goose	1	5 290	100.0	6 004	100.0	4 739	100.0	2 411	51.1
	2	5 633	100.0	3 185	100.0	4 508	100.0	3 592	100.0
	Total	10 923	100.0	9 189	100.0	9 247	100.0	6 003	72.2
Greater Snow Goose	1	0	0.0	0	0.0	0	0.0	315	6.7
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	315	3.8
White-fronted Goose	1	0	0.0	0	0.0	0	0.0	1 992	42.2
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	1 992	24.0
Brant	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0
Total geese		10 923	100.0	9 189	100.0	9 247	100.0	8 310	100.0
Total waterfowl		70 157	—	93 033	—	102 187	—	100 262	—

^a Zonal percentages were calculated as (species / total ducks or total geese in zone) × 100; total percentages were calculated as (species /total ducks or total geese in province) × 100.

Table 19
Estimated number of waterfowl harvested in Prince Edward Island, 1987-90

Species	1987		1988		1989		1990	
	Harvest	%	Harvest	%	Harvest	%	Harvest	%
Common Merganser	0	0.0	0	0.0	0	0.0	0	0.0
Red-breasted Merganser	0	0.0	97	0.3	130	0.6	92	0.5
Hooded Merganser	0	0.0	80	0.2	0	0.0	35	0.2
mallard	1 070	3.7	954	2.8	977	4.5	943	4.6
American Black Duck	17 629	61.4	20 893	60.9	11 944	55.1	11 570	56.9
Gadwall	0	0.0	160	0.5	148	0.7	309	1.3
American Wigeon	668	2.3	190	0.6	391	1.8	258	1.3
American Green-winged Teal	5 386	18.8	7 156	20.8	5 948	27.5	4 040	19.9
Blue-winged Teal	484	1.7	931	2.7	536	2.5	1 315	6.5
Northern Shoveler	138	0.5	80	0.2	49	0.2	0	0.0
Northern Pintail	1 803	6.3	1 277	3.7	601	2.8	469	2.3
Wood Duck	0	0.0	0	0.0	49	0.2	0	0.0
Greater Scaup	911	3.2	93	0.3	49	0.2	35	0.2
Lesser Scaup	614	2.1	1 500	4.4	787	3.6	1 235	6.1
Ring-necked Duck	0	0.0	613	1.8	0	0.0	0	0.0
Common Goldeneye	0	0.0	0	0.0	0	0.0	0	0.0
Barrow's Goldeneye	0	0.0	0	0.0	0	0.0	0	0.0
Bufflehead	0	0.0	307	0.9	0	0.0	0	0.0
Total sport ducks	28 703	100.0	34 331	100.0	21 660	99.7	20 346	100.0
Common Eider	0	0.0	0	0.0	0	0.0	0	0.0
Oldsquaw	0	0.0	0	0.0	0	0.0	0	0.0
Black Scoter	0	0.0	0	0.0	0	0.0	0	0.0
White-winged Scoter	0	0.0	0	0.0	0	0.0	0	0.0
Surf Scoter	0	0.0	0	0.0	0	0.0	0	0.0
Total sea ducks	0	0.0	0	0.0	0	0.0	0	0.0
Total ducks	28 703	100.0	34 331	100.0	21 660	100.0	20 346	100.0
Canada Goose	21 236	100.0	24 500	100.0	22 608	99.6	24 769	100.0
Brant	0	0.0	0	0.0	100	0.4	0	0.0
Total geese	21 236	100.0	24 500	100.0	22 708	100.0	24 769	100.0
Total waterfowl	49 939	—	58 831	—	44 368	—	45 115	—

Table 20
Estimated number of waterfowl harvested in Nova Scotia, 1987-90

Species	Zone	1987		1988 ^a		1989		1990	
		Harvest	% ^b	Harvest	% ^b	Harvest	% ^b	Harvest	% ^b
Common Merganser	1	913	1.5	529	1.0	1 489	1.6	516	0.6
	2	228	0.9	612	2.0	730	2.6	705	3.2
	Total	1 141	1.3	1 141	1.3	2 219	1.8	1 221	1.2
Red-breasted Merganser	1	905	1.5	1 333	2.5	2 505	2.7	1 123	1.4
	2	330	1.3	240	0.8	539	1.9	354	1.6
	Total	1 235	1.4	1 573	1.9	3 044	2.5	1 477	1.4
Hooded Merganser	1	191	0.3	156	0.3	430	0.5	0	0.0
	2	35	0.1	95	0.3	318	1.1	0	0.0
	Total	226	0.3	251	0.3	748	0.6	0	0.0
Mallard	1	2 569	4.3	1 320	2.5	3 223	3.5	2 827	3.5
	2	1 588	6.1	1 087	3.5	1 236	4.4	754	3.4
	Total	4 157	4.8	2 407	2.8	4 459	3.7	3 581	3.5
American Black Duck	1	28 768	47.8	24 743	45.9	30 607	33.4	27 073	33.3
	2	14 807	57.2	19 917	64.5	15 354	54.4	11 178	50.4
	Total	43 575	50.6	44 660	52.7	45 961	38.3	38 251	36.9
Gadwall	1	0	0.0	151	0.3	0	0.0	137	0.2
	2	0	0.0	0	0.0	0	0.0	19	0.1
	Total	0	0.0	151	0.2	0	0.0	156	0.2
Eurasian Wigeon	1	0	0.0	0	0.0	0	0.0	38	0.1
	2	0	0.0	0	0.0	0	0.0	23	0.1
	Total	0	0.0	0	0.0	0	0.0	61	0.1
American Wigeon	1	0	0.0	35	0.1	81	0.1	113	0.1
	2	681	2.6	104	0.3	407	1.4	235	1.1
	Total	681	0.8	139	0.2	488	0.4	348	0.3
American Green-winged Teal	1	4 331	7.2	4 092	7.6	17 182	18.7	14 538	17.9
	2	4 793	18.5	4 910	15.9	5 901	20.9	4 720	21.3
	Total	9 124	10.6	9 002	10.6	23 083	19.2	19 258	18.6
Blue-winged Teal	1	502	0.8	69	0.1	81	0.1	75	0.1
	2	632	2.4	346	1.1	374	1.3	131	0.6
	Total	1 134	1.3	415	0.4	455	0.4	206	0.2
Northern Shoveler	1	110	0.2	0	0.0	253	0.3	76	0.1
	2	0	0.0	0	0.0	128	0.5	23	0.1
	Total	110	0.1	0	0.0	381	0.3	99	0.1
Northern Pintail	1	491	0.8	130	0.2	218	0.2	331	0.4
	2	124	0.5	335	1.1	134	0.5	372	1.7
	Total	615	0.7	465	0.5	342	0.3	703	0.7
Wood Duck	1	350	0.6	357	0.7	651	0.7	341	0.4
	2	708	2.7	208	0.7	166	0.6	237	1.1
	Total	1 058	1.2	565	0.7	817	0.7	578	0.6
Redhead	1	0	0.0	107	0.2	0	0.0	0	0.0
	2	35	0.1	0	0.0	0	0.0	0	0.0
	Total	35	0.0	107	0.1	0	0.0	0	0.0
Canvasback	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0
Greater Scaup	1	584	1.0	2 271	4.2	2 032	2.2	1 441	1.8
	2	124	0.5	747	2.4	647	2.3	274	1.2
	Total	708	0.8	3 018	3.6	2 679	2.2	1 715	1.7
Lesser Scaup	1	651	1.1	787	1.5	1 238	1.4	814	1.0
	2	253	0.8	253	0.8	40	0.1	254	1.1
	Total	681	1.1	1 040	1.2	1 278	1.1	1 068	1.7

(continued)

Table 20 (concluded)
Estimated number of waterfowl harvested in Nova Scotia, 1987-90

Species	Zone	1987		1988 ^a		1989		1990	
		Harvest	% ^b	Harvest	% ^b	Harvest	% ^b	Harvest	% ^b
Ring-necked Duck	1	1 229	2.0			1 798	3.3	2 044	2.2
	2	872	3.4			911	3.0	560	2.0
	Total	2 101	2.4			2 709	3.2	2 604	2.2
Common Goldeneye	1	3 116	5.2			3 013	5.6	6 845	7.5
	2	545	2.1			822	2.7	1 085	3.8
	Total	3 661	4.3			3 835	4.5	7 930	6.6
Barrow's Goldeneye	1	0	0.0			0	0.0	317	0.4
	2	15	0.1			0	0.0	0	0.0
	Total	15	0.0			0	0.0	317	0.3
Bufflehead	1	587	1.0			1 974	3.7	888	0.1
	2	76	0.3			209	0.7	0	0.0
	Total	663	0.8			2 183	2.6	888	0.7
Ruddy Duck	1	98	0.2			0	0.0	0	0.0
	2	0	0.0			0	0.0	0	0.0
	Total	0	0.1			0	0.0	0	0.0
Total sport ducks		71 018	82.5			73 661	86.9	97 693	81.5
								78 116	75.4
Oldsquaw	1	3 312	5.5			2 314	4.3	2 856	3.1
	2	164	0.6			0	0.0	0	0.0
	Total	3 476	4.0			2 314	2.7	2 856	2.4
Common Eider	1	5 635	9.4			4 047	7.5	11 906	13.0
	2	0	0.0			0	0.0	99	0.4
	Total	5 635	6.5			4 047	4.8	12 005	12.5
King Eider	1	99	0.2			0	0.0	163	0.2
	2	0	0.0			0	0.0	57	0.2

Table 21
Estimated number of waterfowl harvested in New Brunswick, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Common Merganser	1	823	2.0	346	0.7	0	0.0	336	0.6
	2	577	3.1	281	1.6	854	5.0	156	1.1
	Total	1 400	2.3	627	1.0	854	1.3	492	0.7
Red-breasted Merganser	1	104	0.3	0	0.0	0	0.0	0	0.0
	2	144	0.8	190	1.1	51	0.3	193	1.4
	Total	248	0.4	190	0.3	51	0.1	193	0.3
Hooded Merganser	1	202	0.5	661	1.4	56	0.1	44	0.1
	2	718	3.9	300	1.8	139	0.8	0	0.0
	Total	920	1.5	961	1.5	195	0.3	44	0.1
Mallard	1	2 125	5.1	1 476	3.2	1 627	3.4	2 690	4.8
	2	1 082	5.8	122	0.7	579	3.4	530	3.9
	Total	3 207	5.4	1 598	2.5	2 206	3.4	3 220	4.6
American Black Duck	1	16 574	40.0	19 149	41.2	18 259	38.3	18 410	32.6
	2	10 125	54.6	11 937	69.8	7 822	46.2	7 712	56.7
	Total	26 699	44.6	31 086	48.9	26 081	40.4	26 122	37.3
Gadwall	1	0	0.0	0	0.0	0	0.0	88	0.2
	2	72	0.4	0	0.0	0	0.0	0	0.0
	Total	72	0.1	0	0.0	0	0.0	88	0.1
American Wigeon	1	1 757	4.2	1 406	3.0	1 548	3.3	1 335	2.4
	2	561	3.0	148	0.9	755	4.5	0	0.0
	Total	2 318	3.9	1 554	2.4	2 303	3.6	1 335	1.9
American Green-winged Teal	1	4 903	11.8	6 966	14.9	10 124	21.3	10 221	18.1
	2	2 189	11.8	904	5.3	2 648	15.6	1 622	11.9
	Total	7 092	11.8	7 870	12.4	12 772	19.8	11 843	16.9
Blue-winged Teal	1	2 587	6.3	1 819	3.9	1 694	3.6	3 292	5.8
	2	144	0.8	579	3.4	51	0.3	363	2.7
	Total	2 731	4.6	2 398	3.8	1 745	2.7	3 655	5.2
Northern Shoveler	1	0	0.0	277	0.6	178	0.4	110	0.2
	2	144	0.8	0	0.0	139	0.8	0	0.0
	Total	144	0.2	277	0.4	317	0.5	110	0.2
Northern Pintail	1	695	1.7	416	0.9	1 167	2.5	1 022	1.8
	2	388	2.1	367	2.1	280	1.7	785	5.8
	Total	1 083	1.8	783	1.2	1 447	2.2	1 807	2.6
Wood Duck	1	3 177	7.7	3 394	7.3	2 377	5.0	3 022	5.4
	2	504	2.7	414	2.4	403	2.4	162	1.2
	Total	3 681	6.1	3 808	5.9	2 780	4.3	3 184	4.5
Redhead	1	49	0.1	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	49	0.1	0	0.0	0	0.0	0	0.0
Greater Scaup	1	1 131	2.7	230	0.5	651	1.4	329	0.6
	2	253	1.4	129	0.8	906	5.3	94	0.7
	Total	1 384	2.3	359	0.6	1 557	2.4	423	0.6
Lesser Scaup	1	349	0.8	277	0.6	796	1.7	1 201	2.1
	2	0	0.0	122	0.7	388	2.3	572	4.2
	Total	349	0.6	399	0.6	1 184	1.8	1 773	2.5
Ring-necked Duck	1	4 059	9.8	5 153	11.1	5 316	11.2	7 932	14.1
	2	388	2.1	538	3.2	1 399	8.3	780	5.7
	Total	4 447	7.4	5 691	8.9	6 715	10.4	8 712	12.4
Common Goldeneye	1	1 689	4.1	3 918	8.4	3 148	6.6	3 885	6.9
	2	505	2.7	151	0.9	336	2.0	174	1.3
	Total	2 194	3.7	4 069	6.4	3 484	5.4	4 059	5.8

Table 21 (concluded)
Estimated number of waterfowl harvested in New Brunswick, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Barrow's Goldeneye	1	46	0.1	552	1.2	326	0.7	219	0.4
	2	0	0.0	309	1.8	0	0.0	0	0.0
	Total	46	0.1	861	1.4	326	0.5	219	0.3
Bufflehead	1	453	1.1	0	0.0	373	0.8	567	1.0
	2	0	0.0	43	0.3	0	0.0	62	0.5
	Total	453	0.8	43	0.0	373	0.6	629	0.9
Ruddy Duck	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	59	0.4	0	0.0
	Total	0	0.0	0	0.0	59	0.1	0	0.0
Total sport ducks		58 517	97.6	62 574	98.3	64 449	99.8	67 908	97.0
Oldsquaw	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	28	0.2	0	0.0	0	0.0
	Total	0	0.0	28	0.0	0	0.0	0	0.0
Common Eider	1	248	0.6	417	0.9	0	0.0	1 199	2.1
	2	0	0.0	43	0.3	0	0.0	112	0.8
	Total	248	0.4	460	0.7	0	0.0	1 311	1.9
King Eider	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0
Harlequin Duck	1	68	0.2	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	68	0.1	0	0.0	0	0.0	0	0.0
Black Scoter	1	228	0.6	0	0.0	0	0.0	0	0.0
	2	614	3.3	322	1.9	0	0.0	225	1.7
	Total	842	1.4	322	0.5	0	0.0	225	0.3
White-winged Scoter	1	0	0.0	69	0.2				

Table 22
Estimated number of waterfowl harvested in Quebec, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Common Merganser	1	6 933	1.8	5 109	1.4	4 369	1.3	5 495	1.5
	2	4 046	4.4	2 295	2.9	3 076	3.4	5 821	5.9
	Total	10 979	2.3	7 404	1.7	7 445	1.7	11 316	2.5
Red-breasted Merganser	1	2 139	0.6	1 984	0.5	2 776	0.8	2 412	0.7
	2	939	1.0	916	1.1	1 046	1.2	771	0.8
	Total	3 078	0.7	2 900	0.7	3 822	0.9	3 183	0.7
Hooded Merganser	1	7 219	1.9	5 168	1.4	11 022	3.2	6 478	1.8
	2	1 760	1.9	708	0.9	1 256	1.4	1 157	1.2
	Total	8 979	1.9	5 876	1.3	12 278	2.8	7 635	1.7
Mallard	1	103 059	27.4	73 243	20.0	59 485	17.3	75 542	21.0
	2	13 734	14.99	9 052	11.3	14 509	15.9	10 838	11.0
	Total	116 793	24.9	82 295	18.4	73 994	17.0	86 380	18.9
American Black Duck	1	96 399	25.6	91 936	25.1	67 633	19.7	68 884	19.2
	2	33 521	36.3	34 189	42.6	33 515	36.7	36 610	37.3
	Total	129 920	27.7	126 125	28.2	101 148	23.3	105 494	23.1
Gadwall	1	4 700	1.2	4 688	1.3	3 656	1.1	3 646	1.0
	2	65	0.1	115	0.1	124	0.2	41	0.1
	Total	4 765	1.0	4 803	1.1	3 780	0.9	3 687	0.8
American Wigeon	1	4 069	1.1	2 365	0.7	4 565	1.3	4 499	1.3
	2	1 153	1.2	693	0.9	930	1.1	778	0.8
	Total	5 222	1.1	3 058	0.7	5 495	1.3	5 277	1.2
American Green-winged Teal	1	32 844	8.7	43 402	11.8	57 072	16.6	73 141	20.4
	2	7 375	8.0	8 961	11.2	13 373	14.7	16 671	17.0
	Total	40 219	8.6	52 363	11.7	70 445	16.2	89 812	19.6
Blue-winged Teal	1	6 624	1.8	4 688	1.3	4 521	1.3	2 736	0.8
	2	1 373	1.5	1 178	1.5	1 676	1.8	1 460	1.5
	Total	7 997	1.7	5 866	1.3	6 197	1.4	4 196	0.9
Northern Shoveler	1	2 000	0.5	2 016	0.6	2 340	0.7	1 726	0.5
	2	0	0.0	781	1.0	435	0.5	123	0.1
	Total	2 000	0.4	2 797	0.6	2 775	0.6	1 849	0.4
Northern Pintail	1	10 243	2.7	11 021	3.0	12 353	3.6	15 065	4.2
	2	1 678	1.8	1 622	2.0	2 934	3.2	4 773	4.9
	Total	11 921	2.5	12 643	2.8	15 287	3.5	19 838	4.3
Wood Duck	1	21 377	5.7	25 297	6.9	24 306	7.1	22 144	6.2
	2	1 443	1.6	1 238	1.5	1 204	1.3	1 490	1.5
	Total	22 820	4.9	26 535	5.9	25 510	5.9	23 634	5.2
Redhead	1	1 609	0.4	1 157	0.3	993	0.3	458	0.1
	2	80	0.1	0	0.0	0	0.0	0	0.0
	Total	1 689	0.4	1 157	0.3	993	0.2	458	0.1
Canvasback	1	530	0.1	535	0.2	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	530	0.1	535	0.1	0	0.0	0	0.0
Greater Scaup	1	6 489	1.7	13 001	3.6	9 656	2.8	9 199	2.6
	2	694	0.8	765	1.0	275	0.3	415	0.4
	Total	7 183	1.5	13 766	3.1	9 931	2.3	9 614	2.1
Lesser Scaup	1	9 339	2.5	18 597	5.1	23 411	6.8	20 195	5.6
	2	2 852	3.1	3 918	4.9	3 758	4.1	3 913	4.0
	Total	12 191	2.6	22 515	5.0	27 169	6.2	24 108	5.2

(continued)

Table 22 (continued)
Estimated number of waterfowl harvested in Quebec, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Ring-necked Duck	1	18 795	5.0	27 104	7.4	22 385	6.5	15 728	4.4
	2	4 857	5.3	3 180	4.0	3 494	3.8	3 794	3.9
	Total	23 652	5.0	30 284	6.8	25 879	6.0	19 522	4.3
Common Goldeneye	1	17 775	4.7	15 389	4.2	5 403	1.6	15 267	4.3
	2	2 836	3.1	2 275	2.8	3 589	3.9	2 271	2.3
	Total	20 611	4.4	17 664	4.0	8 992	2.1	17 538	3.8
Barrow's Goldeneye	1	0	0.0	0	0.0	1 188	0.4	151	0.1
	2	413	0.4	97	0.1	549	0.6	262	0.3
	Total	413	0.1	97	0.0	1 737	0.4	413	0.1
Bufflehead	1	4 302	1.1	5 118	1.4	4 359	1.3	3 506	1.0
	2	634	0.7	525	0.7	635	0.7	76	0.1
	Total	4 936	1.1	5 643	1.3	4 994	1.1	3 582	0.8
Ruddy Duck	1	0	0.0	0	0.0	395	0.1	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	395	0.1	0	0.0
Total sport ducks		435 898	93.0	425 326	95.2	408 266	93.9	437 536	95.6
Oldsquaw	1	2 210	0.6	870	0.2	5 228	1.5	1 415	0.4
	2	3 437	3.7	1 455	1.8	853	0.9	392	0.4
	Total	5 647	1.2	1 325	0.3	6 081	1.4	1 807	0.4
Common Eider	1	849	0.2	0	0.0	772	0.2	439	0.1
	2	4 502	4.9	1 751	2.1	1 037	1.1	3 022	3.1
	Total	5 351	1.1	1 751	0.4	1 809	0.4	3 461	0.8
King Eider	1	208	0.1	0	0.0	0	0.0	0	0.0
	2	0	0.0	64	0.1	0	0.0		

Table 22 (concluded)
Estimated number of waterfowl harvested in Quebec, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Lesser Snow Goose (blue phase)	1	366	0.5	58	0.1	252	0.3	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	366	0.4	58	0.1	252	0.2	0	0.0
Greater Snow Goose	1	36 726	57.2	40 180	77.9	39 589	49.9	55 294	57.1
	2	859	5.3	2 684	20.2	1 717	7.8	4 892	22.6
	Total	37 586	37.4	42 864	66.1	41 306	40.7	60 186	50.8
White-fronted Goose	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0
Brant	1	801	1.2	0	0.0	0	0.0	0	0.0
	2	277	1.7	0	0.0	0	0.0	0	0.0
	Total	1 078	1.1	0	0.0	0	0.0	0	0.0
Total geese		100 543	100.0	64 839	100.0	101 420	100.0	118 402	100.0
Total waterfowl		569 424	—	511 752	—	536 311	—	575 840	—

^a Zonal percentages were calculated as (species / total ducks or total geese in zone) × 100; total percentages were calculated as (species / total ducks or total geese in province) × 100.

Table 23
Estimated number of waterfowl harvested in Ontario, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Common Merganser	1	0	0.0	409	0.3	607	0.3	576	0.3
	2	2 205	0.5	4 439	1.2	1 519	0.4	2 040	0.6
	3	924	0.8	185	0.1	443	0.3	564	0.4
	Total	3 129	0.4	5 033	0.8	2 569	0.4	3 180	0.5
Red-breasted Merganser	1	656	0.3	504	0.3	958	0.5	0	0.0
	2	166	0.0	548	0.1	490	0.1	392	0.1
	3	0	0.0	115	0.1	79	0.1	83	0.1
	Total	822	0.1	1 167	0.2	1 527	0.2	475	0.1
Hooded Merganser	1	487	0.2	363	0.2	442	0.2	1 703	0.8
	2	10 073	2.3	13 456	3.5	10 153	2.9	11 147	3.2
	3	2 999	2.5	3 362	2.7	2 451	1.8	3 310	2.6
	Total	13 559	1.8	17 181	2.6	13 046	1.9	16 160	2.4
Mallard	1	112 828	53.1	76 453	48.6	92 048	47.9	96 222	45.6
	2	167 331	38.1	116 431	30.6	112 290	31.9	117 548	34.0
	3	38 922	32.4	40 809	33.0	57 748	42.2	48 454	37.7
	Total	319 081	41.3	233 693	35.3	262 086	38.5	262 224	38.3
American Black Duck	1	19 549	9.2	11 959	7.6	10 900	5.7	11 934	5.7
	2	26 762	6.1	29 142	7.7	21 677	6.2	14 270	4.1
	3	16 095	13.4	18 661	15.1	15 434	11.3	12 285	9.6
	Total	62 406	8.1	59 762	9.0	48 011	7.0	38 489	5.6
Gadwall	1	655	0.3	894	0.6	2 119	1.1	1 498	0.7
	2	994	0.2	1 352	0.4	454	0.1	434	0.1
	3	78	0.1	188	0.1	499	0.4	498	0.4
	Total	1 727	0.2	2 434	0.4	3 072	0.5	2 430	0.4
American Wigeon	1	4 457	2.1	2 883	1.8	5 480	2.9	9 947	4.7
	2	4 459	1.0	4 311	1.1	3 690	1.1	3 288	1.0
	3	1 984	1.7	1 830	1.5	3 158	2.3	1 942	1.5
	Total	10 900	1.4	9 024	1.4	12 328	1.8	15 177	2.2
Eurasian Green-winged Teal	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	77	0.0	0	0.0
	3	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	77	0.0	0	0.0
American Green-winged Teal	1	8 843	4.2	8 898	5.7	11 222	5.8	16 220	7.7
	2	17 357	3.9	17 312	4.6	22 435	6.4	17 099	5.0
	3	5 900	4.9	10 365	8.4	7 649	5.6	6 387	5.0
	Total	32 100	4.2	36 575	5.5	41 306	6.1	39 706	5.8
Blue-winged Teal	1	2 814	1.3	648	0.4	3 895	2.0	4 776	2.3
	2	14 783	3.4	12 826	3.4	9 938	2.8	10 466	3.0
	3	3 334	2.8	4 702	3.8	4 652	3.4	4 361	3.4
	Total	20 931	2.7	18 176	2.7	18 485	2.7	19 603	2.9
Northern Shoveler	1	207	0.1	1 095	0.7	702	0.4	561	0.3
	2	559	0.1	956	0.3	413	0.1	894	0.3
	3	422	0.4	338	0.3	327	0.2	83	0.1
	Total	1 188	0.2	2 389	0.4	1 442	0.2	1 538	0.2
Northern Pintail	1	3 485	1.6	3 557	2.3	4 785	2.5	4 217	2.0
	2	2 004	0.5	2 697	0.7	4 237	1.2	2 418	0.7
	3	775	0.6	1 784	1.4	2 582	1.9	1 298	1.0
	Total	6 264	0.8	8 038	1.2	11 604	1.7	7 933	1.2
Wood Duck	1	17 151	8.1	20 495	13.0	21 996	11.5	24 274	11.5
	2	92 843	21.1	70 043	18.4	69 056	19.6	77 412	22.4
	3	7 846	6.5	9 157	7.4	10 547	7.7	9 527	7.4
	Total	117 840	15.3	99 695	15.1	101 599	14.9	111 213	16.2

(continued)

Table 23 (*continued*)

Estimated number of waterfowl harvested in Ontario, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Redhead	1	5 365	2.5	2 508	1.6	1 801	0.9	4 446	2.1
	2	4 200	1.0	2 020	0.5	394	0.1	992	0.3
	3	839	0.7	0	0.0	172	0.1	294	0.2
	Total	10 404	1.3	4 528	0.7	2 367	0.3	5 732	0.8
Canvasback	1	4 066	1.9	2 127	1.4	2 656	1.4	4 822	2.3
	2	2 128	0.5	88	0.2	344	0.1	599	0.2
	3	117	0.1	0	0.0	183	0.1	401	0.3
	Total	6 311	0.8	2 215	0.3	3 183	0.5	5 822	0.9
Greater Scaup	1	3 944	1.9	6 634	4.2	6 996	3.6	4 163	2.0
	2	8 437	1.9	5 427	1.4	7 222	2.1	6 700	1.9
	3	531	0.4	948	0.8	880	0.6	587	0.5
	Total	12 912	1.7	13 009	2.0	15 098	2.2	11 450	1.7
Lesser Scaup	1	6 141	2.9	8 343	5.3	11 115	5.8	8 476	4.0
	2	20 159	4.6	15 473	4.1	22 645	6.4	9 937	2.9
	3	8 850	7.4	7 875	6.4	6 291	4.6	6 884	5.4
	Total	35 150	4.6	31 691	4.8	40 051	5.9	25 297	3.7
Ring-necked Duck	1	4 621	2.2	1 545	1.0	2 951	1.5	9 830	4.7
	2	28 435	6.5	34 926	9.2	26 379	7.5	31 175	9.0
	3	20 407	17.0	12 143	9.8	13 568	9.9	20 791	16.2
	Total	53 463	6.9	48 614	7.4	42 898	6.3	61 796	9.0
Common Goldeneye	1	3 058	1.4	2 091	1.3	3 065	1.6	1 067	0.5
	2	20 319	4.6	27 234	7.2	23 081	6.6	25 187	7.3
	3	5 772	4.8	7 856	6.4	7 173	5.2	6 665	5.2
	Total	29 149	3.8	37 181	5.6	33 319	4.9	32 919	4.8
Barrow's Goldeneye	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	209	0.0	0	0.0	172	0.1	0	0.0
	3	0	0.0	0	0.0	86	0.1	0	0.0
	Total	209	0.0	0	0.0	258	0.1	0	0.0
Bufflehead	1	12 329	5.8	5 247	3.3	7 296	3.8	5 142	2.4
	2	9 590	2.2	16 783	4.4	10 779	3.1	9 116	2.6
	3	3 436	2.9	2 358	1.9	2 267	1.7	3 597	2.8
	Total	25 355	3.3	24 388	3.7	20 342	3.0	17 855	2.6
Ruddy Duck	1	207	0.1	347	0.2	549	0.3	459	0.2
	2	0	0.0	0	0.0	0	0.0	137	0.1
	3	0	0.0	0	0.0	0	0.0	0	0.0
	Total	207	0.0	347	0.0	549	0.1	596	0.1
Total sport ducks		763 107	98.8	655 144	99.1	675 217	99.1	679 595	99.3
Oldsquaw	1	384	0.2	0	0.0	0	0.0	0	0.0
	2	1 875	0.4	2 139	0.6	167	0.1	1 474	0.4
	3	0	0.0	115	0.1	266	0.2	106	0.1
	Total	2 259	0.3	2 254	0.3	433	0.1	1 580	0.2
Harlequin Duck	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	739	0.2	156	0.1	0	0.0
	3	536	0.4	419	0.3	142	0.1	0	0.0
	Total	536	0.1	1 158	0.2	298	0.1	0	0.0
Common Eider	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	3	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0
King Eider	1	0	0.0	0	0.0	0	0.0	133	0.1
	2	0	0.0	0	0.0	0	0.0	0	0.0
	3	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	133	0.1

Table 23 (concluded)

Table 25 (continued)
Estimated number of waterfowl harvested in Ontario, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Black Scoter	1	103	0.0	113	0.1	0	0.0	217	0.1
	2	619	0.1	602	0.2	654	0.2	1 010	0.3
	3	110	0.1	0	0.0	0	0.0	214	0.2
	Total	832	0.1	715	0.1	654	0.1	1 441	0.2
White-winged Scoter	1	682	0.3	226	0.1	0	0.0	0	0.0
	2	2 516	0.6	938	0.3	1 653	0.5	811	0.2
	3	453	0.4	224	0.2	106	0.1	0	0.0
	Total	3 651	0.5	1 388	0.2	1 759	0.3	811	0.1
Surf Scoter	1	550	0.3	0	0.0	456	0.2	159	0.1
	2	1 156	0.3	343	0.1	2 067	0.6	827	0.2
	3	333	0.3	303	0.2	186	0.1	144	0.1
	Total	2 039	0.3	646	0.1	2 709	0.4	1 130	0.2
Total sea ducks		9 317	1.2	6 161	0.9	5 853	0.9	5 095	0.7
Total ducks		772 424	100.0	661 305	100.0	681 070	100.0	684 690	100.0
Canada Goose	1	39 018	100.0	28 573	98.8	43 247	98.2	42 746	98.7
	2	35 922	97.3	29 283	99.5	34 495	96.9	40 680	97.8
	3	16 995	80.5	21 544	92.1	27 482	88.0	16 752	92.2
	Total	91 935	94.7	79 400	97.1	105 224	94.5	100 178	97.2
Small Canada Goose	1	—	—	—	—	—	—	0	0.0
	2	—	—	—	—	—	—	325	0.8
	3	—	—	—	—	—	—	0	0.0
	Total	—	—	—	—	—	—	325	0.3
Large Canada Goose	1	—	—	—	—	—	—	107	0.3
	2	—	—	—	—	—	—	103	0.3
	3	—	—	—	—	—	—	0	0.0
	Total	—	—	—	—	—	—	210	0.2
Lesser Snow Goose (white phase)	1	0	0.0	79	0.3	694	1.6	167	0.4
	2	688	1.9	0	0.0	747	2.1	403	1.0
	3	4 110	19.5	1 116	4.8	3 100	9.9	985	5.4
	Total	4 798	4.9	1 195	1.5	4 541	4.1	1 555	1.5
Lesser Snow Goose (blue phase)	1	0	0.0	95	0.3	0	0.0	107	0.3
	2	321	0.9	96	0.3	375	1.1	0	0.0
	3	0	0.0	653	2.8	431	1.4	437	2.4
	Total	321	0.3	844	1.0	806	0.7	544	0.5
Greater Snow Goose	1	0	0.0	0	0.0	111	0.3	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	3	0	0.0	0	0.0	173	0.6	0	0.0
	Total	0	0.0	0	0.0	284	0.3	0	0.0
White-fronted Goose	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	3	0	0.0	0	0.0	34	0.1	0	0.0
	Total	0	0.0	0	0.0	34	0.1	0	0.0
Brant	1	0	0.0	174	0.6	0	0.0	167	0.4
	2	0	0.0	66	0.2	0	0.0	98	0.2
	3	0	0.0	79	0.3	0	0.0	0	0.0
	Total	0	0.0	319	0.4	0	0.0	265	0.3
Total geese		97 054	100.0	81 760	100.0	110 889	100.0	103 077	100.0

^a Zonal percentages were calculated as (species / total ducks or total geese in zone) × 100; total percentages were calculated as (species / total ducks or total geese in province) × 100.

Table 24
Estimated number of waterfowl harvested in Manitoba, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Common Merganser	1	86	0.1	0	0.0	0	0.0	0	0.0
	2	703	1.0	0	0.0	0	0.0	0	0.0
	Total	789	0.4	0	0.0	0	0.0	0	0.0
Hooded Merganser	1	198	0.1	0	0.0	400	0.5	0	0.0
	2	0	0.0	144	0.3	0	0.0	0	0.0
	Total	198	0.1	144	0.1	400	0.3	0	0.0
Mallard	1	90 036	61.6	36 695	46.3	39 092	50.9	33 733	45.8
	2	46 922	70.0	23 121	49.5	29 190	65.4	22 479	58.7
	Total	136 958	64.2	59 816	47.5	68 282	56.2	56 212	50.2
American Black Duck	1	0	0.0	0	0.0	166	0.2	0	0.0
	2	0	0.0	0	0.0	0	0.0	70	0.2
	Total	0	0.0	0	0.0	166	0.1	70	0.1
Gadwall	1	6 391	4.4	2 299	2.9	5 261	6.9	3 223	4.4
	2	0	0.0	432	0.9	1 725	3.9	1 021	2.7
	Total	6 391	3.0	2 731	2.2	6 986	5.8	4 244	3.8
American Wigeon	1	6 106	4.2	3 614	4.6	3 382	4.4	1 900	2.6
	2	2 295	3.4	989	2.1	3 247	7.3	107	0.3
	Total	8 401	3.9	4 603	3.7	6 629	5.5	2 007	1.8
American Green-winged Teal	1	6 923	4.7	8 153	10.3	4 908	6.4	4 089	5.6
	2	2 919	4.4	2 593	5.6	2 172	4.9	6 758	17.7
	Total	9 842	4.6	10 746	8.5	7 080	5.8	10 847	9.7
Blue-winged Teal	1	3 285	2.2	9 802	12.4	2 793	3.6	968	1.3
	2	1 865	2.8	1 609	3.4	1 976	4.4	958	2.5
	Total	5 150	2.4	11 411	9.1	4 769	3.9	1 926	1.7
Northern Shoveler	1	2 931	2.0	4 721	6.0	2 184	2.8	3 365	4.6
	2	0	0.0	2 017	4.3	2 377	5.3	551	1.4
	Total	2 931	1.4	6 738	5.4	4 561	3.8	3 916	3.5
Northern Pintail	1	3 027	2.1	6 202	7.8	6 484	8.4	3 580	4.9
	2	2 376	3.5	7 797	16.7	1 225	2.8	2 162	5.7
	Total	5 403	2.5	13 999	11.1	7 709	6.3	5 742	5.1
Wood Duck	1	633	0.4	0	0.0	609	0.8	463	0.6
	2	270	0.4	241	0.5	844	1.9	338	0.9
	Total	903	0.4	241	0.2	1 453	1.2	801	0.7
Redhead	1	4 497	3.1	893	1.1	1 122	1.5	4 685	6.4
	2	351	0.5	507	1.1	0	0.0	973	2.5
	Total	4 848	2.3	1 400	1.1	1 122	0.9	5 658	5.1
Canvasback	1	1 434	1.0	724	0.9	856	1.1	1 181	1.6
	2	892	1.3	2 630	5.6	783	1.8	623	1.6
	Total	2 326	1.1	3 354	2.7	1 639	1.3	1 804	1.6
Greater Scaup	1	804	0.6	0	0.0	0	0.0	361	0.5
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	804	0.4	0	0.0	0	0.0	361	0.3
Lesser Scaup	1	9 449	6.5	3 927	4.9	6 312	8.2	6 523	8.9
	2	1 779	2.7	3 143	6.7	802	1.8	162	0.4
	Total	11 228	5.3	7 070	5.6	7 114	5.9	6 685	6.0

(continued)

Table 24 (continued)
Estimated number of waterfowl harvested in Manitoba, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a	Harvest	% ^a	Harvest	% ^a	Harvest	% ^a
Ring-necked Duck	1	6 921	4.7	676	0.9	1 774	2.3	4 854	6.6
	2	4 631	6.9	1 315	2.8	0	0.0	800	2.1
	Total	11 552	5.4	1 991	1.6	1 774	1.5	5 654	5.1
Common Goldeneye	1	1 558	1.1	0	0.0	500	0.7	1 927	2.6
	2	270	0.4	97	0.2	278	0.6	118	0.3
	Total	1 828	0.9	97	0.0	778	0.6	2 045	1.8
Bufflehead	1	1 698	1.2	1 337	1.7	957	1.3	1 840	2.5
	2	435	0.6	0	0.0	0	0.0	59	0.2
	Total	2 133	1.0	1 337	1.1	957	0.8	1 899	1.7
Ruddy Duck	1	86	0.1	192	0.2	0	0.0	0	0.0
	2	0	0.0	97	0.2	0	0.0	0	0.0
	Total	86	0.0	289	0.2	0	0.0	0	0.0
Total sport ducks		211 771	99.3	125 969	100.0	121 419	100.0	109 871	98.2
Common Eider	1	86	0.1	0	0.0	0	0.0	0	0.0
	2	270	0.4	0	0.0	0	0.0	0	0.0
	Total	356	0.2	0	0.0	0	0.0	0	0.0
Black Scoter	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	1 074	1.6	0	0.0	0	0.0	0	0.0
	Total	1 074	0.5	0	0.0	0	0.0	0	0.0
White-winged Scoter	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	1 085	2.8
Surf Scoter	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	912	1.2
Total sea ducks		1 430	0.7	0	0.0	0	0.0	0	0.0
Total ducks		213 201	100.0	125 969	100.0	121 419	100.0	111 868	100.0
Canada Goose	1	2 513	1.7	4 218	4.3	3 482	2.7	5 045	5.4
	2	0	0.0	1 983	6.5	2 602</td			

Table 24 (continued)
Estimated number of waterfowl harvested in Manitoba, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Ross' Goose	1	3 429	2.3	665	0.7	203	0.2	0	0.0
	2	0	0.0	432	1.4	133	0.3	105	0.3
	Total	3 429	1.6	1 097	0.8	336	0.2	105	0.1
White-fronted Goose	1	119	0.1	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	145	0.3	105	0.3
	Total	119	0.1	0	0.0	145	0.1	105	0.1
Total geese		154 935	100.0	129 089	100.0	170 334	100.0	127 185	100.0
Total waterfowl		368 136	—	255 058	—	291 753	—	239 053	—

^a Zonal percentages were calculated as (species / total ducks or total geese in zone) × 100; total percentages were calculated as (species / total ducks or total geese in province) × 100.

Table 25
Estimated number of waterfowl harvested in Saskatchewan, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Hooded Merganser	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	367	1.0	0	0.0
	3	0	0.0	0	0.0	0	0.0	206	0.4
Mallard	Total	0	0.0	0	0.0	367	0.4	206	0.2
	1	55 589	81.9	20 023	66.0	24 027	65.4	27 043	76.9
	2	47 758	78.9	27 813	66.6	23 812	66.6	22 260	64.6
American Black Duck	3	60 252	76.5	25 683	78.6	26 943	85.2	31 576	68.2
	Total	163 599	79.0	73 519	70.2	74 782	71.8	80 879	69.8
	1	0	0.0	0	0.0	0	0.0	0	0.0
Gadwall	2	0	0.0	0	0.0	0	0.0	0	0.0
	3	0	0.0	122	0.4	0	0.0	757	1.6
	Total	0	0.0	122	0.1	0	0.0	757	0.7
American Wigeon	1	967	1.4	1 145	3.8	3 010	8.2	1 222	3.5
	2	2 802	4.6	500	1.2	1 695	4.7	1 260	3.7
	3	3 520	4.5	2 734	8.4	748	2.4	1 487	3.2
American Green-winged Teal	Total	7 289	3.5	4 379	4.2	5 453	5.2	3 969	3.4
	1	1 908	2.8	1 664	5.5	900	2.5	697	2.0
	2	878	1.5	370	0.9	1 465	4.1	520	1.5
Blue-winged Teal	3	1 547	2.0	2 064	6.3	916	2.9	167	0.4
	Total	4 333	2.1	4 098	3.9	3 281	3.2	1 384	1.2
	1	131	0.2	347	1.1	937	2.6	0	0.0
Northern Shoveler	2	1 175	1.9	1 602	3.8	1 668	4.7	1 474	4.3
	3	835	1.1	0	0.0	603	1.9	459	1.0
	Total	2 141	1.0	1 949	1.9	3 208	3.1	1 933	1.7
Northern Pintail	1	2 597	3.8	3 045	10.0	2 089	5.7	3 317	9.4
	2	2 281	3.8	2 774	6.6	1 815	5.1	2 569	7.5
	3	3 899	4.9	175	0.5	1 176	3.7	4 420	9.5
Total	Total	8 777	4.2	5 994	5.7	5 080	4.9	10 306	8.9

Table 25 (continued)
Estimated number of waterfowl harvested in Saskatchewan, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Redhead	1	779	1.1	130	0.4	451	1.2	0	0.0
	2	0	0.0	0	0.0	248	0.7	394	1.1
	3	1 684	2.1	924	2.8	0	0.0	805	1.7
Canvasback	Total	2 463	1.2	1 054	1.0	699	0.7	1 199	1.0
	1	0	0.0	621	2.0	174	0.5	195	0.6
	2	563	0.9	1 313	3.1	74	0.2	167	0.5
Greater Scaup	3	0	0.0	175	0.5	0	0.0	125	0.3
	Total	563	0.3	2 109	2.0	248	0.2	487	0.4
	1	0	0.0	0	0.0	0	0.0	0	0.0
Lesser Scaup	2	149	0.2	0	0.0	0	0.0	0	0.0
	3	0	0.0	0	0.0	0	0.0	0	0.0
	Total	149	0.1	0	0.0	0	0.0	0	0.0
Ring-necked Duck	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	225	0.4	0	0.0	0	0.0	573	1.7
	3	0	0.0	0	0.0	0	0.0	0	0.0
Common Goldeneye	Total	225	0.1	0	0.0	0	0.0	573	0.5
	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	562	1.6	0	0.0
Bufflehead	3	0	0.0	367	1.1	0	0.0	428	0.9
	Total	0	0.0	367	0.4	562	0.5	428	0.4
	1	0	0.0	313	1.0	0	0.0	0	0.0
Ruddy Duck	2	374	0.6	0	0.0	195	0.5	787	2.3
	3	0	0.0	0	0.0	118	0.4	0	0.0
	Total	374	0.2	313	0.3	313	0.3	787	0.7
Total sport ducks	1	207 067	99.9	104 776	100.0	104 134	100.0	115 937	100.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	3	0	0.0	0	0.0	0	0.0	0	0.0
White-winged Scoter	Total	0	0.0	0	0.0	0	0.0	0	0.0
	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
Surf Scoter									

Table 25 (concluded)
Estimated number of waterfowl harvested in Saskatchewan, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Canada Goose	1	2 854	3.4	421	0.7	969	1.3	1 338	2.0
	2	214	0.6	1 441	5.9	379	1.2	67	0.2
	3	836	1.5	277	0.6	1 851	4.1	504	0.9
	Total	3 904	2.2	2 139	1.7	3 199	2.1	1 909	1.2
Small Canada Goose	1	17 677	20.8	14 545	25.2	17 770	24.5	15 193	23.0
	2	3 518	10.6	1 433	5.9	1 784	5.6	3 947	10.8
	3	10 651	19.0	6 101	14.1	7 017	15.5	8 450	14.3
	Total	31 846	18.3	22 079	17.6	26 571	17.7	27 590	17.1
Large Canada Goose	1	23 793	27.9	9 789	16.9	14 276	19.7	16 708	25.3
	2	22 026	66.5	19 888	81.3	21 550	67.5	23 736	65.1
	3	26 109	46.6	25 993	60.2	20 138	44.5	25 412	43.1
	Total	71 928	41.3	55 670	44.4	55 964	37.4	65 856	40.7
Lesser Snow Goose (white phase)	1	8 647	10.2	12 251	21.2	12 912	17.8	11 503	17.4
	2	259	0.8	771	3.2	1 092	3.4	2 778	7.6
	3	11 389	20.3	7 157	16.8	8 607	19.0	13 760	23.3
	Total	20 295	11.6	20 179	16.1	22 611	15.1	28 041	17.3
Lesser Snow Goose (blue phase)	1	2 015	2.4	1 259	2.2	611	0.8	924	1.4
	2	0	0.0	0	0.0	0	0.0	0	0.0
	3	2 536	4.5	2 296	5.3	2 352	5.2	4 401	7.5
	Total	4 551	2.6	3 555	2.8	2 963	2.0	5 325	3.3
Greater Snow Goose	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	3	0	0.0	85	0.2	0	0.0	0	0.0
	Total	0	0.0	85	0.0	0	0.0	0	0.0
Ross' Goose	1	1 297	1.5	1 324	2.3	2 554	3.5	3 820	5.8
	2	274	0.8	0	0.0	0	0.0	224	0.6
	3	106	0.2	0	0.0	359	0.8	1 580	2.7
	Total	1 677	1.0	1 324	1.1	2 913	1.9	5 624	3.5
White-fronted Goose	1	28 889	33.9	18 189	31.5	23 507	32.4	16 642	25.2
	2	6 843	20.7	917	3.8	7 101	22.3	5 732	15.7
	3	4 391	7.8	1 263	2.9	4 973	11.0	4 924	8.3
	Total	40 123	23.0	20 369	16.2	35 581	23.8	27 298	16.9
Brant	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	3	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0
Total geese		174 324	100.0	125 398	100.0	149 802	100.0	161 643	100.0
Total waterfowl		381 540	—	230 174	—	253 936	—	277 580	—

^a Zonal percentages were calculated as (species / total ducks or total geese in zone) × 100; total percentages were calculated as (species / total ducks or total geese in province) × 100.

Table 26
Estimated number of waterfowl harvested in Alberta, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Common Merganser	1	0	0.0	193	0.3	149	0.2	0	0.0
	2	0	0.0	0	0.0	0	0.0	366	0.3
	Total	0	0.0	193	0.1	149	0.1	366	0.2
Hooded Merganser	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	178	0.1	0	0.0	0	0.0	0	0.0
	Total	178	0.1	0	0.0	0	0.0	0	0.0
Mallard	1	79 605	71.5	47 733	72.1	53 691	63.2	60 805	73.7
	2	135 674	70.0	90 282	77.2	132 942	78.2	114 464	76.8
	Total	215 279	70.5	138 015	75.4	186 633	73.2	175 269	75.7
American Black Duck	1	0	0.0	98	0.2	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	270	0.2
	Total	0	0.0	98	0.0	0	0.0	270	0.1
Gadwall	1	4 723	4.2	3 272	4.9	6 823	8.0	4 886	5.9
	2	14 877	7.7	4 851	4.2	8 615	5.1	8 322	5.6
	Total	19 600	6.4	8 123	4.4	15 438	6.1	13 208	5.7
American Wigeon	1	6 486	5.8	4 059	6.1	4 557	5.4	2 769	3.4
	2	5 502	2.8	3 812	3.3	5 373	3.2	2 960	2.0
	Total	11 988	3.9	7 871	4.3	9 930	3.9	5 729	2.5
American Green-winged Teal	1	5 012	4.5	1 375	2.1	4 912	5.8	2 101	2.6
	2	5 300	2.7	1 457	1.3	3 734	2.2	2 675	1.8
	Total	10 312	3.4	2 832	1.6	8 646	3.4	4 776	2.1
Blue-winged Teal	1	1 670	1.5	1 255	1.9	3 101	3.7	1 965	2.4
	2	4 278	2.2	675	0.6	5 415	3.2	1 490	1.0
	Total	5 948	1.9	1 930	1.1	8 516	3.3	3 455	1.5
Northern Shoveler	1	1 730	1.6	1 278	1.9	2 733	3.2	1 334	1.6
	2	5 249	2.7	1 456	1.3	5 262	3.1	2 606	1.8
	Total	6 979	2.3	2 734	1.5	7 995	3.1	3 940	1.7
Northern Pintail	1	8 559	7.7	5 432	8.2	6 091	7.2	5 536	6.7
	2	12 619	6.5	9 871	8.4	5 862	3.5	7 944	5.3
	Total	21 178	6.9	15 303	8.4	11 953	4.7	13 480	5.8
Wood Duck	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0
Redhead	1	1 316	1.2	532	0.8	967	1.1	1 808	2.2
	2	2 496	0.8	142	0.1	228	0.1	1 920	1.3
	Total	3 812	1.2	674	0.4	1			

Table 26 (concluded)
Estimated number of waterfowl harvested in Alberta, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Common Goldeneye	1	335	0.3	0	0.0	97	0.1	107	0.1
	2	1 710	0.9	0	0.0	0	0.0	438	0.3
	Total	2 045	0.7	0	0.0	97	0.1	545	0.2
Barrow's Goldeneye	1	117	0.1	98	0.1	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	117	0.0	98	0.0	0	0.0	0	0.0
Bufflehead	1	117	0.1	65	0.1	0	0.0	471	0.6
	2	305	0.2	675	0.6	0	0.0	0	0.0
	Total	422	0.1	740	0.4	0	0.0	471	0.2
Ruddy Duck	1	224	0.2	0	0.0	0	0.0	81	0.1
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	224	0.1	0	0.0	0	0.0	81	0.1
Total sport ducks		305 207	100.0	183 145	100.0	255 030	100.0	231 665	100.0
White-winged Scoter	1	117	0.1	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	117	0.0	0	0.0	0	0.0	0	0.0
Surf Scoter	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0
Total sea ducks		117	0.0	0	0.0	0	0.0	0	0.0
Total ducks		305 324	100.0	183 145	100.0	255 030	100.0	231 665	100.0
Canada Goose	1	836	1.3	6 247	12.0	796	1.1	1 539	2.7
	2	1 929	2.4	19 322	24.5	381	0.5	1 166	1.2
	Total	2 765	1.9	25 569	19.5	1 177	0.8	2 705	1.7
Small Canada Goose	1	11 429	18.0	7 998	15.4	15 642	21.3	8 724	15.1
	2	25 826	31.9	10 340	13.1	22 628	28.1	19 900	20.2
	Total	37 255	25.8	18 338	14.0	38 270	24.9	28 624	18.3
Large Canada Goose	1	40 574	63.8	23 138	44.4	40 740	55.5	37 641	65.1
	2	45 615	56.3	32 596	41.3	42 752	53.1	56 100	56.9
	Total	86 189	59.6	55 734	42.5	83 492	54.3	93 741	59.9
Lesser Snow Goose (white phase)	1	3 026	4.8	3 293	6.3	5 038	6.9	2 872	5.0
	2	1 213	1.5	5 932	7.5	5 430	6.7	6 473	6.6
	Total	4 239	2.9	9 225	7.0	10 468	6.8	9 345	6.0
Lesser Snow Goose (blue phase)	1	0	0.0	82	0.2	0	0.0	111	0.2
	2	384	0.5	130	0.2	116	0.1	253	0.3
	Total	384	0.3	212	0.2	116	0.1	364	0.2
Greater Snow Goose	1	0	0.0	0	0.0	0	0.0	157	0.3
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	157	0.1
Ross' Goose	1	220	0.3	1 487	2.9	1 194	1.6	533	0.9
	2	158	0.2	732	0.9	447	0.6	2 583	2.6
	Total	378	0.3	2 219	1.7	1 641	1.1	3 116	2.0
White-fronted Goose	1	7 474	11.8	9 863	18.9	9 957	13.6	6 208	10.7
	2	5 943	7.3	9 840	12.5	8 758	10.9	12 157	12.3
	Total	13 417	9.3	19 703	15.0	18 715	12.2	18 365	11.8
Total geese		144 627	100.0	131 001	100.0	153 879	100.0	156 417	100.0
Total waterfowl		449 951	—	314 146	—	408 909	—	388 082	—

^a Zonal percentages were calculated as (species / total ducks or total geese in zone) × 100; total percentages were calculated as (species / total ducks or total geese in province) × 100.

Table 27
Estimated number of waterfowl harvested in British Columbia, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Common Merganser	1	213	0.4	186	0.5	0	0.0	0	0.0
	2	59	0.1	69	0.1	0	0.0	0	0.0
	Total	272	0.2	255	0.2	0	0.0	0	0.0
Red-breasted Merganser	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	27	0.0	0	0.0	0	0.0
	Total	0	0.0	27	0.0	0	0.0	0	0.0
Hooded Merganser	1	246	0.5	363	0.9	0	0.0	45	0.1
	2	158	0.2	70	0.1	194	0.3	0	0.0
	Total	404	0.3	433	0.4	194	0.2	45	0.1
Mallard	1	33 702	62.0	24 396	59.7	22 622	65.5	22 636	63.2
	2	44 586	56.7	39 628	53.1	34 521	51.9	37 036	61.9
	Total	78 288	58.9	64 024	55.4	57 143	56.5	59 672	62.4
American Black Duck	1	0	0.0	0	0.0	0	0.0	47	0.1
	2	0	0.0	0	0.0	0	0.0	64	0.1
	Total	0	0.0	0	0.0	0	0.0	111	0.1
Gadwall	1	767	1.4	819	2.0	376	1.1	422	1.2
	2	455	0.6	1 717	2.3	1 139	1.7	1 588	2.7
	Total	1 222	0.9	2 536	2.2	1 515	1.5	2 010	2.1
American Wigeon	1	4 481	8.3	4 812	11.8	3 157	9.1	3 504	9.8
	2	11 112	14.1	10 416	14.0	10 549	15.9	8 668	14.5
	Total	15 593	11.7	15 228	13.2	13 706	13.6	12 172	12.7
American Green-winged Teal	1	2 217	4.1	2 267	5.5	2 574	7.5	2 210	6.2
	2	7 548	9.6	9 172	12.3	10 215	15.4	5 675	9.5
	Total	9 765	7.3	11 439	9.9	12 789	12.7	7 885	8.2
Blue-winged Teal	1	1 506	2.8	830	2.0	905	2.6	1 404	3.9
	2	34	0.0	219	0.3	0	0.0		

Table 27 (continued)

Estimated number of waterfowl harvested in British Columbia, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Common Goldeneye	1	1 338	2.5	785	1.9	373	1.1	400	1.1
	2	517	0.7	436	0.6	233	0.4	0	0.0
	Total	1 855	1.4	1 221	1.1	606	0.6	400	0.4
Barrow's Goldeneye	1	1 122	2.1	928	2.3	1 350	3.9	469	1.3
	2	280	0.4	0	0.0	43	0.1	0	0.0
	Total	1 402	1.1	928	0.8	1 393	1.4	469	0.5
Bufflehead	1	1 879	3.5	1 172	2.9	470	1.4	864	2.4
	2	2 209	2.8	871	1.2	169	0.3	0	0.0
	Total	4 088	3.1	2 043	1.8	639	0.6	864	0.9
Ruddy Duck	1	140	0.3	0	0.0	0	0.0	74	0.2
	2	558	0.7	0	0.0	0	0.0	0	0.0
	Total	698	0.5	0	0.0	0	0.0	74	0.1
Total sport ducks		132 499	99.6	115 350	99.8	101 042	99.9	95 624	99.9
Oldsquaw	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	135	0.2	0	0.0	0	0.0
	Total	0	0.0	135	0.1	0	0.0	0	0.0
Harlequin Duck	1	43	0.1	0	0.0	0	0.0	0	0.0
	2	63	0.1	0	0.0	0	0.0	0	0.0
	Total	106	0.1	0	0.0	0	0.0	0	0.0
King Eider	1	0	0.0	0	0.0	0	0.0	47	0.1
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	47	0.1
Black Scoter	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	55	0.1	0	0.0	0	0.0
	Total	0	0.0	55	0.0	0	0.0	0	0.0
White-winged Scoter	1	90	0.2	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	90	0.1	0	0.0	0	0.0	0	0.0
Surf Scoter	1	50	0.1	0	0.0	34	0.1	0	0.0
	2	242	0.3	0	0.0	0	0.0	0	0.0
	Total	292	0.2	0	0.0	34	0.1	0	0.0
Total sea ducks		488	0.4	190	0.2	34	0.1	47	0.1
Total ducks		132 987	100.0	115 540	100.0	101 076	100.0	95 671	100.0
Canada Goose	1	369	4.1	5 364	60.2	178	1.6	131	1.2
	2	988	10.9	4 744	50.7	37	0.5	123	2.6
	Total	1 357	7.5	10 108	55.3	215	1.2	254	1.6
Small Canada Goose	1	1 414	15.8	629	7.1	2 845	26.2	2 311	21.3
	2	468	5.2	91	0.1	997	14.3	438	9.3
	Total	1 882	10.5	720	3.9	3 842	21.5	2 749	17.7
Large Canada Goose	1	7 096	79.5	2 894	32.5	7 785	71.8	8 334	76.8
	2	5 559	61.2	2 354	25.2	5 427	77.5	3 956	84.0
	Total	12 655	70.3	5 248	28.7	13 212	74.0	12 290	79.0
Lesser Snow Goose (white phase)	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	1 993	22.0	2 091	22.3	521	7.4	121	2.6
	Total	1 993	11.1	2 091	11.4	521	2.9	121	0.8
White-fronted Goose	1	46	0.5	0	0.0	34	0.3	74	0.7
	2	69	0.8	81	0.9	19	0.3	70	1.5
	Total	115	0.6	81	0.4	53	0.3	144	0.9

(continued)

Table 27 (concluded)

Estimated number of waterfowl harvested in British Columbia, 1987-90

Species	Zone	1987		1988		1989		1990	
		Harvest	% ^a						
Brant	1	0	0.0	0	0.0	0	0.0	0	0.0
	2	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	0	0.0
Total geese		18 002	100.0	18 273	100.0	17 843	100.0	15 558	100.0
Total waterfowl		150 989	—	133 813	—	118 919	—	111 229	—
^a Zonal percentages were calculated as (species / total ducks or total geese in zone) × 100; total percentages were calculated as (species / total ducks or total geese in province) × 100.									
Species		1987		1988		1989		1990	
Common Merganser		0	0.0	0	0.0	0	0.0	0	0.0
Mallard		545	12.3	4 736	92.3	1 639	41.3	1 950	41.6
American Wigeon		0	0.0	0	0.0	0	0.0	987	21.1
American Green-winged Teal		0	0.0	0	0.0	159	4.0	247	5.3
Blue-winged Teal		0	0.0	0	0.0	58	1.5	0	0.0
Northern Shoveler		0	0.0	0	0.0	0	0.0	247	5.3
Northern Pintail		0	0.0	0	0.0	159	4.0	572	12.2
Canvasback		0	0.0	0	0.0	159	4.0	65	1.4
Lesser Scaup		0	0.0	396	7.7	235	5.9	390	8.3
Ring-necked Duck		637	14.4	0	0.0	471	11.9	0	0.0
Common Goldeneye		3 247	73.3	0	0.0	797	20.1	228	4.9
Bufflehead		0	0.0	0	0.0	0	0.0	0	0.0
Ruddy Duck		0	0.0	0	0.0	0	0.0	0	0.0
Total sport ducks		4 429	100.0	5 132	100.0	3 677	92.7	4 686	100.0
Common Eider		0	0.0	0	0.0	288	7.3	0	0.0
White-winged Scoter		0	0.0	0	0.0	0	0.0	0	0.0
Surf Scoter		0	0.0	0	0.0	0	0.0	0	0.0
Total sea ducks		0	0.0	0	0.0	288	7.3	0	0.0
Total ducks		4 429	100.0	5 132	100.0	3 965	100.0	4 686	100.0
Canada Goose		0	0.0	0	0.0	57	100.0	461	32.0
Small Canada Goose		0	0.0	0	0.0	0	0.0	109	7.6
Lesser Snow Goose (white phase)		0	0.0	0	0.0	0	0.0	652	45.3
White-fronted Goose		0							

Table 29
Estimated number of waterfowl harvested in the Yukon Territory, 1987-90

Species	1987		1988		1989		1990	
	Harvest	%	Harvest	%	Harvest	%	Harvest	%
Mallard	263	17.3	408	30.7	796	100.0	392	71.0
American Wigeon	0	0.0	348	26.2	0	0.0	80	14.5
American Green-winged Teal	340	22.4	0	0.0	0	0.0	0	0.0
Northern Shoveler	213	14.0	0	0.0	0	0.0	8	1.5
Northern Pintail	656	43.2	0	0.0	0	0.0	72	13.0
Canvasback	0	0.0	0	0.0	0	0.0	0	0.0
Greater Scaup	0	0.0	0	0.0	0	0.0	0	0.0
Lesser Scaup	33	2.2	0	0.0	0	0.0	0	0.0
Goldeneye ^a	6	0.4	16	1.2	0	0.0	0	0.0
Bufflehead	6	0.4	555	41.8	0	0.0	0	0.0
Total sport ducks	1 517	100.0	1 327	100.0	796	100.0	552	100.0
Black Scoter	0	0.0	0	0.0	0	0.0	0	0.0
Surf Scoter	0	0.0	0	0.0	0	0.0	0	0.0
Total sea ducks	0	0.0	0	0.0	0	0.0	0	0.0
Total ducks	1 517	100.0	1 327	100.0	796	100.0	552	100.0
Small Canada Goose	0	0.0	230	100.0	0	0.0	0	0.0
Large Canada Goose	0	0.0	0	0.0	0	0.0	0	0.0
Lesser Snow Goose (white phase)	0	0.0	0	0.0	0	0.0	417	100.0
White-fronted Goose	0	0.0	0	0.0	0	0.0	0	0.0
Total geese ^b	358	100.0	230	100.0	0	0.0	417	100.0
Total waterfowl	1 875	—	1 557	—	796	—	969	—

^a Includes Common Goldeneye and Barrow's Goldeneye kills.

^b In some years, geese were reported in the HQS as being harvested, but no parts were received in the SCS. The harvest could not be identified to the species level.

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