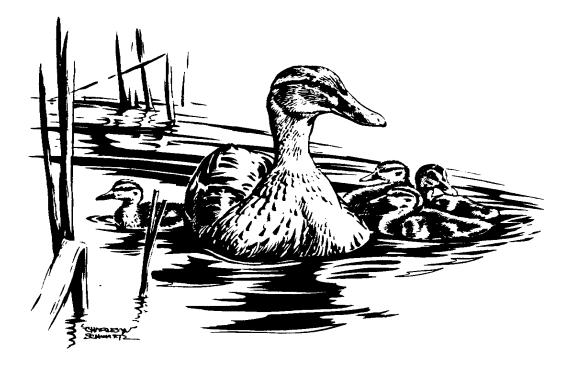
2004 PRAIRIE WATERFOWL STATUS REPORT



A Briefing Document

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INTRODUCTION

May pond estimates in the prairie provinces of western Canada of 2.513 million represented a 29% decrease from 2003. Pond numbers were 27% below the 10-year average, and 15% below the long-term average. This was in spite of a spring blizzard that saw significant amounts of snow fall on the southern part of the survey area on May 12-13.

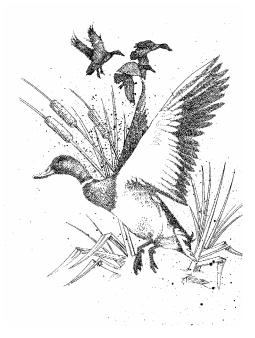
The mallard population estimate in southern prairie Canada decreased in 2004 to a value 20% below that of 2003 (2.603 million). The estimate is below the 10-year (-20%) and long-term averages (-27%). For prairie Canada as a whole mallard numbers in 2004 were below those for 2003 (-13%), and remain below the 10-year average (-21%), and long-term average (-26%).

Northern pintail numbers decreased in the southern strata but increased in the northern strata in 2004. Overall in prairie Canada there was a decrease when compared to 2003 (-40%). Estimates remained below the 10-year average (-25%) and the long-term averages (-65%).

Estimates for total ducks in prairie Canada decreased in 2004 compared to 2003 (-16%), as well as the 10-year average (-11%) and the long-term average (-20%).

Prairie Canada duck regulations are based on the Prairie Canada Mallard Harvest Strategy (PCMHS). The 2004 breeding population of 4.5 million estimated in the North American pothole region is still above the range requiring a traditional framework. Prairie Canada mallard harvest rate reductions were well in excess of the percentage required by the PCMHS. There was a decrease in the North American harvest of mallards in 2003. The continental population estimate decreased in 2004 when compared to 2003.

All jurisdictions are encouraged to continue to work towards improved populations through the various NAWMP initiatives.



SUMMARY OF RESULTS

1. Spring habitat conditions, as measured by the number of **MAY PONDS**, decreased in 2004 in Prairie Canada. There were 29% less May ponds in 2004 compared to 2003. There were 27% less May ponds in 2004 compared to the 10-year average, and 15% more compared to the long-term average (*Table 1; Figure 1*).

In southern Manitoba the 20043 May pond estimate of 541 thousand was 10% more than that recorded for 2003, but 14% less than the 10-year average and 9% less than the long-term average. In southern Saskatchewan, the 2004 May pond estimate of 1.5 million was 32% below that recorded for 2003, 30% less than the 10-year average, and 15% less than the long-term average. Water conditions were worse in southern Alberta in the spring of 2004 with 511 thousand ponds estimated. This represents an 43% decrease compared to 2003, a 27% decrease compared to the 10-year average, and a 15% decrease compared to the longterm average.

2. The 2004 TOTAL DUCK population decreased by 36% in southern Prairie Canada, but did not change (0%) in northern Prairie Canada compared to 2003 (*Table 1; Figures 2 and 3*). Total duck numbers are 30% lower than the 10-year average in southern Prairie Canada. In northern Prairie Canada, the population is 3% higher than the 10-year average. Total duck numbers were 35% lower and 12% less than the long-term average in southern and northern Prairie Canada, respectively.

In 2004, for northern and southern Prairie Canada combined, total duck numbers were 16% less than in 2003, 11% less than the 10-year average, and 20% less than the long-term average.

3. The **MALLARD** population estimate in southern Prairie Canada in 2004 was 20% less than in 2003, 20% less than the 10-year average, and 27% less than the long term average (*Table 1; Figure 1 and 4*). The mallard population estimate in northern Prairie Canada in 2004 increased slightly (+1%) from 2003, but remained below the 10-year average (-22%), and long-term average (-25%) (*Table 1; Figure 4*).

For Prairie Canada as a whole the 2004 mallard population estimate was 13% less than 2003, 21% lower than the 10-year average, and 26% less than the long-term average (Table 1).

4. NORTHERN PINTAIL numbers decreased in southern Prairie Canada in 2004 (*Table 2; Figure 5*) compared to 2003 (-47%). The numbers also remain below the 10-year average (-32%), and the long-term average (-68%). In northern Prairie Canada the northern pintail numbers increased in 2004 compared to 2003 (+16%). They were above the 10-year average (+15%), but remained below and the long-term average (-52%).

For northern and southern Prairie Canada combined the population estimate in 2004 was 40% less than in 2003, 25% less than the 10-year average, and 65% less than the long-term average (*Table 2*).

5. The SCAUP population in southern prairie Canada in 2004 was 28% lower than that of 2003, 51% lower than the 10-year average, and 63% lower than the long-term average (*Table 2*). In northern Prairie Canada the numbers increased compared to 2003 (+5%), as well as the 10-year average (+6%), but remained below the long-term average (-31%) (*Table 2; Figure 6*).

For northern and southern Prairie Canada combined the estimate for 2004 was 1% less than that for 2003, 8% less than the 10-year average, and 38% lower than the long-term average.

6. Numbers of **CANVASBACK** in southern Prairie Canada in 2004 were below the previous year (-21%) (*Table2; Figure 7*) lower than the 10-year average (-29%), and lower than the long-term average (-21%). Estimates of canvasback in northern Prairie Canada (*Table 2; Figure 7*) increased in 2004 compared to 2003 (+24%), and the 10year average (+8%), but and remained above the long-term average (-30%).

For northern and southern Prairie Canada combined (*Table 2*) the 2004 estimate was 8% less than in 2003, 18% less than the 10-year average, and 6% less than the long-term average.

7. The continental MALLARD POPULATION ESTIMATE for 2004 is 7.425 million, 7% less than the estimate for 2003 (*Table 3*).

8. MALLARD HARVESTS decreased in Canada and increased in the United States in 2003 compared to 2002 (*Tables 5 to 7; Figures 8 to109*).

The harvest of mallards in Prairie Canada in 2003 was 66% less than when compared to the mean harvest of the 1980-84 period of stabilized regulations. The 1994-2003 average represents a 60% decrease in harvest compared to the 1980-84 average (*Table 4*). Harvest for all of Canada in 2003 was 60% less when compared to the 1980-84 mean, and the 1993-2002 mean showed a 52% decrease in harvest compared to the 1980-84 mean.

The harvest of mallards in the United States in 2003 was 14% more than the 1980-84 average. The 1994-2003 mean showed a 17% increase in harvest compared to the 1980-84 mean harvest (*Table 4*).

The harvest of Mallards in North America in 2003 was 3% less than the 1980-84 average, and the 1994-2003 average represents a 1% increase in harvest compared to the 1980-84 mean (*Table 4*).

9. MALLARD HARVEST RATES, expressed as harvests divided by the fall flight estimate multiplied by 100, decreased in Canada and the United States (*Tables 3 to 5; Figures 8 to10*).

The mallard harvest rate in Prairie Canada in 2003 was 2.6%, representing a 70% decline from that of the 1980-84 average. A 69% decline from the mean of the 1980-84 period of stabilized regulations is represented by the 1994-03 average (*Table 5*). For all of Canada, the mallard harvest rate in 2002 was 5.0%, representing a 65% decline from that of the 1980-84 mean. The 1994-03 mean showed a 63% decline from the 1980-84 mean.

The mallard harvest rate in the United States in 2003 was 48%, representing a 1% decrease from that of the 1980-84 average, and an 7% decline from the mean of the 1980-84 period when compared to the 1994-03 mean (*Table 5*).

The mallard harvest rate in North America in 2003 was 53%, representing a 16% decline compared to the 1980-84 mean. The 1994-03 mean of 50% represents a 20% decline compared to the mean of the 1980-84 period of stabilized regulations (*Table 5*).

10. Migratory game bird **PERMIT SALES** for residents were similar in 2003 (*Table 6*) in Manitoba (0%), and Saskatchewan (+1%), and Alberta (+3%). Sales of non-resident permits, primarily U.S. in origin,

were higher in 2003 compared to 2002 in Manitoba (+5%), Saskatchewan (+14%) and Alberta (+6%). For all of prairie Canada, this represents an 1% increase in resident permit sales, and a 10% increase in non-resident permit sales. These sales of permits indicate a continued general decline since peak sales in the mid-1970's (*Figure 11*).

11. The **WEIGHTED MALLARD POPULATION ESTIMATES** for the Prairie Pothole Region in 2004 are higher than 75% of the NAWMP goal (*Figure 12*). The PMHS dictates an adherence to traditional (liberal) mallard seasons.

APPENDIX A

Tables & Figures

R E			MALL	ARDS							тот	AL DU	CKS						MA	YPON	DS			
G I O N	2000	2001	2002	2003	2004	% diff 03	% diff 94 - 03	% diff 55 - 03	2000	2001	2002	2003	2004	% diff 03	% diff 94 - 03	% diff 55 - 03	2000	2001	2002	2003	2004	% diff 03	% diff 94 - 03	% diff 55 - 03
Southern Manitoba	368	446	401	505	393	-22	-6	5	1512.6	1809	1315	1589	393	-75	-74	-75	466	785.76	327	491	541	10	-14	-9
Southern Saskatchewan	2267	1650	1213	2111	1609	-24	-20	-23	7674.2	6463	3550	9299	5786	-38	-25	-22	1404	1535.8	635	2143	1461	-32	-30	-15
Southern Alberta	833	744	793	627	600	-4	-28	-46	3489.7	2531	2375	2699	2504	-7	-22	-43	553	425.7	477	888	511	-43	-27	-20
SOUTHERN SUBTOTAL	3468	2839	2406	3243	2603	-20	-20	-27	12677	10803	7240	13586	8684	-36	-30	-35	2423	2747	1439	3522	2513	-29	-27	-15
Northern Man & Sask	888.3	501.17	873	660	753	14	-12	-19	2740	2471.3	3780.2	2913	3558	22	14	13								
Northern Albt NWT BC	1288	979.03	1182	852	776	-9	-30	-30	7688	6185.8	7291	7356	6700	-9	-3	-21								
NORTHERN SUBTOTAL	2176	1480	2055	1511	1530	1	-22	-25	10428	8657	11071	10268	10258	0	3	-12								
PRAIRIE TOTALS	5644	4320	4462	4754	4133	-13	-21	-26	23105	19461	18311	23854	20030	-16	-11	-20								

Table 1. A comparison of May mallard breeding populations, May total duck breeding populations and May pond counts for prairie Canada: 2004 versus 2003, 1994-2003 and 1955-2003. (numbers in thousands)

Table 2. A comparison of May breeding populations of northern pintail, scaup and canvasback for Prairie Canada: 2004 versus 2003, 1994-2003 and 1955-2003. (numbers in thousands)

R			NORTHE	ERN PINT	AIL							SCAUP							CAN	IVASBAC	к			
G I O N	2000	2001	2002	2003	2004	% diff 03	% diff 94 - 03	% diff 55 - 03	2000	2001	2002	2003	2004	% diff 03	% diff 94 - 03	% diff 55 - 03	2000	2001	2002	2003	2004	% diff 03	% diff 94 - 03	% diff 55 - 03
Southern Manitoba	45	97	32	39	40	1	-38	-65	60	74	50	49	31	-35	-64	-77	64	56	63	42	70	68	11	26
Southern Saskatchewan	464	680	182	993	474	-52	-32	-62	273	321	150	251	185	-26	-46	-56	232	232	73	195	121	-38	-45	-34
Southern Alberta	189	66	73	252	161	-36	-28	-78	292	202	146	172	124	-28	-53	-66	73	32	14	70	50	-28	-13	-22
SOUTHERN SUBTOTAL	697	843	286	1285	675	-47	-32	-68	625	597	346	472	340	-28	-51	-63	369	320	151	306	241	-21	-29	-21
Northern Man & Sask	16	10	11	6	10	84	-26	-74	293	253	373	354	575	62	52	12	37	32	38	13	50	277	19	-2
Northern Albt NWT BC	220	175	187	170	193	14	18	-50	1621	1476	1784	1736	1624	-6	-5	-39	83	63	121	115	109	-5	4	53
NORTHERN SUBTOTAL	236	185	199	175	204	16	15	-52	1914	1729	2158	2090	2200	5	6	-31	120	94	159	128	159	24	8	30
PRAIRIE TOTALS	933	1028	485	1460	878	-40	-25	-65	2539	2325	2504	2562	2540	-1	-8	-38	489	415	310	435	400	-8	-18	-6

	19	93	19	94	19	95	19	96	19	97	19	98	19	99	20	00	20	01	20	02	20	03
AREA	BAS	MAR	BAS	MAR	BAS	MAR	BAS	MAR	BAS	MAR	BAS	MAR	BAS	MAR	BAS	MAR	BAS	MAR	BAS	MAR	BAS	MAR
Southwest Manitoba	30.1 (15	80.4 03)	15.3 (10	75.4 54)	26.4 (18		24.5 (21	82.7 98)	21.6 (17		18.7 (13	79.3 33)		83.5 17)	16.2 (11	76 21)		80.8 51)	17.7 (96	74.2 61)		78.4 45)
Southeast Saskatchewan		80.1 93)	23.7 (16	84.1 95)	25.7 (22	85.9 76)	24.1 (24	85.9 95)	21.0 (23	85.7 56)	17.4 (13	84.0 35)		87.6 34)	18.0 (14	82.7 16)		85.0 85)	16.9 (90	82.3 06)		78.4 45)
Southwest Saskatchewan		74.5 47)	16.4 (41	83.4 19)	20.0 (27	79.2 19)	20.9 (50	85.8 69)	23.2 (44	82.9 72)	13.8 (14-	74.0 40)		76.7 12)	18.2 (14	75.9 53)		75.2 23)	11.5 (68	73.7 50)		75.9 59)
Southern Alberta		77.3 44)	24.8 (27	75.9 66)	22.9 (23	75.4 68)	33.6 (31	78.8 70)	36.6 (39	80.4 71)	18.6 (20	74.7 07)	34.5 (26	78.6 52)	19.0 (20	78.8 65)		78.1 12)	19.0 (18	77.7 46)		78.1 82)
Prairie Canada		78.0 50)	20.0 (76	80.5 87)	23.5 (96		25.2 (92	83.6 22)	26.8 (129		17.2 (125	77.6 75)	38.7 (61	81.6 65)	17.5 (91	77.9 15)		80.3 28)	16.3 (72	77 71)		79.7 35)

Table 3. Percentage of ponds* which have been impacted by agricultural practices on their basins (BAS) and margins (MAR) during the period 1992-2002. The values in brackets are the number of ponds in the sample (type III to V, streams and artificials)

* defined as Type 3-5, Streams and Artificial Water Areas

	\$	Southern	Manitob	a								0/ -1:55	0/ -1:55
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	% diff 2001	% diff 92-01
													ave
Broods*	46.4	13.7	16.6	13.1	19.5	30.2	19.4	33.1	20.8	30.0	15.7	-48	-35
Brood Size	5.1	4.7	5.2	5.7	5.2	5.3	4.9	5.5	5.4	6.0	4.8	-20	-9
Coot Broods*	25.2	0.3	0.7	0.7	7.0	6.1	11.8	9.9	8.7	14.1	3.6	-74	-57
LNI Mallards*	16.4	8.7	8.2	6.4	19.6	6.4	7.9	23.8	11.8	13.9	26.4	90	114
LNI Ducks*	38.4	34.1	21.5	27.2	75.4	19.1	26.6	61.0	30.6	33.4	63.9	91	74
July Ponds*	261	430	294	276	450	416	633	286	625	587.0	282.0	-52	-34
	5	Southern	Saskato	hewan								0/ 1155	o /
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	% diff 2001	% diff 92-01
	1992	1993	1994	1995	1990	1997	1990	1999	2000	2001	2002	2001	ave
													uvo
Broods*	63.2	19.2	87.8	78.9	129.3	161.3	67.3	82.3	91.5	96.4	31.0	-68	-65
Brood Size	5.1	4.8	6.2	5.6	5.9	5.6	5.5	6.6	5.4	6.3	5.3	-16	-7
Coot Broods*	29.5	3.8	12.5	6.7	63.5	48.5	19.8	41.5	37.3	34.9	1.5	-96	-95
LNI Mallards*	19.6	13.7	19.5	11.8	34.0	23.8	26.6	106.8	33.2	25.2	35.9	42	14
LNI Ducks*	63.3	42.8	48.8	48.8	133.0	69.0	86.0	273.6	97.1	69.2	70.4	2	-24
July Ponds*	559	1276	1506	1068	1667	1428	1665	1697	1438	941.0	726.1	-23	-45
	5	Southern	Alberta										
												% diff	% diff
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2001	92-01
													ave
Broods*	30.3	40.8	49.3	49.3	35.9	66.4	38.3	78.9	48.7	48.4	29.5	-39	-39
Brood Size	4.9	4.3	5.4	5.4	5.3	5.9	5.2	4.4	4.6	4.6	4.9	6	-2
Coot Broods*	2.6	5.5	17.5	22.9	4.7	2.8	0.6	1.6	5.2	0.8	1.0	25	-84
LNI Mallards*	6.6	9.6	12.1	16.2	22.5	20.3	22.9	11.9	6.5	11.8	20.4	73	45
LNI Ducks*	24.2	38.6	49.8	61.6	100.2	82.2	95.5	63.7	35.0	37.0	61.8	67	5
July Ponds*	530	587	530	430	531	646	553	793	409	311	325	5	-39
	ŝ	Southern	Prairie	i otal**								0/ 시iff	0/ 시태
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	% diff 2001	% diff 92-01
										2001			ave
Broods*	139.9	73.7	153.7	141.3	184.7	257.9	125.0	194.3	161.0	174.8	76.2	-56	-53
Brood Size***	5.0	4.6	5.6	5.6	5.5	5.6	5.2	5.5	5.1	5.6	5.0	-11	-6
Coot Broods*	57.3	9.6	30.7	30.3	75.2	57.4	32.2	53.0	51.2	49.8	6.1	-88	-86
LNI Mallards*	42.6	32	39.8	34.4	76.1	50.5	57.4	142.5	51.5	50.9	82.7	62	43
LNI Ducks*	125.9	115.5	120.1	137.6	308.6	170.3	208.1	398.3	162.7	139.6	196.1	40	4
July Ponds*	1350	2293	2330	1774	2648	2490	2851	2776	2472	1838.6	1333.3	-27	-42
* numbers in the													

Table 4. Duck production and July pond counts for Prairie Canada: 1992 to 2002.

* numbers in thousands

	POPULATIO	ON STATUS*	MALL	ARD HARVEST		HARV	EST RATE (har	vest/fall flight) X	100
YEAR	Breeding Population	Fall Flight	Prairie Canada	Total Canada	United States	Prairie Canada	Total Canada	United States	North America
1975	7727	11982	1258	1744	5037	10.5%	14.6%	42.0%	56.6%
1976	7934	11436	1426	1952	5123	12.5%	17.1%	44.8%	61.9%
1977	7397	9405	1071	1565	4468	11.4%	16.6%	47.5%	64.1%
1978	7425	10393	1016	1529	5066	9.8%	14.7%	48.7%	63.5%
1979	7883	11719	1154	1613	4815	9.8%	13.8%	41.1%	54.9%
1980	7707	9757	1047	1534	4682	10.7%	15.7%	48.0%	63.7%
1981	6410	8256	793	1294	4366	9.6%	15.7%	52.9%	68.6%
1982	6409	9163	686	1214	3937	7.5%	13.2%	43.0%	56.2%
1983	6456	9764	809	1329	4449	8.3%	13.6%	45.6%	59.2%
1984	5415	7956	605	1059	3952	7.6%	13.3%	49.7%	63.0%
1985	4961	8409	424	909	3342	5.0%	10.8%	39.7%	50.6%
1986	6124	9791	447	879	3400	4.6%	9.0%	34.7%	43.7%
1987	5790	8481	516	1041	3231	6.1%	12.3%	38.1%	50.4%
1988	6369	8906	221	661	2006	2.5%	7.4%	22.5%	29.9%
1989	5645	8103	330	734	2357	4.1%	9.1%	29.1%	38.1%
1990	5452	8420	309	730	2320	3.7%	8.7%	27.6%	36.2%
1991	5445	8238	252	611	2375	3.1%	7.4%	28.8%	36.2%
1992	5976	9358	229	580	2560	2.4%	6.2%	27.4%	33.6%
1993	5708	8649	171	523	2754	2.0%	6.0%	31.8%	37.9%
1994	6980	11083	253	608	3121	2.3%	5.5%	28.2%	33.6%
1995	8269	12167	290	603	4418	2.4%	5.0%	36.3%	41.3%
1996	7941	12620	329	641	4879	2.6%	5.1%	38.7%	43.7%
1997	9940	14329	392	719	5412	2.7%	5.0%	37.8%	42.8%
1998	9640	11750	354	664	5621	3.0%	5.7%	47.8%	53.5%
1999	10806	13600	370	633	5521	2.7%	4.7%	40.6%	45.3%
2000	9470	11221	323	689	5696	2.9%	6.1%	50.8%	56.9%
2001	8199	10514	294	592	5217	2.8%	5.6%	49.6%	55.2%
2002	7799	10430	278	547	4916	2.7%	5.2%	47.1%	52.4%
2003	7950	10300	266	511	5019	2.6%	5.0%	48.7%	53.7%
2004	7425								

Table 3. Size of breeding population, fall flight, harvest and harvest rate for mallards in North America.

* numbers in thousands

N. A.	Stabilized Regulations						Post Sta	abilized F	Regulations	;												1994-03
NUMBERS	1980 - 1984 MEAN	1994	%DIF*	1995	%DIF*	1996	%DIF*	1997	%DIF*	1998	%DIF*	1999	%DIF*	2000	%DIF*	2001	%DIF*	2002	%DIF*	2003	%DIF*	MEAN
Breeding Population	6479	6980	7.7%	8269	27.6%	7941	22.6%	9940	53.4%	9640	48.8%	10806	66.8%	9470	46.2%	8199	26.5%	7799	20.4%	7950	22.7%	8699
Fall Flight	8979	6980	-22.3%	8269	-7.9%	7941	-11.6%	9940	10.7%	11750	30.9%	13600	51.5%	11221	25.0%	10514	17.1%	10430	16.2%	10300	14.7%	10095
CANADA HARVEST	Stabilized Regulations 1980 - 1984 MEAN	tabilized F 1994	Regulations %DIF*	3 1995	%DIF*	1996	%DIF*	1997	%DIF*	1998	%DIF*	1999	%DIF*	2000	%DIF*	2001	%DIF*	2002	%DIF*	2003	%DIF*	1994-03 MEAN
Prairie	788	253	-67.9%	290	-63.2%	329	-58.2%	392	-50.3%	354	-55.1%	370	-53.0%	323	-59.0%	294	-59.0%	278	-59.0%	266	-66.3%	315
TOTAL	1286	608	-52.7%	603	-53.1%	641	-50.2%	719	-44.1%	664	-48.4%	633	-50.8%	687	-46.6%	592	-46.6%	547	-46.6%	511	-60.2%	620
U.S. HARVEST	Stabilized Regulations 1980 - 1984 MEAN	tabilized F 1994	Regulations %DIF*	3 1995	%DIF*	1996	%DIF*	1997	%DIF*	1998	%DIF*	1999	%DIF*	2000	%DIF*	2001	%DIF*	2002	%DIF*	2003	%DIF*	1994-03 MEAN
Atlantic	415	329	-20.8%	424	2.1%	408	-1.7%	479	15.4%	446	7.4%	438	5.5%	499	20.9%	467	20.9%	555	20.9%	427	2.9%	447
Mississippi	2001	1525	-23.8%	2347	17.3%	2494	24.6%	2852	42.5%	2763	38.1%	3061	53.0%	3041	51.6%	2768	51.6%	2423	51.6%	2571	28.5%	2585
Central	754	511	-32.2%	694	-8.0%	764	1.3%	886	17.5%	953	26.4%	878	16.4%	1113	42.3%	1151	42.3%	1003	42.3%	842	11.7%	880
Pacific	1079	757	-29.9%	960	-11.0%	1213	12.4%	1195	10.7%	1459	35.2%	1144	6.0%	1025	-2.3%	997	-2.3%	915	-2.3%	1053	-2.4%	1072
TOTAL	4277	3122	-27.0%	4425	3.5%	4879	14.1%	5412	26.5%	5621	31.4%	5521	29.1%	5662	32.4%	5384	25.9%	4896	14.5%	4894	14.4%	4982
N.A. HARVEST	Stabilized Regulations 1980 - 1984 MEAN	tabilized F 1994	Regulations %DIF*	3 1995	%DIF*	1996	%DIF*	1997	%DIF*	1998	%DIF*	1999	%DIF*	2000	%DIF*	2001	%DIF*	2002	%DIF*	2003	%DIF*	1994-03 MEAN
TOTAL	5563	3730	-32.9%	5028	-9.6%	5520	-0.8%	6131	10.2%	6285	13.0%	6154	10.6%	6349	14.1%	5975.4	7.4%	5442.5	-2.2%	5405.87	-2.8%	5602

Table 4. Canadian and United States harvests of mallards in relation to breeding populations and fall flights for the 1980-84 period of stabilized regulations, and 1994-2003 period. Values of breeding populations, fall flights and harvests in 1000's.

* Difference from mean value 1980 - 1984

N.A.	Stabilized Regulations						Post Sta	abilized R	Regulations	5												1994-03
Numbers	1980 - 1984 Mean	1994	%DIF*	1995	%DIF*	1996	%DIF*	1997	%DIF*	1998	%DIF*	1999	%DIF*	2000	%DIF*	2001	%DIF*	2002	%DIF*	2003	%DIF*	MEAN
Breeding Population	6479	6980	7.7%	8269	27.6%	7941	22.6%	9940	53.4%	9640	48.8%	10806	66.8%	9470	46.2%	8199	26.5%	7799	20.4%	7950	22.7%	8699
Fall Flight	8979	11083	23.4%	12167	35.5%	12620	40.5%	14329	59.6%	11750	30.9%	13600	51.5%	11221	25.0%	10514	17.1%	10430	16.2%	10300	14.7%	11801
CANADA HARVEST RATE #	Stabilized Regulations 1980 - 1984 Mean	tabilized F 1994	Regulation: %DIF*		%DIF*	1996	%DIF*	1997	%DIF*	1998	%DIF*	1999	%DIF*	2000	%DIF*	2001	%DIF*	2002	%DIF*	2003	%DIF*	1994-03 MEAN
Prairie	8.7	2.3	-73.8%	2.4	-72.6%	2.6	-70.0%	2.7	-68.6%	3.0	-65.4%	2.7	-68.7%	2.9	-66.9%	2.8	-67.8%	2.7	-69.4%	2.6	-70.3%	2.7
TOTAL	14.3	5.5	-61.6%	5.0	-65.3%	5.1	-64.5%	5.0	-64.9%	5.7	-60.5%	4.7	-67.5%	6.1	-57.0%	5.6	-60.6%	5.2	-63.4%	5.0	-65.3%	5.3
U.S. HARVEST RATE #	Stabilized Regulations 1980 - 1984 Mean	tabilized F 1994	Regulation: %DIF*	s 1995	%DIF*	1996	%DIF*	1997	%DIF*	1998	%DIF*	1999	%DIF*	2000	%DIF*	2001	%DIF*	2002	%DIF*	2003	%DIF*	1994-03 MEAN
Atlantic	4.6	3.7	-20.0%	3.9	-14.4%	3.5	-23.2%	3.1	-33.5%	4.2	-7.7%	3.0	-35.6%	3.6	-22.0%	4.1	-11.6%	4.1	-10.9%	4.1	-9.8%	3.7
Mississippi	22.3	22.5	0.9%	23.4	5.1%	21.9	-1.8%	21.4	-4.2%	25.9	16.1%	18.4	-17.4%	22.3	0.1%	24.5	9.7%	24.7	10.6%	25.0	12.0%	23.0
Central	8.5	6.9	-18.4%	7.3	-13.8%	7.6	-10.6%	6.1	-27.5%	9.5	12.0%	9.7	14.4%	11.7	38.7%	8.0	-5.2%	8.1	-4.5%	8.2	-3.2%	8.3
Pacific	12.1	10.9	-9.2%	9.8	-18.5%	11.6	-4.1%	8.0	-33.8%	8.7	-27.6%	7.1	-40.8%	8.6	-28.2%	10.0	-16.9%	10.1	-16.2%	10.2	-15.1%	9.5
TOTAL	47.8	44.0	-7.9%	44.5	-6.9%	44.5	-6.8%	38.5	-19.4%	48.2	0.8%	38.2	-20.1%	46.3	-3.2%	46.6	-2.6%	46.9	-1.8%	47.5	-0.6%	44.5
N.A. HARVEST RATE #	Stabilized Regulations 1980 - 1984 Mean	tabilized F 1994	Regulation: %DIF*	s 1995	%DIF*	1996	%DIF*	1997	%DIF*	1998	%DIF*	1999	%DIF*	2000	%DIF*	2001	%DIF*	2002	%DIF*	2003	%DIF*	1994-03 MEAN
TOTAL	62.1	49.5	-20.3%	49.4	-20.4%	49.6	-20.1%	43.5	-29.9%	53.8	-13.3%	42.8	-31.0%	52.4	-15.6%	52.2	-16.0%	52.2	-16.0%	52.5	-15.5%	49.8
Difference from	m moon value 1090 1094																					

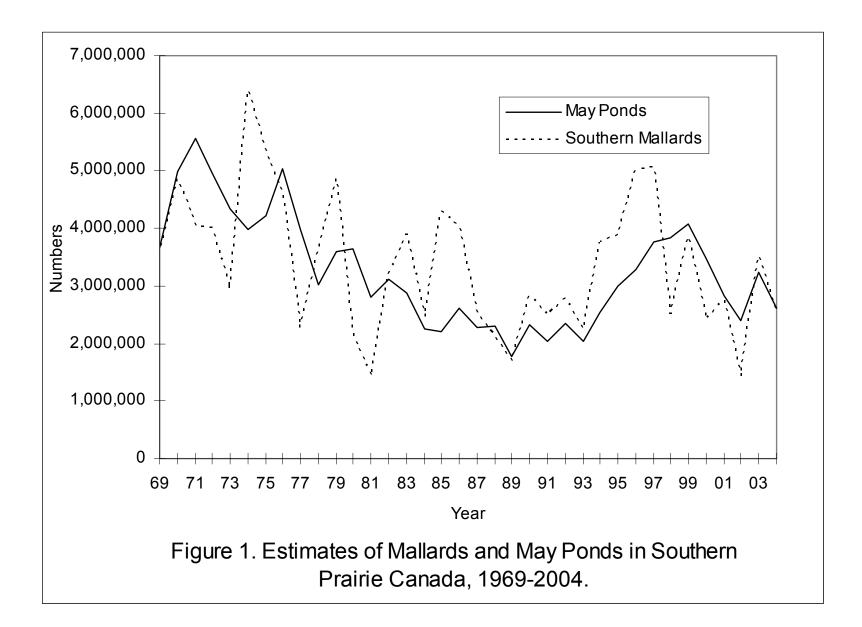
Table 5. Canadian and United States harvest rates of mallards in relation to breeding populations for the 1980-84 period of stabilized regulations, and 1994-2003 period. Breeding population and fall flight values in 1000's.

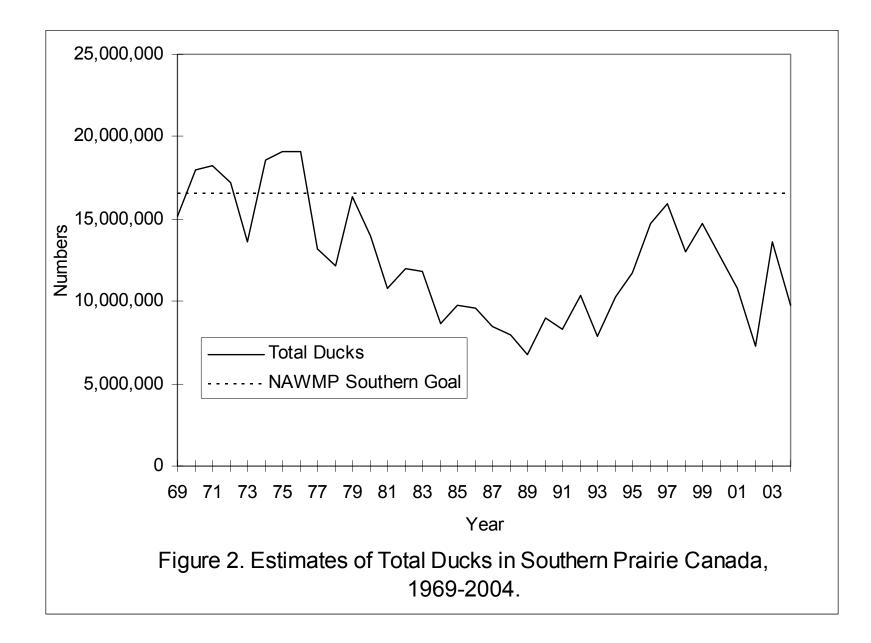
* Difference from mean value 1980 - 1984

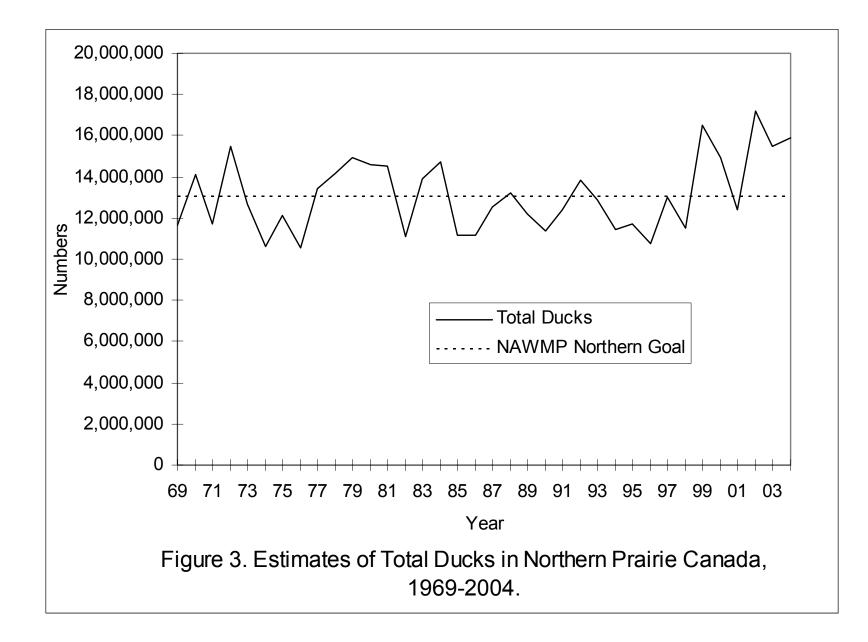
PROVINCE (TYPE)	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	03 vs 02
MANITOBA											
Resident Alien	14389 4449	14725 4905	14534 5168	13149 5769	12147 6298	11051 6382	10338 5436	10475 4563	9570 5262	9576 5548	0 5
TOTAL	18838	19630	19702	18918	18445	17433	15774	15038	14832	15124	2
SASKATCHEWA	AN										
Resident Alien	16177 4077	15862 4748	14656 5819	13379 6730	14185 7637	11930 9234	11775 10098	10136 8242	8917 8041	8982 9173	1 14
TOTAL	20254	20610	20475	20109	21822	21164	21873	18378	16958	18155	7
ALBERTA											
Resident Alien	24687 1524	24199 1546	25373 1926	24471 2376	19541 2697	18211 2824	18212 3512	16321 3206	14324 3490	14688 3684	3 6
TOTAL	26211	25745	27299	26847	22238	21035	21724	19527	17814	18372	3
PRAIRIE CANAE	DA										
Resident Alien	55253 10050	54786 11199	54563 12913	50999 14875	45873 16632	41192 18440	40325 19046	36932 16011	32811 16793	33246 18405	1 10
TOTAL	65303	65985	67476	65874	62505	59632	59371	52943	49604	51651	4

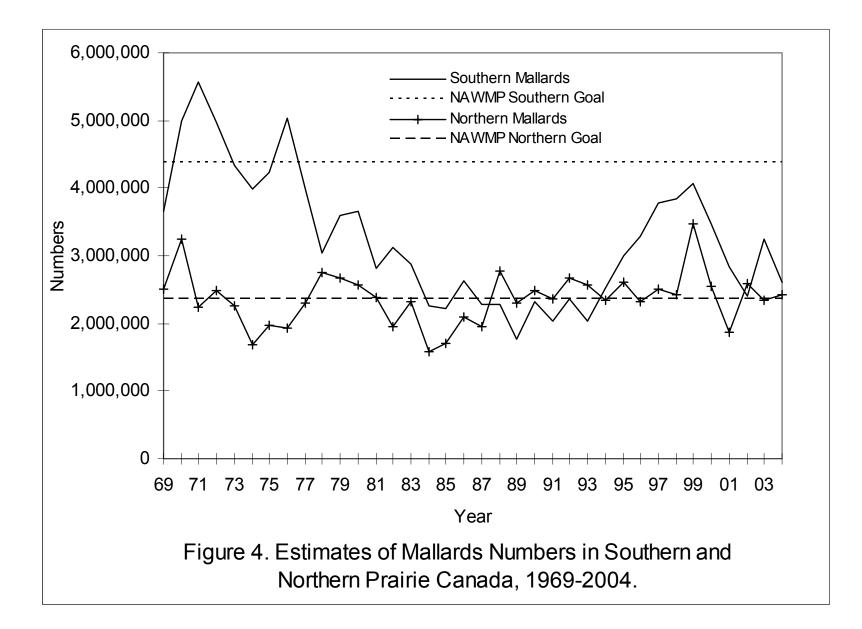
 Table 6.
 Migratory Game Bird Hunting Permit sales in Prairie Canada: 1994 - 2003.

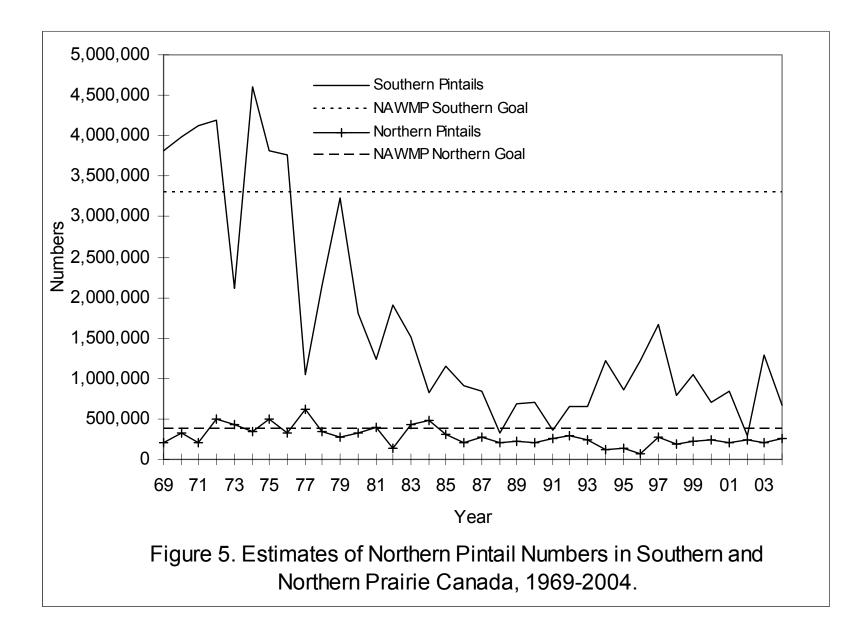
* From Canadian Wildlife Service record of sales to April, 2004.

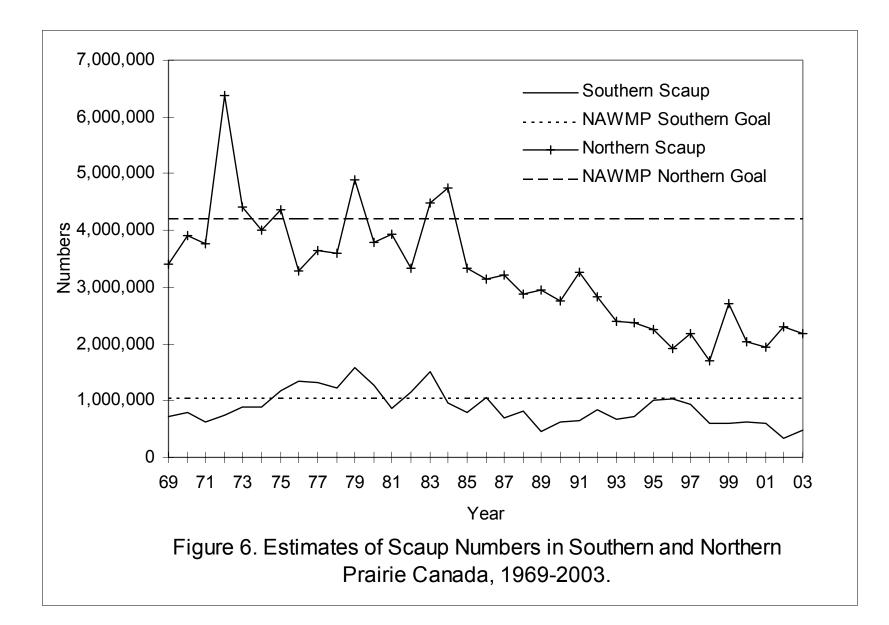


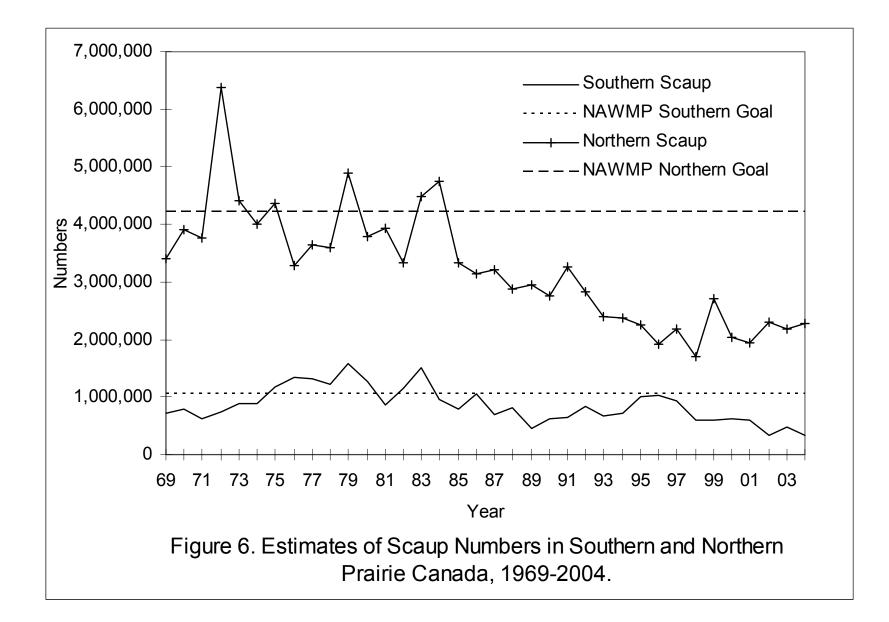


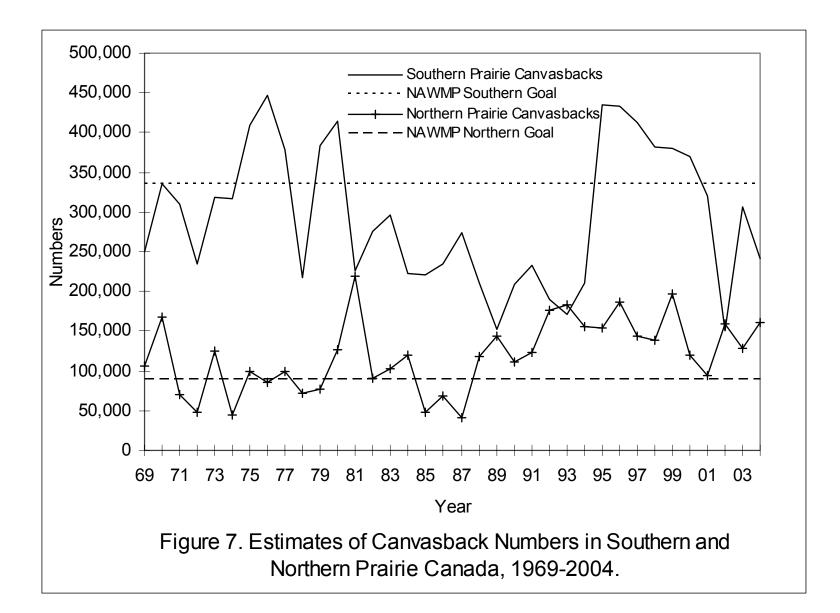


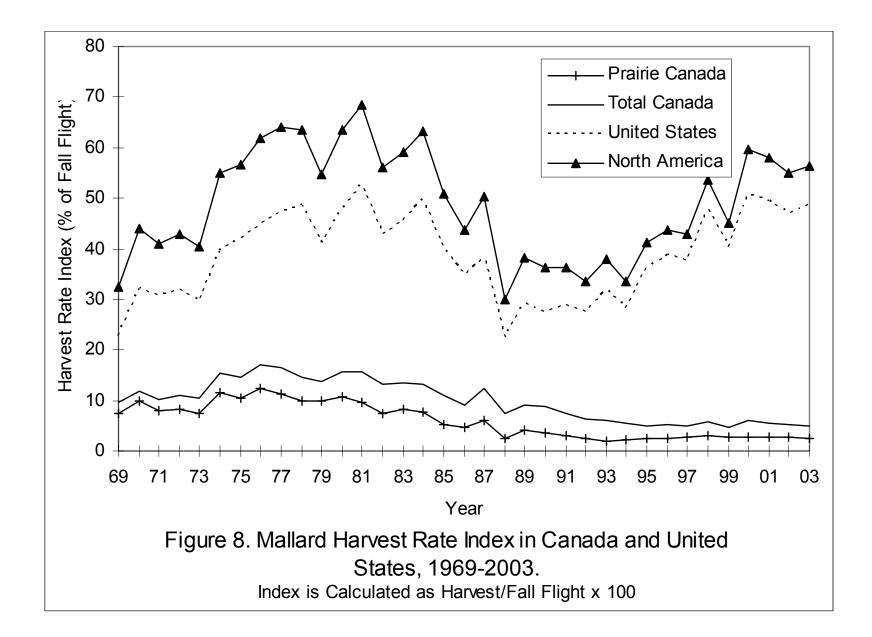


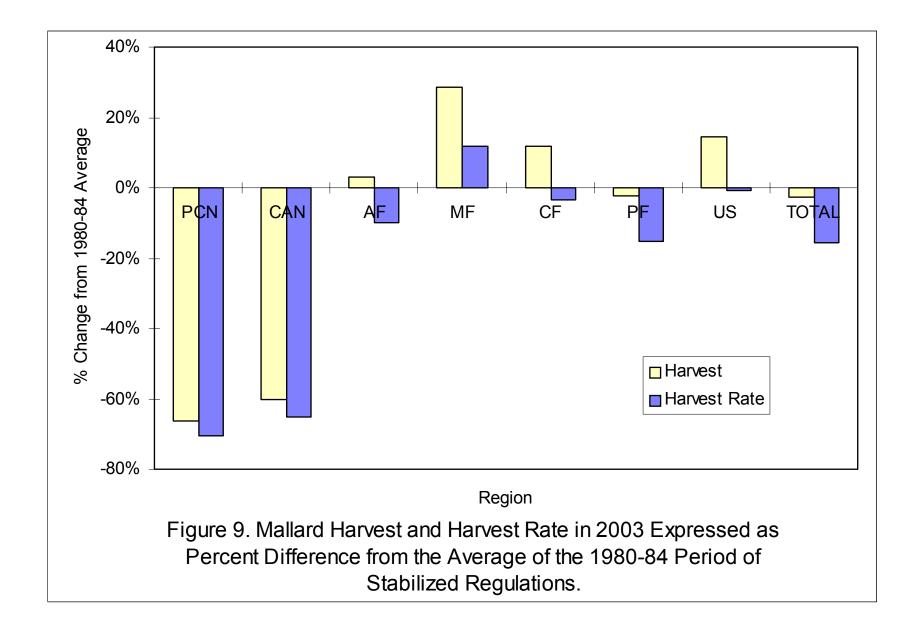


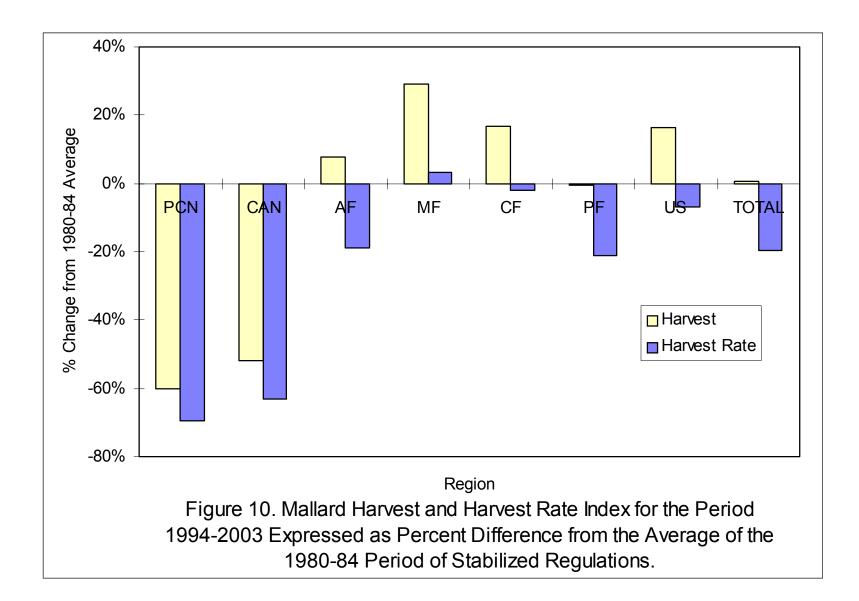


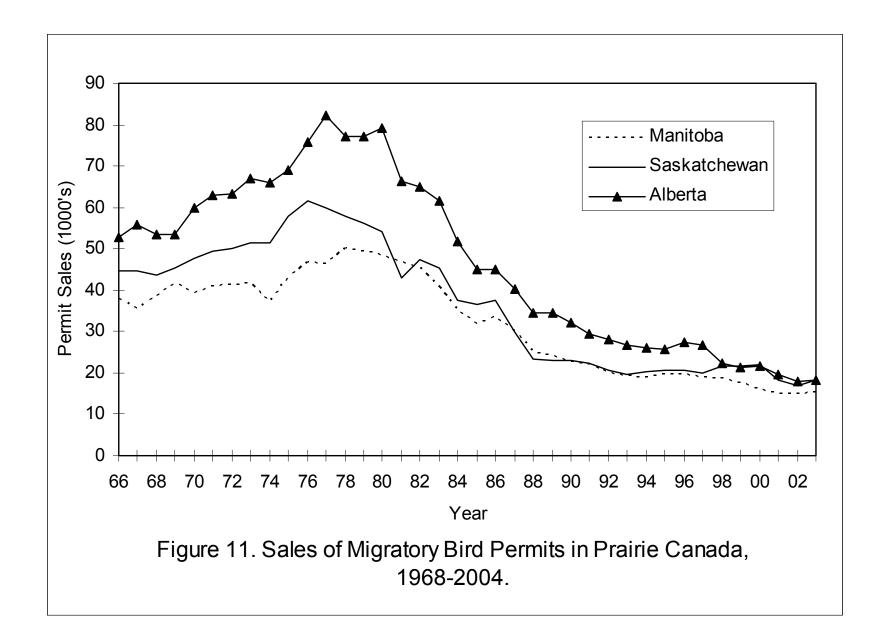








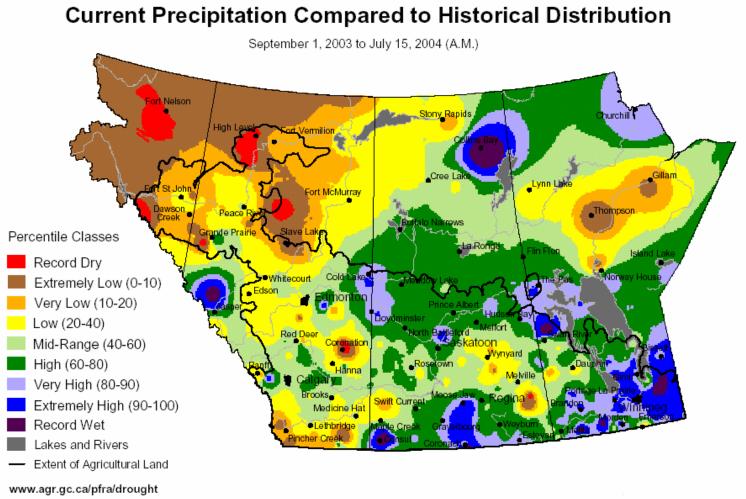




APPENDIX B

Precipitation Maps and Palmer Drought Index (PDI) and PDI Change Maps courtesy of Prairie Farm Rehabilitation Administration.

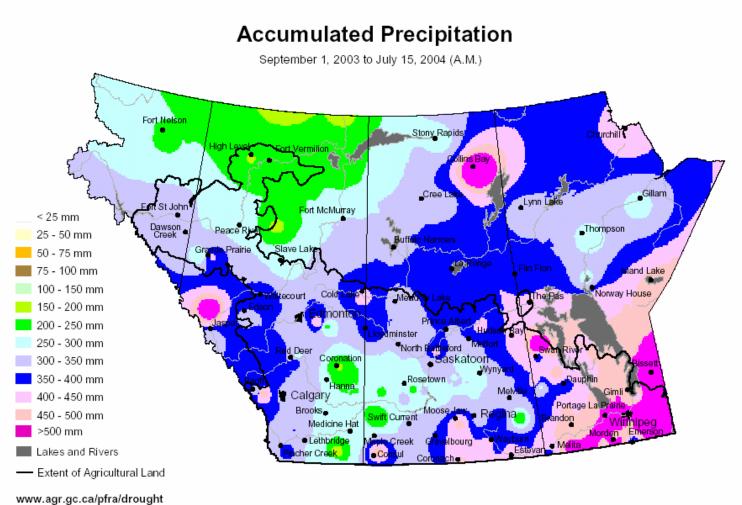




Prepared by Agriculture and Agri-Food Canada (PFRA) using data from the Timely Climate Monitoring Network and the many federal and provincial agencies and volunteers that support it.





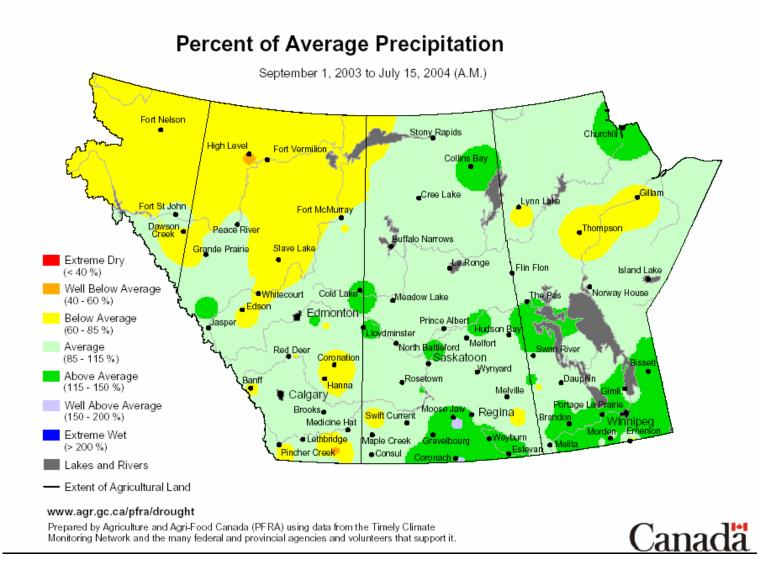


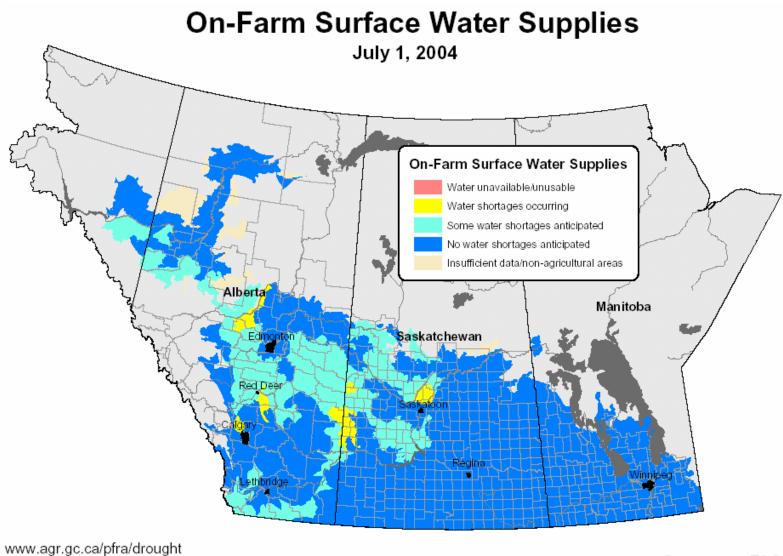
Prepared by Agriculture and Agri-Food Canada (PFRA) using data from the Timely Climate Monitoring Network and the many federal and provincial agencies and volunteers that support it.





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