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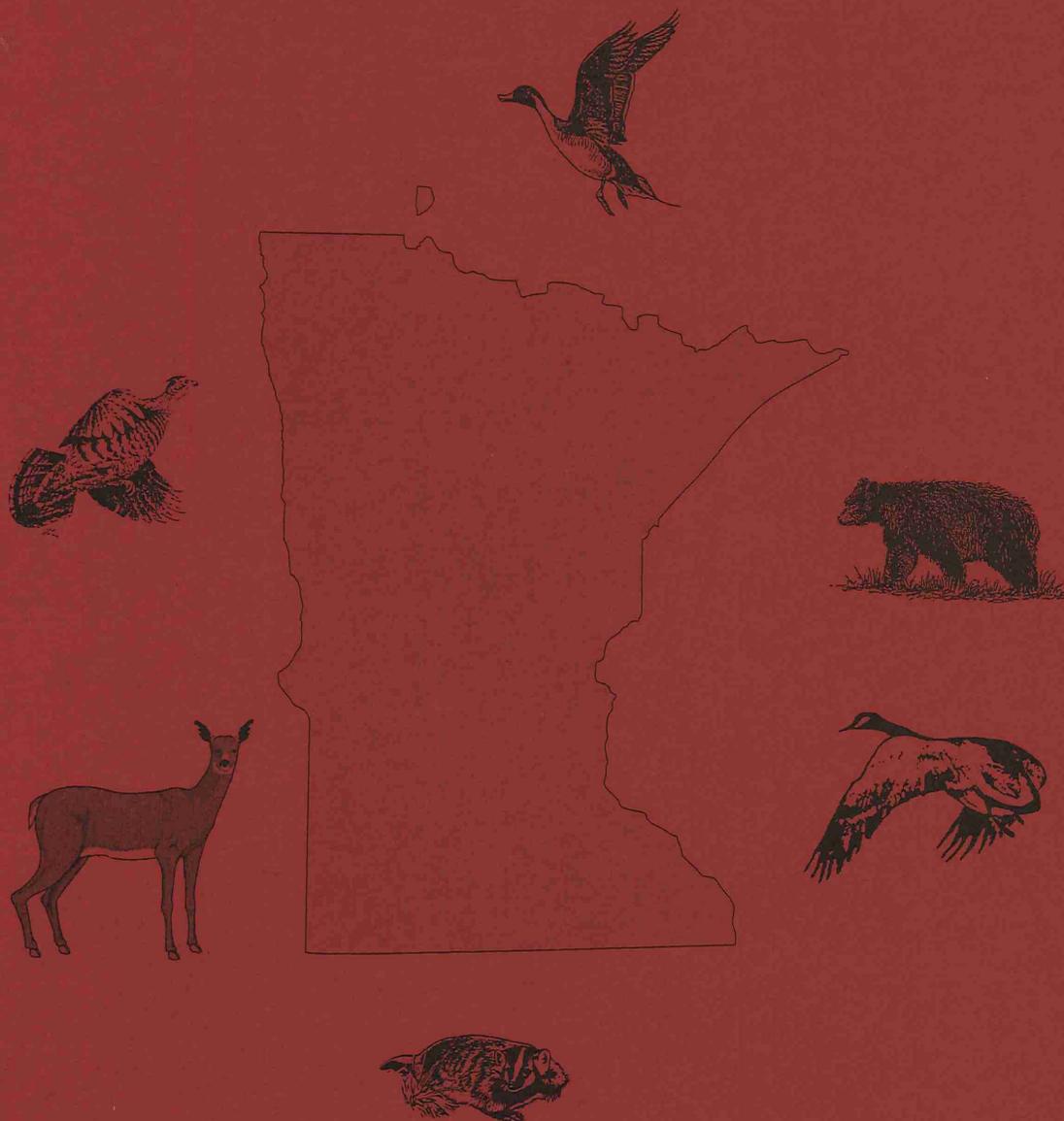


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STATUS OF WILDLIFE POPULATIONS, FALL 2003

(INCLUDING 1991 - 2002 HUNTING AND TRAPPING HARVEST STATISTICS)



MINNESOTA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE
WILDLIFE POPULATIONS AND RESEARCH UNIT
ST. PAUL, MINNESOTA

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2003

STATUS OF WILDLIFE POPULATIONS, FALL 2003

(Including 1991-2002 Hunting and Trapping Harvest Statistics)



edited by
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Note: Data in this report may change as a result of future verification and more comprehensive analysis.

Status of Wildlife Populations, Fall 2003

(Including 1991-2002 Hunting and Trapping Harvest Statistics)

This is the 27th year that the Wildlife Populations and Research Unit has compiled this booklet; it is primarily an administrative document intended for DNR personnel. (Since 1984 we have also generated a companion volume containing annual summaries of activities and findings from ongoing research projects in the Unit).

Most of the field work associated with collection of census and survey data for farmland and forest wildlife is performed by wildlife biologists and managers (conservation officers also participate in August roadside counts). The Farmland and Forest Wildlife Population and Research groups coordinate these activities, analyze and interpret data, and prepare recommendations for harvest regulations and season setting.

Much of the census and survey work for wetland species is done by personnel in the Wetland Wildlife Populations and Research Group.

Most of the hunting and trapping harvest estimates are calculated and summarized by St. Paul central office personnel.

Predator scent post and winter track graphs now include confidence intervals. We are temporarily suspending some of the waterfowl harvest tables and we have deleted the section on the demonstration forest. The aerial beaver survey was suspended this year.

Compiling and publishing this report was funded in part under the Federal Aid in Wildlife Restoration Act, Minnesota project W-69-S.

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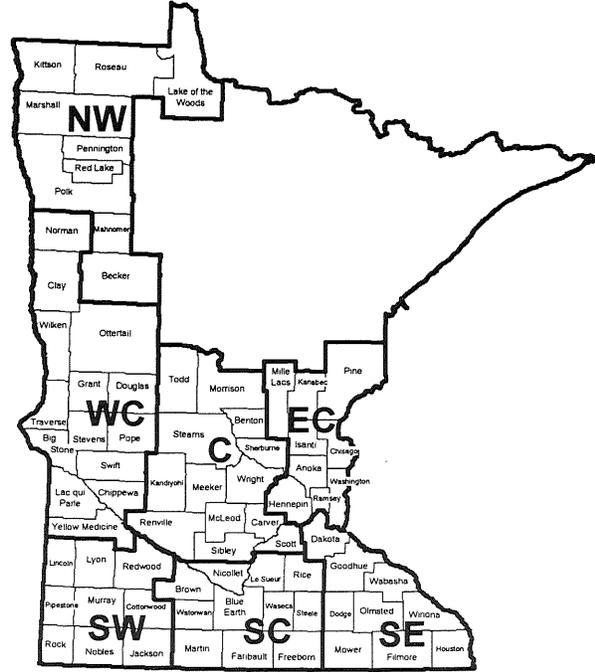
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FARMLAND WILDLIFE POPULATIONS
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Pheasants/100 miles



<u>RANGEWIDE</u>	
2003	108
2002	66
1993-2002	50
1955-1964	288
LTA (1955-02)	104
<u>% change from:</u>	
2002	64
1993-2002	115
1955-1964	-62
LTA	4

<u>WEST CENTRAL</u>	
2003	82
2002	66
1993-2002	30
1955-1964	346
LTA (1955-02)	107
<u>% change from:</u>	
2002	25
1993-2002	178
1955-1964	-76
LTA	-23

<u>CENTRAL</u>	
2003	88
2002	47
1993-2002	38
1955-1964	190
LTA (1955-02)	74
<u>% change from:</u>	
2002	88
1993-2002	133
1955-1964	-54
LTA	19

<u>EAST CENTRAL</u>	
2003	56
2002	31
1993-2002	43
1955-1964	184
LTA (1955-02)	91
<u>% change from:</u>	
2002	81
1993-2002	29
1955-1964	-69
LTA	-38

<u>SOUTHWEST</u>	
2003	244
2002	113
1993-2002	68
1955-1964	356
LTA (1955-02)	109
<u>% change from:</u>	
2002	115
1993-2002	258
1955-1964	-31
LTA	123

<u>SOUTH CENTRAL</u>	
2003	137
2002	88
1993-2002	73
1955-1964	409
LTA (1955-02)	142
<u>% change from:</u>	
2002	55
1993-2002	88
1955-1964	-67
LTA	-3

<u>SOUTHEAST</u>	
2003	48
2002	41
1993-2002	57
1955-1964	129
LTA (1955-02)	84
<u>% change from:</u>	
2002	19
1993-2002	-16
1955-1964	-63
LTA	-42

Figure 1. Range-wide and regional pheasant indices (birds/100 mi) and trends (% change), Minnesota August Roadside Survey, 1955-2003. LTA = long-term average (1955-2002); 1993-2002 = 10-year average; 1955-1964 = benchmark (soil-bank years when annual harvest averaged 1 million pheasants). Note: estimates are based on all routes completed and, thus, may differ from values in Table 2 and 3, which are based on routes directly comparable among years (i.e., unaltered routes with few or no missing survey years).

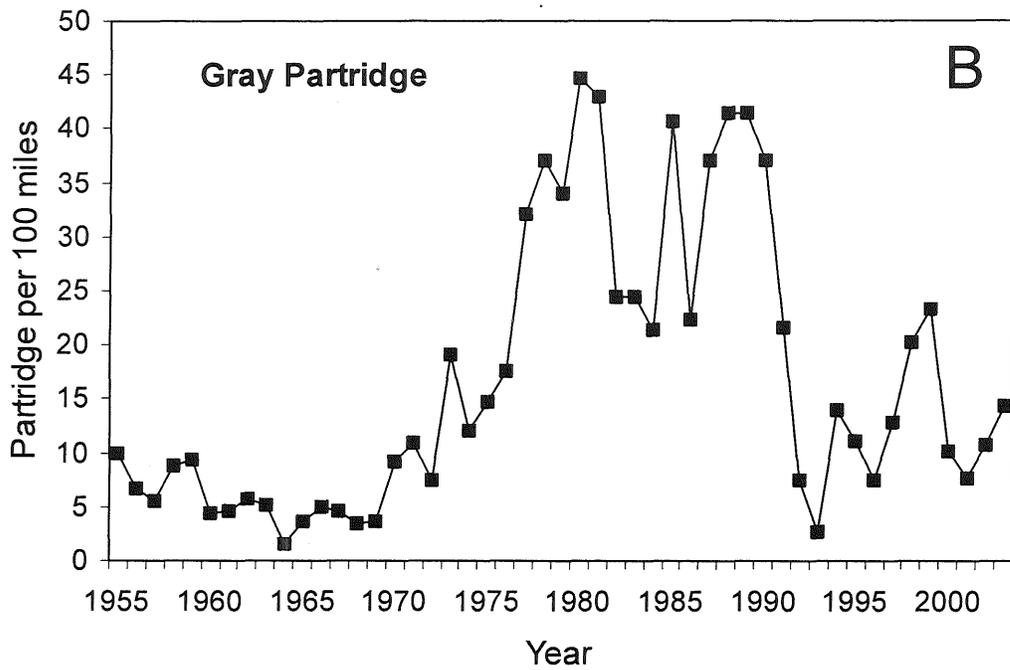
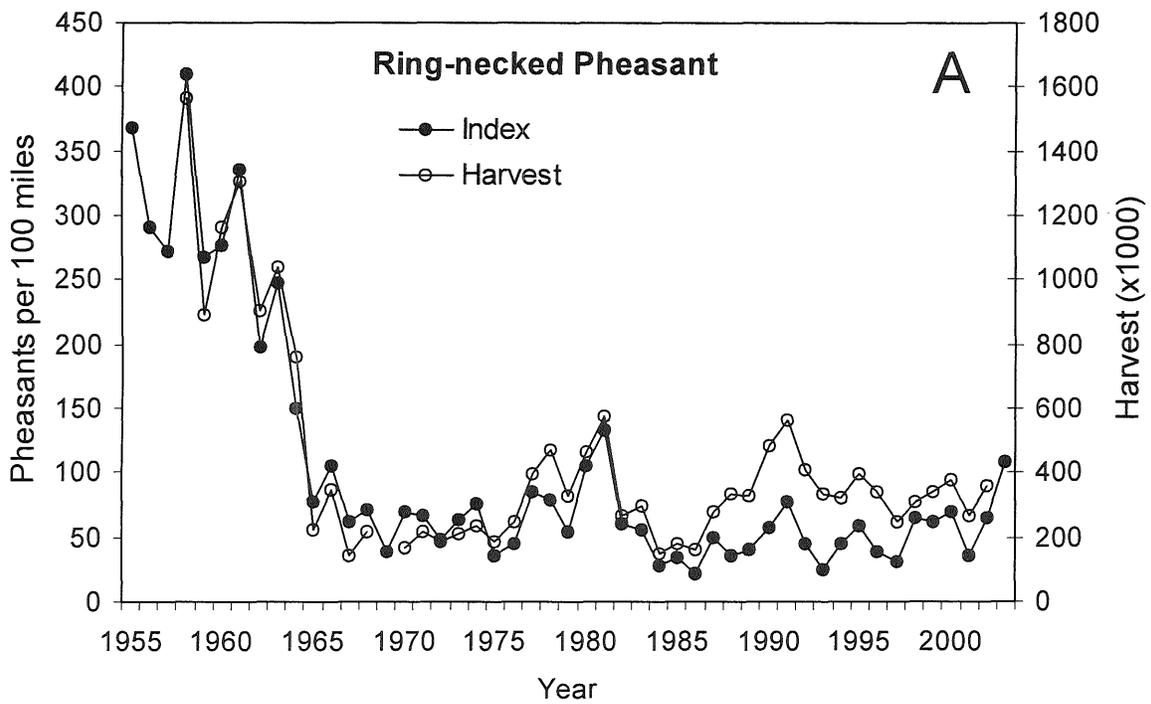


Figure 2. Statewide index of ring-necked pheasants (A) and gray partridge (B) seen per 100 miles driven. Does not include the Northwest region. Based on all survey routes completed.

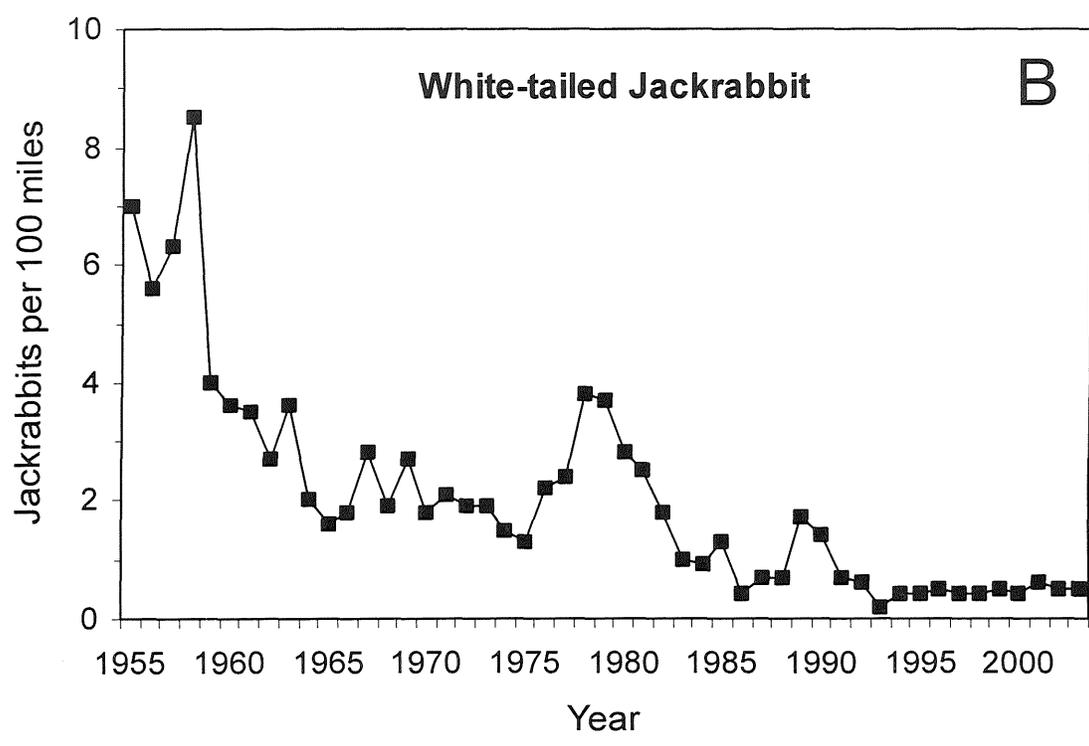
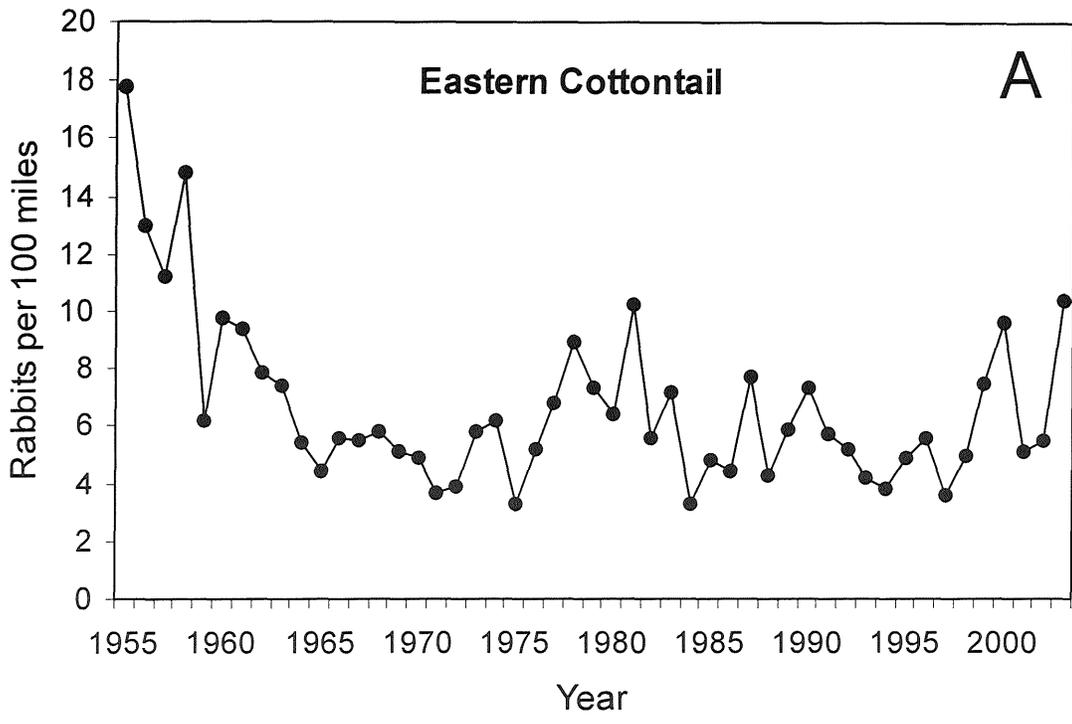


Figure 3. Statewide index of eastern cottontail (A) and white-tailed jackrabbits (B) seen per 100 miles driven. Does not include the Northwest region. Based on all survey routes completed.

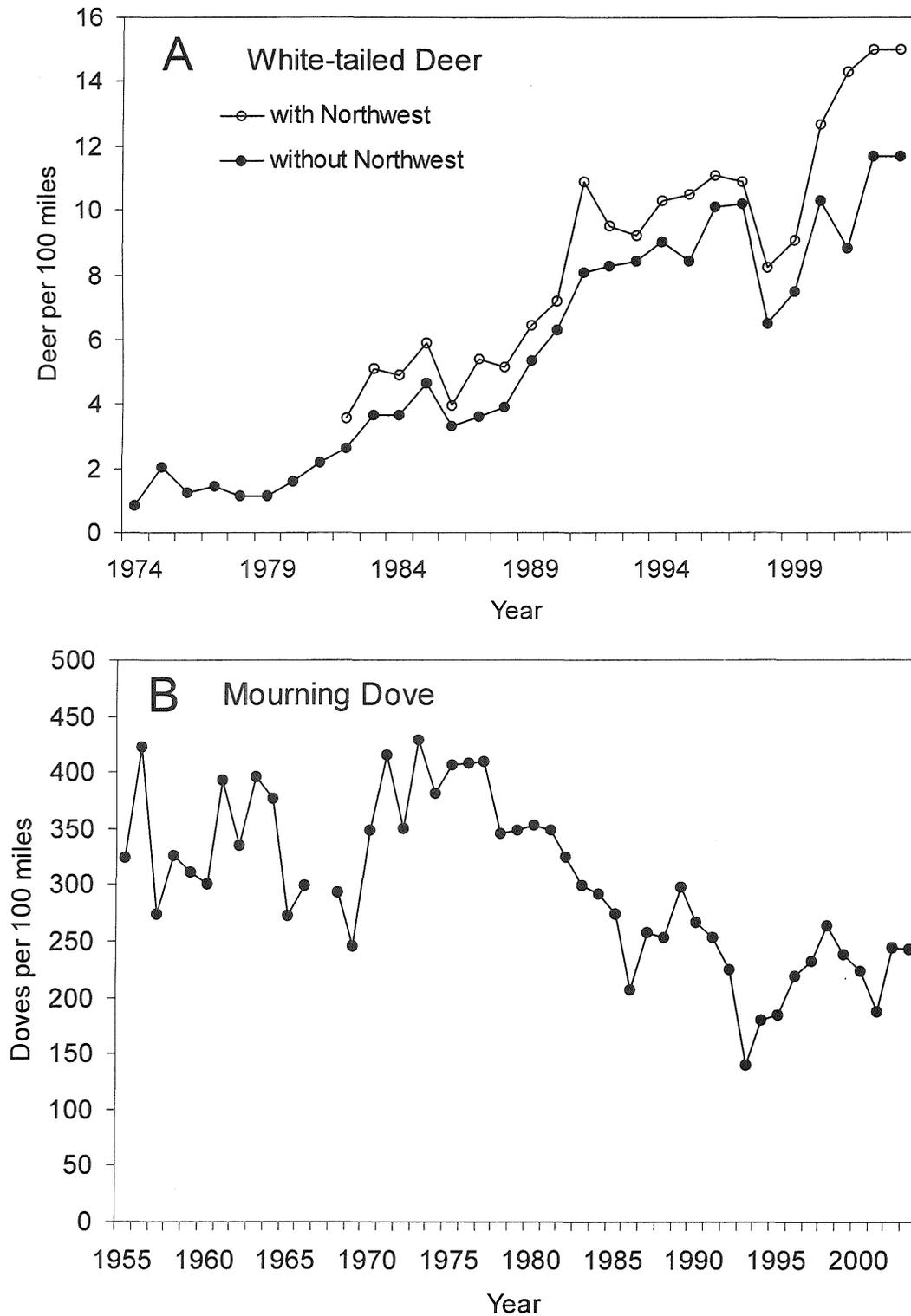
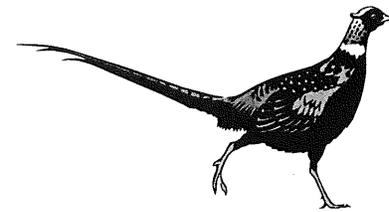


Figure 4. Statewide index of white-tailed deer (A) and mourning doves (B) seen per 100 miles driven. Doves were not counted in 1967 and the dove index does not include the Northwest region. Based on all survey routes completed.



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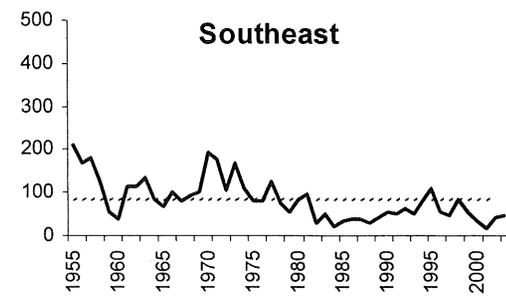
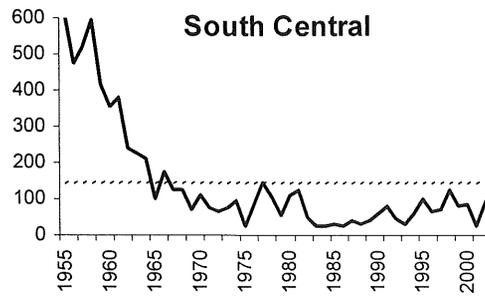
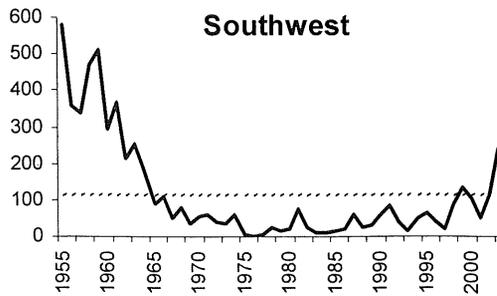
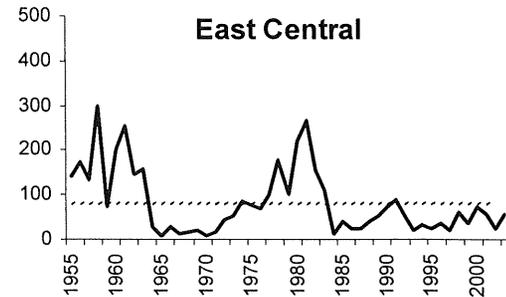
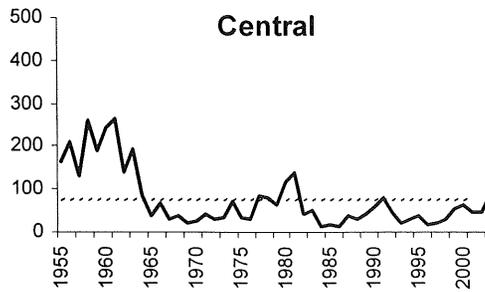
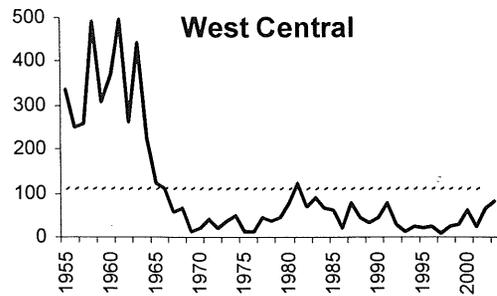


Figure 5. Regional index (—) and long-term average (.....) of ring-necked pheasants seen per 100 miles driven, Minnesota August roadside survey (1955-present). Based on all survey routes completed.

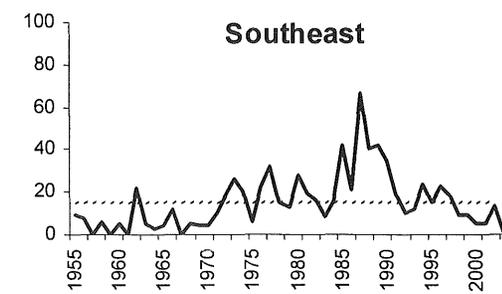
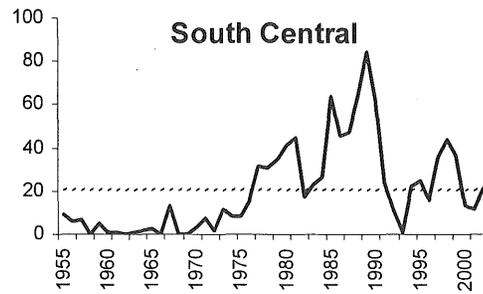
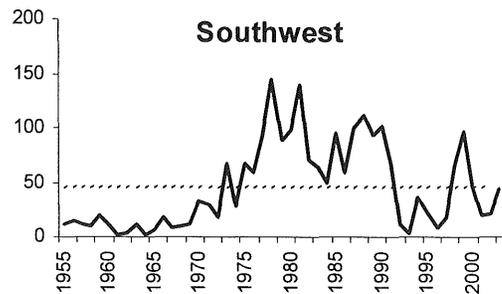
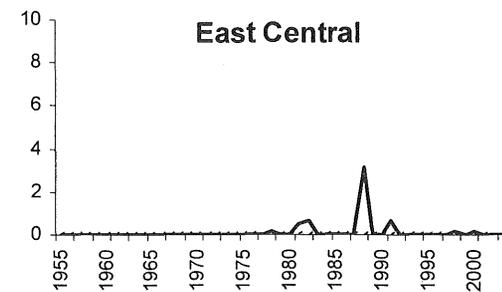
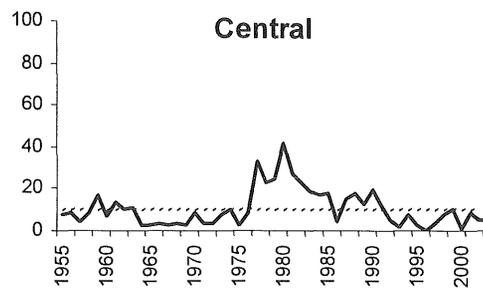
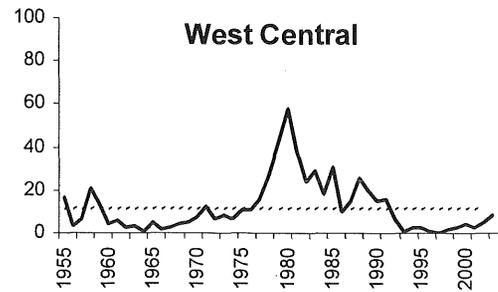
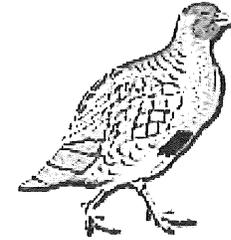
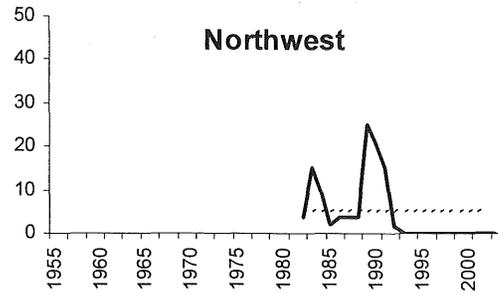


Figure 6. Regional index (—) and long-term average (.....) of gray partridge seen per 100 miles driven, Minnesota August roadside survey (1955-present). Based on all survey routes completed. Note: scale of vertical axis is not the same among survey regions.

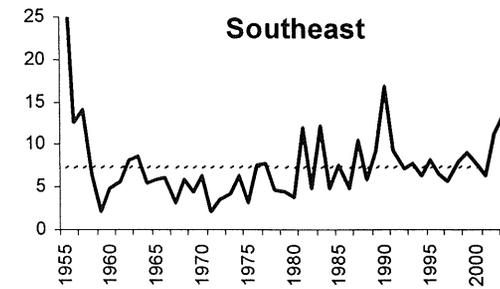
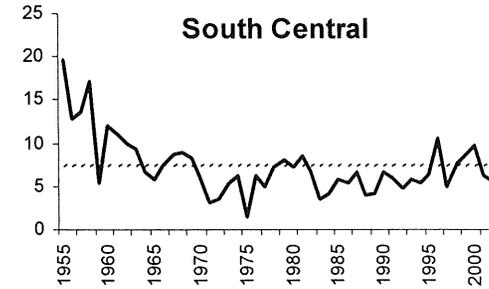
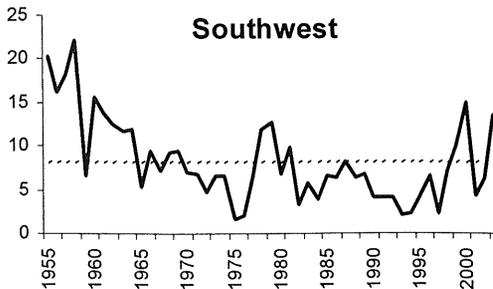
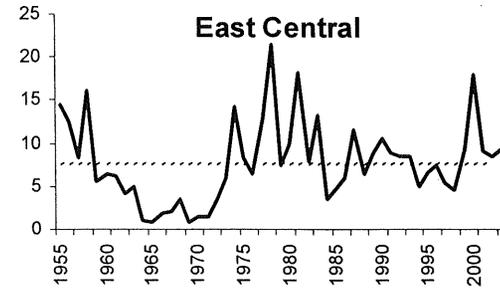
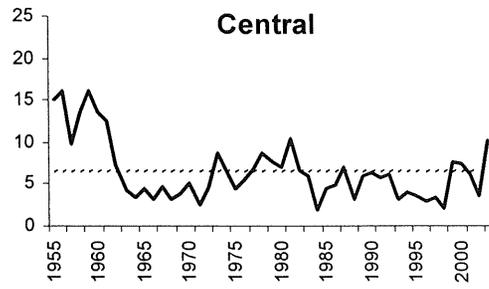
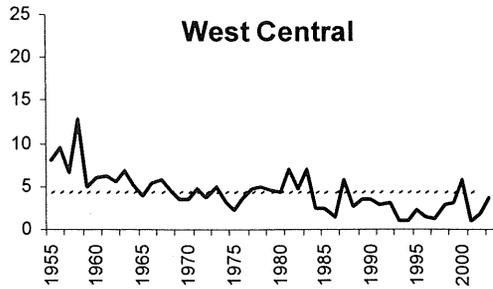
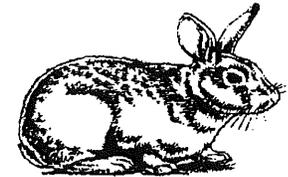
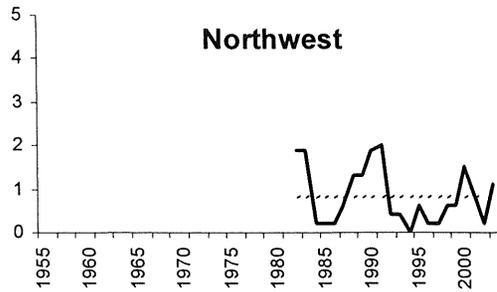


Figure 7. Regional index (—) and long-term average (.....) of cottontail rabbits seen per 100 miles driven, Minnesota August roadside survey (1955-present). Based on all survey routes completed. Note: scale of vertical axis is not the same among survey regions.

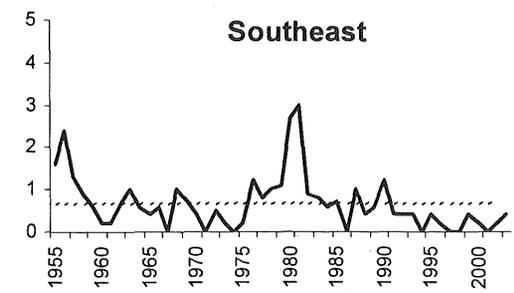
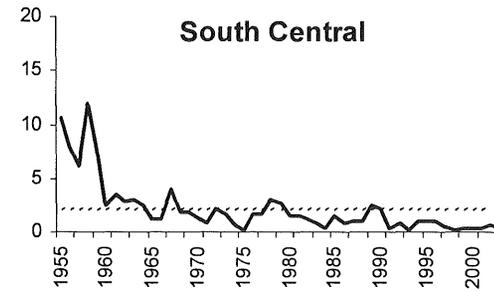
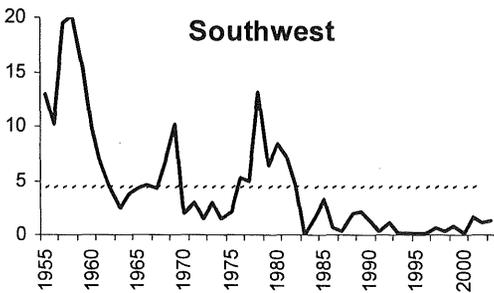
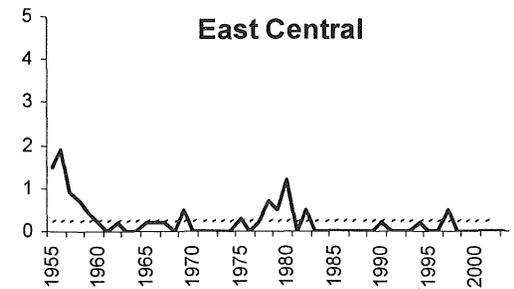
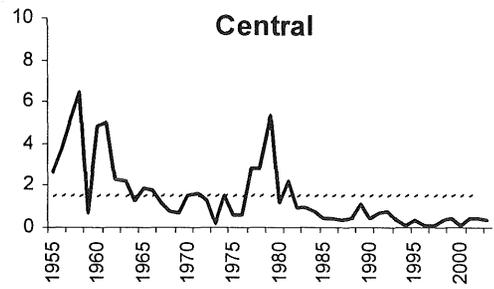
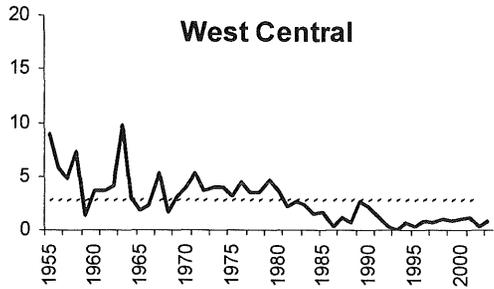
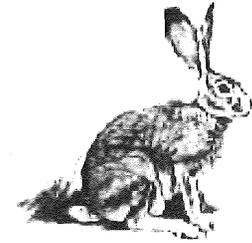
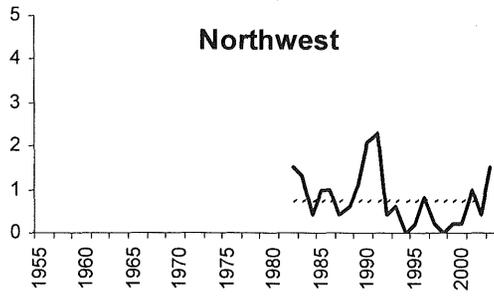


Figure 8. Regional index (—) and long-term average (.....) of white-tailed jackrabbits seen per 100 miles driven, Minnesota August roadside survey (1955-present). Based on all survey routes completed. Note: scale of vertical axis is not the same among survey regions.

Table 1. Abundance (total acres) and density (acres/mi²) of undisturbed grassland habitat within the pheasant range, 2003^a.

AGREG	Cropland retirement					USFWS				Total	%	Density (ac/mi ²)
	CRP	CREP	RIM	RIM-WRP	WRP	WPA	Easement	Refuge	DNR WMA			
WC	370,472	38,209	14,325	1,116	2,167	101,022	49,022	11,520	95,507	683,359	10.1	64.4
SW	128,296	21,983	9,786	579	325	11,229	1,926	354	49,265	223,743	5.9	37.8
C	137,581	14,473	14,840	864	1,480	33,127	9,563	31,232	41,631	284,790	4.7	30.2
SC	101,757	26,087	9,882	3,437	4,414	4,478	2,015	0	29,168	181,237	4.5	28.7
SE	85,986	0	4,841	485	293	76	0	0	44,065	135,745	3.7	23.4
EC	5,111	0	780	0	4	0	0	10,297	82,163	98,355	3.1	19.6
Total	829,203	100,752	54,452	6,482	8,683	149,931	62,526	53,403	341,799	1,607,229	5.8	37.3

^aUnpublished data, Kevin Lines (BOWSR) and Kurt Haroldson (MNDNR), 31 December 2002.

Table 2. Statewide trends (% change) in wildlife observed per 100 miles driven, Minnesota August roadside survey, 1955-2003.

Species Subgroup	Change from 2002 ^a					Change from 10-year average ^b				Change from long-term average ^c			
	<i>n</i>	2002	2003	%	95% CI	<i>n</i>	1993-02	%	95% CI	<i>n</i>	LTA	%	95% CI
Ring-necked pheasant													
Total pheasants	152	65.9	108.7	65	±24	151	50.5	117	±32	139	106.9	6	±18
Cocks		5.1	8.9	73	±26		4.4	105	±30		12.3	-25	±14
Hens		8.2	15.2	84	±27		6.7	126	±36		15.4	3	±18
Broods		9.6	16.8	72	±23		7.6	123	±33		13.6	29	±20
Chicks per brood		5.4	5.0	-6			5.3	-5			5.7	-11	
Broods per 100 hens		118.5	110.9	-6			114.2	-3			101.6	9	
Median hatch date		Jun 07	Jun 07				Jun 07						
Gray partridge													
Total partridge	171	9.7	12.8	31	±51	170	10.8	19	±34	139	17.8	-14	±25
Adults		2.2	3.0	38	±48		2.8	7	±27		4.5	-19	±19
Broods		0.9	1.1	12	±48		1.0	4	±29		1.5	-17	±23
Chicks per brood		8.1	9.3	16			8.4	12			9.0	3	
Broods per 100 adults		43.5	35.4	-19			34.2	4			33.5	6	
Median hatch date		Jun 30	Jun 22				Jun 24						
Eastern cottontail	171	4.9	9.4	93	±31	170	4.9	92	±30	139	6.8	60	±25
White-tailed jackrabbit	171	0.5	0.6	29	±80	170	0.4	49	±71	139	2.1	-76	±17
White-tailed deer	171	15.2	15.1	0	±21	170	11.2	35	±22	145	5.5	111	±37
Mourning dove	171	227.6	225.8	-1	±13	170	198.9	14	±12	139	284.4	-12	±12

^a Includes Northwest region, except for pheasants. Estimates based on routes (*n*) surveyed in both years.

^b Includes Northwest region, except for pheasants. Estimates based on routes (*n*) surveyed at least 9 of 10 years.

^c LTA = 1955-2002, except for deer = 1974-2002. Does not include Northwest region (8 counties in Northwest were added to survey in 1982). Estimates for all species except deer based on routes (*n*) surveyed ≥40 years; estimates for deer based on routes surveyed ≥25 years.

Table 3. Regional trends (% change) in wildlife observed per 100 miles driven, Minnesota August roadside survey, 1955-2003.

Region Species	Change from 2002 ^a				Change from 10-year average ^b				Change from long-term average ^c				
	<i>n</i>	2002	2003	%	95% CI	<i>n</i>	1993-02	%	95% CI	<i>n</i>	LTA	%	95% CI
Northwest^d													
Gray partridge	19	0.0	0.0			19	0.0			17	3.6	-100	±68
Eastern cottontail		0.2	1.1	398	±891		0.5	101	±324		0.8	44	±235
White-tailed jackrabbit		0.4	1.5	250	±368		0.4	288	±339		0.8	117	±201
White-tailed deer		42.3	41.7	-2	±49		27.6	51	±55		22.7	90	±73
Mourning dove		72.0	87.0	21	±70		83.8	4	±40		140.9	-37	±28
West Central													
Ring-necked pheasant	36	65.6	84.5	29	±50	35	30.6	184	±77	33	116.0	-21	±27
Gray partridge		4.8	8.8	84	±182		2.3	299	±307		11.6	-18	±55
Eastern cottontail		1.8	3.9	119	±92		2.2	85	±70		4.5	-15	±32
White-tailed jackrabbit		0.4	0.8	75	±134		0.7	20	±86		2.9	-75	±20
White-tailed deer		12.8	13.2	3.4	±46		12.2	11	±43	32	7.6	61	±67
Mourning dove		309.1	294.8	-5	±27		307.7	-3	±26	33	418.4	-29	±22
Central													
Ring-necked pheasant	31	46.9	88.1	88	±52	31	37.7	134	±63	24	78.0	24	±44
Gray partridge		5.3	5.0	-6	±120		4.8	6	±85		11.0	-62	±56
Eastern cottontail		3.5	10.1	189	±129		4.4	130	±91		6.6	69	±76
White-tailed jackrabbit		0.4	0.3	-34	±229		0.3	2	±168		1.5	-78	±34
White-tailed deer		7.9	8.2	4	±58		5.4	53	±79	30	3.4	147	±129
Mourning dove		173.0	178.7	3	±36		178.4	0	±32	24	241.2	-28	±31
East Central													
Ring-necked pheasant	14	30.9	56.0	82	±81	14	44.4	26	±81	12	87.5	-36	±43
Gray partridge		0.0	0.0				0.1	-100	±147		0.0		
Eastern cottontail		9.1	9.4	3	±71		8.8	7	±63		8.3	21	±67
White-tailed jackrabbit		0.0	0.0				0.0				0.3	-100	±69
White-tailed deer		23.2	15.7	-32	±69		11.6	36	±65	14	6.3	151	±136
Mourning dove		74.9	85.7	15	±49		90.6	-5	±40	12	133.9	-35	±44

Table 3. (Cont.)

Region Species	Change from 2002					Change from 10-year average				Change from long-term average			
	<i>n</i>	2002	2003	%	95% CI	<i>n</i>	1993-02	%	95% CI	<i>n</i>	LTA	%	95% CI
Southwest													
Ring-necked pheasant	19	113.2	243.8	115	±64	19	68.1	258	±102	19	109.1	123	±69
Gray partridge		20.8	44.9	115	±106		33.6	34	±58		45.5	-1	±36
Eastern cottontail		6.4	13.5	110	±64		6.1	122	±72		8.2	64	±52
White-tailed jackrabbit		1.1	1.3	18	±176		0.6	121	±315		4.4	-71	±41
White-tailed deer		15.4	14.5	-6	±59		9.4	55	±71		6.4	127	±101
Mourning dove		313.5	342.4	9	±30		238.7	44	±33		310.1	10	±30
South Central													
Ring-necked pheasant	32	88.0	136.7	55	±41	32	72.9	88	±56	31	141.2	-6	±29
Gray partridge		20.6	26.2	27	±92		22.2	18	±59		20.8	30	±75
Eastern cottontail		5.6	15.1	170	±65		7.0	115	±52		7.3	109	±46
White-tailed jackrabbit		0.6	0.3	-60	±148		0.5	-53	±79		2.1	-88	±32
White-tailed deer		6.9	8.0	17	±74		4.4	83	±79	30	2.8	194	±131
Mourning dove		290.5	256.3	-12	±27		196.4	31	±27	31	253.5	3	±25
Southeast													
Ring-necked pheasant	20	40.6	48.2	19	±55	20	57.0	-16	±46	20	83.2	-42	±43
Gray partridge		13.4	1.0	-93	±99		13.3	-93	±47		15.7	-94	±28
Eastern cottontail		11.4	13.4	18	±58		7.7	75	±90		7.8	71	±87
White-tailed jackrabbit		0.2	0.4	100	±479		0.2	122	±385		0.7	-43	±109
White-tailed deer		12.4	15.4	24	±61		15.4	0	±35		8.3	86	±71
Mourning dove		238.3	244.9	3	±43		191.3	28	±35		228.7	7	±31

^a Based on routes (*n*) surveyed in both years.

^b Based on routes (*n*) surveyed at least 9 of 10 years.

^c LTA = 1955-2002, except for Northwest region (1982-2002) and white-tailed deer (1974-2002). Estimates based on routes (*n*) surveyed ≥40 years (1955-2002), except for Northwest (≥20 years) and white-tailed deer (≥25 years).

^d Eight Northwestern counties (19 routes) were added to August roadside survey in 1982.

Table 4. Greater prairie-chicken spring booming ground counts for 14 northwestern counties, 1991-2002. (Counts summarized by AWM Terry Wolfe, Crookston).

County	Number of booming males (Number of booming grounds)											
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Becker	30 (3)	69 (6)	58 (10)	21 (3)	20 (3)	2 (1)	14 (1)	51 (5)	9 (1)	8 (1)	16 (2)	51 (7)
Cass	52 (12)	55 (10)	38 (8)	30 (5)	18 (5)	17 (2)	7 (2)	8 (3)	9 (3)	8 (3)	8 (2)	7 (2)
Chippewa	0	0	0	0	0	0	0	0	0	6 (1)	0	5 (1)
Clay	441(28)	654(45)	366(36)	306(31)	422(38)	539(46)	335(32)	411(39)	454(32)	541(44)	465(45)	773(54)
Hubbard	24(5)	18(2)	17(3)	14(3)	9(3)	9(3)	3(1)	2(1)	3(1)	3(1)	0	0
Lac qui Parle	0	0	0	0	0	0	0	0	0	4(1)	5(1)	7(1)
Mahnomen	21(3)	143(13)	76(76)	31(4)	21(6)	11(2)	53(4)	32(3)	0	0	0	59(5)
Norman	215(12)	339(15)	221(26)	248(25)	278(30)	314(37)	160(19)	260(26)	274(25)	263(29)	304(36)	471(44)
Ottertail	1(1)	4(1)	16(2)	5(1)	0	28(3)	19(3)	58(7)	56(7)	75(8)	49(6)	105(7)
Polk	267(25)	311(27)	190(22)	189(18)	228(27)	197(19)	154(21)	251(25)	239(21)	302(33)	195(23)	421(37)
Red Lake	38(6)	38(5)	12(2)	21(3)	25(4)	32(4)	33(6)	21(3)	40(6)	51(7)	19(3)	47(6)
Swift											5(1)	2(1)
Traverse												4(1)
Wadena	145(21)	38(7)	43(8)	12(4)	9(2)	15(3)	18(2)	0	0	12(2)	0	0
Wilkin	228(13)	244(13)	142(11)	207(12)	213(16)	283(19)	138(12)	368(22)	335(21)	296(17)	279(21)	361(23)
Total	1432 (129)	1913 (144)	1179 (138)	1084 (109)	1274 (133)	1447 (142)	934 (103)	1462 (134)	1419 (117)	1569 (147)	1345 (140)	2313 (188)
Males/ground	11.1	13.3	8.5	9.9	9.6	10.2	9.1	10.9	12.1	10.7	9.6	12.3

Note: Data include only grounds on which counts were conducted. In several counties booming grounds were located but counts were not made, they are not included in the data presented.

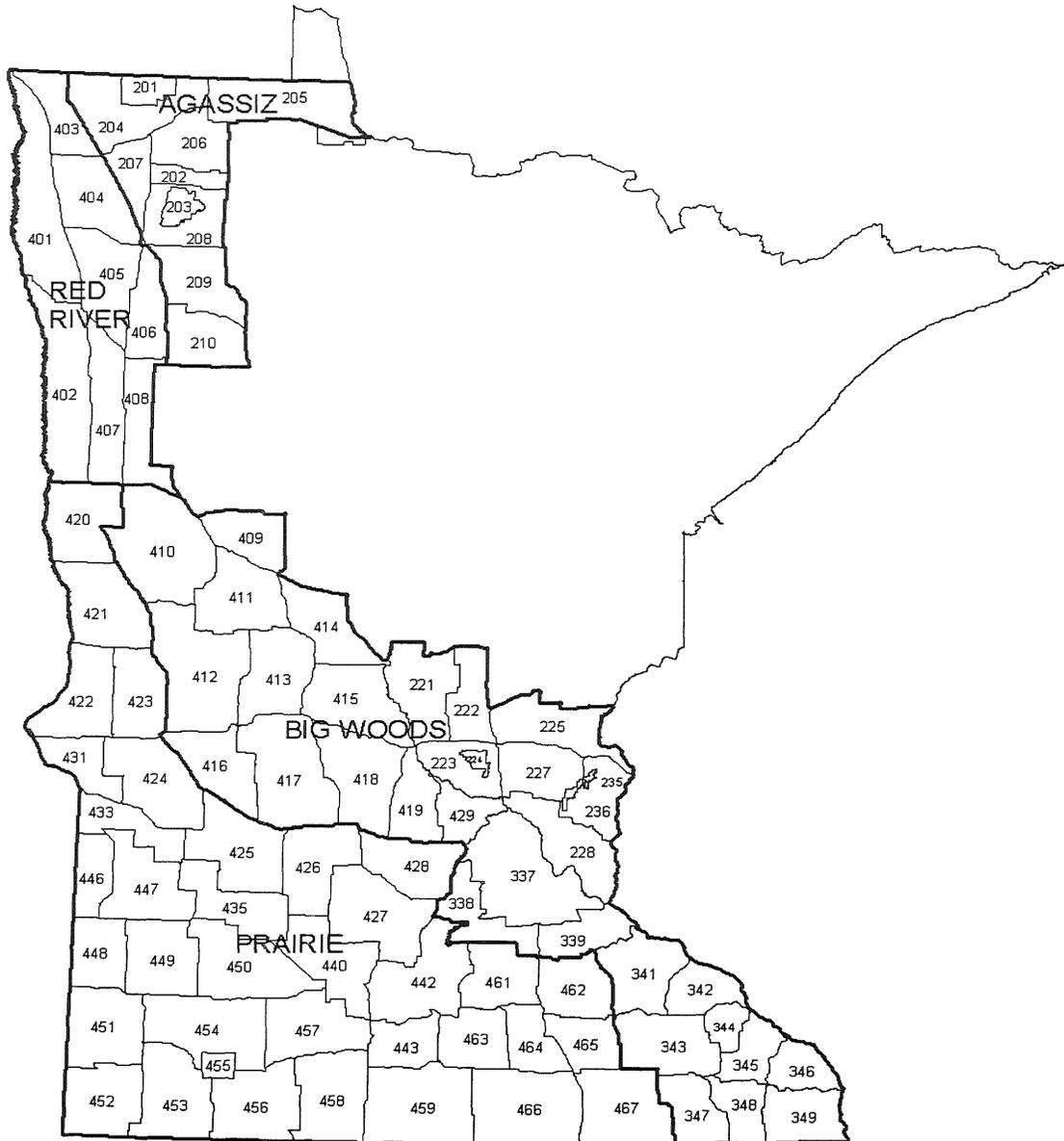


Figure 9. Deer Permit Areas in Minnesota's Farmland zone, 2003.

Table 5. Reproductive Performance of white-tailed deer in Minnesota for the Northwest^a Deer Management Unit, 1980-2003.

Year	Fawns			Adults		
	N	Percent Pregnant	Fetuses per doe	N	Percent Pregnant	Fetuses per doe
1980	8	50	0.6	12	92	1.7
1981	4	0	0.0	11	100	1.7
1982	6	67	0.7	18	94	1.8
1983	15	27	0.3	26	85	1.6
1984	10	40	0.6	23	87	1.7
1985	6	17	0.2	11	91	1.7
1986	3	0	0.0	6	83	1.3
1987	3	0	0.0	5	100	1.6
1988	3	33	0.3	4	50	0.8
1989	14	21	0.3	27	93	1.7
1990	18	22	0.2	29	93	1.7
1991	11	9	0.1	15	87	1.6
1992	13	8	0.1	24	96	1.6
1993	7	0	0.0	11	100	1.6
1994	7	14	0.1	13	92	1.4
1995	4	25	0.3	6	100	2.0
1996	5	0	0.0	21	81	1.3
1997	4	0	0.0	12	100	1.5
1998	3	0	0.0	7	86	1.6
1999	5	0	0.0	14	100	1.6
2000	7	14	0.1	11	100	2.0
2001	4	0	0.0	8	100	1.8
2002	7	14	0.1	13	100	1.8
2003	0	0	0.0	3	100	1.7
Mean (1980's)		26	0.3		88	1.6
Mean (1990's)		8	0.1		94	1.6
Mean (2000's)		7	0.1		100	1.8

^a Red River (East and West and Agassiz DMU's were combined into the Northwest DMU due to the small sample sizes.

Table 6. Reproductive performance of white-tailed deer in Minnesota for the Big Woods Deer Management Unit ^a, 1978-2003.

Year	Fawns			Adults		
	N	Percent Pregnant	Fetuses per doe	N	Percent Pregnant	Fetuses per doe
1978	74	47	0.5	113	96	1.8
1979	87	30	0.3	119	92	1.7
1980	87	61	0.7	107	97	1.8
1981	78	58	0.6	132	92	1.7
1982	95	43	0.5	197	95	1.8
1983	83	55	0.7	167	95	1.8
1984	77	22	0.3	123	95	1.8
1985	60	50	0.6	105	96	1.8
1986	79	37	0.4	116	88	1.6
1987	45	44	0.5	146	94	1.8
1988	14	64	0.8	31	97	1.8
1989	51	31	0.3	85	96	1.8
1990	96	32	0.3	125	95	1.8
1991	50	20	0.2	71	96	1.8
1992	67	24	0.3	100	95	1.8
1993	47	38	0.4	95	93	1.7
1994	46	15	0.2	99	94	1.7
1995	21	19	0.2	54	91	1.8
1996	59	15	0.2	112	96	1.8
1997	40	33	0.4	96	88	1.6
1998	53	23	0.3	109	91	1.7
1999	49	37	0.4	95	91	1.6
2000	62	23	0.3	76	91	1.6
2001	36	14	0.1	65	94	1.7
2002	70	23	0.3	97	95	1.8
2003	66	20	0.2	90	91	1.6
Mean (1980's)		47	0.5		95	1.8
Mean (1990's)		26	0.3		93	1.7
Mean (2000's)		20	0.2		93	1.7

^a The majority of samples (approximately 85%) from this Deer Management Unit were obtained from the Big Woods Metro sub-unit. Consequently, the data reported in this table may not reflect reproductive performances throughout the remainder of the Big Woods Management Unit.

Table 7. Reproductive performance of white-tailed deer in Minnesota for the Prairie Deer Management Unit, 1978-2003.

Year	Fawns			Adults		
	N	Percent Pregnant	Fetuses per doe	N	Percent Pregnant	Fetuses per doe
1978	25	44	0.6	69	100	1.9
1979	83	34	0.4	92	90	1.8
1980	51	63	0.7	55	91	1.7
1981	57	44	0.5	65	92	1.8
1982	50	46	0.6	85	94	1.9
1983	42	62	0.9	51	96	1.9
1984	30	23	0.3	69	84	1.6
1985	21	38	0.4	49	94	1.9
1986	25	64	0.8	56	93	1.7
1987	27	52	0.6	47	94	0.9
1988	20	40	0.5	16	100	1.9
1989	37	38	0.4	54	89	1.7
1990	43	42	0.4	62	97	1.8
1991	30	20	0.2	67	94	1.8
1992	37	19	0.2	51	94	1.9
1993	39	38	0.4	75	93	1.8
1994	32	16	0.2	46	98	1.9
1995	39	21	0.3	50	92	1.7
1996	28	14	0.1	30	90	1.6
1997	26	4	0.0	49	92	1.7
1998	18	17	0.2	38	97	1.7
1999	26	19	0.2	47	96	1.7
2000	13	23	0.4	23	87	1.6
2001	18	6	0.1	39	87	1.5
2002	19	32	0.4	26	92	1.7
2003	18	22	0.2	123	93	1.7
Mean (1980's)		47	0.5		93	1.7
Mean (1990's)		21	0.2		94	1.8
Mean (2000's)		21	0.3		90	1.6

Table 8. Pre-fawning deer density estimates ^a (deer/mi²) by deer management unit (DMU), sub-unit (DMSU), and permit area (PA) in Minnesota's Farmland Zone, 1993-2003.

DMU	DMSU	PA	Area mi ²	Pre-fawning density										
				1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Red River	West	401	1039	1.9	2.1	2.3	2.2	1.8	1.7	1.7	1.8	1.9	1.7	1.7
		402	1021	2.9	3.0	3.3	2.9	2.5	2.7	2.7	2.6	2.5	1.9	1.3
		total	2060	2.4	2.5	2.8	2.5	2.2	2.2	2.2	2.2	2.2	1.8	1.5
	East	403	396	5.6	5.8	6.1	5.1	4.8	5.0	5.1	5.2	5.1	4.8	4.1
		404	631	5.9	6.1	6.4	5.5	4.9	5.1	4.9	4.7	4.2	3.1	2.3
		405	654	5.9	5.7	6.0	5.1	4.5	4.8	4.8	4.8	4.5	3.5	2.5
		406	413	9.4	10.2	11.4	10.1	8.5	8.6	8.4	8.4	7.9	6.0	4.5
		407	618	7.1	7.3	7.5	6.5	5.8	5.5	5.4	5.5	5.1	4.3	2.6
		408	494	6.9	7.1	7.2	6.1	5.5	5.6	5.4	5.5	5.4	5.1	4.3
		total	3206	6.7	6.9	7.3	6.2	5.5	5.6	5.5	5.5	5.2	4.3	3.2
		Red River Total		5266	5.0	5.2	5.5	4.8	4.2	4.3	4.2	4.2	4.0	3.3
Agassiz		201	155	5.9	5.2	4.3	3.3	3.0	4.1	5.2	6.6	8.2	9.7	4.3
		202	156	10.9	10.1	9.8	7.4	6.3	7.6	8.7	9.7	10.5	10.0	9.2
		203	108	12.3	10.4	8.4	4.8	4.4	5.7	6.9	8.4	10.4	12.6	15.3
		204	718	7.0	7.2	7.1	5.9	5.0	5.6	5.9	6.1	6.1	5.6	5.4
		205	642	10.8	11.3	11.1	8.7	7.2	8.2	8.7	9.1	9.0	8.6	11.1
		206	471	8.1	7.9	8.0	6.4	5.3	5.7	6.2	6.7	6.9	6.2	4.7
		207	300	8.1	7.6	7.2	5.8	5.2	5.7	6.1	6.4	6.3	5.9	5.3
		208	448	3.9	3.7	3.4	2.5	2.2	2.7	3.1	3.4	3.6	3.4	3.3
		209	576	5.3	5.5	5.7	4.8	4.4	4.8	4.8	4.7	4.5	3.9	3.2
		210	485	9.4	9.8	9.9	8.5	7.7	8.0	8.0	7.6	6.9	5.7	4.0
Agassiz Total		4059	7.6	7.6	7.4	6.0	5.3	5.9	6.3	6.6	6.6	6.2	5.9	
Big Woods	North	409	417	19.1	21.5	23.7	24.5	22.2	20.0	19.4	19.3	14.7	9.2	2.0
		410	924	11.3	11.8	12.1	11.6	10.8	10.7	11.4	11.7	11.4	10.6	9.6
		411	642	15.8	16.7	17.7	17.1	16.0	15.9	16.0	15.9	14.9	12.4	9.4
		412	989	9.4	9.6	9.8	9.4	8.7	8.5	9.1	9.3	9.2	9.4	10.1
		413	644	11.2	12.0	12.7	12.6	11.7	11.8	11.6	11.9	11.8	10.8	8.7

Table 8 (cont).

DMU	DMSU	PA	Area mi ²	Pre-fawning density										
				1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Big Woods	North (cont)	414	557	13.1	14.0	15.1	14.9	14.8	14.5	14.2	13.7	12.4	10.9	8.9
		415	702	7.4	8.1	8.6	8.5	8.1	7.9	8.0	8.1	7.8	7.6	7.2
		416	544	7.7	8.6	8.6	8.6	8.1	7.7	7.5	7.0	6.6	6.0	6.0
		417	939	7.7	8.0	8.3	8.7	7.9	7.2	7.2	7.2	7.1	7.4	7.9
		418	760	6.6	6.9	7.1	7.1	6.7	6.5	6.9	6.8	7.0	7.3	8.0
		419	393	8.0	8.7	8.9	8.9	8.2	7.0	7.0	7.6	7.9	8.1	8.9
		429	288	4.9	5.3	5.1	5.2	5.0	4.7	5.1	5.7	6.1	6.6	7.4
		total	7799	10.1	10.7	11.2	11.1	10.4	10.0	10.2	10.2	9.7	9.0	8.2
	Central	221	642	7.8	7.9	8.5	8.4	8.4	8.6	9.2	9.8	9.4	9.4	9.2
		222	412	11.7	11.6	12.5	12.0	11.9	12.4	12.9	13.5	13.3	13.5	13.4
		223	376	11.0	11.8	12.4	11.9	11.7	11.4	11.2	11.8	11.6	11.7	11.9
		224	48	12.5	13.4	14.5	14.3	15.1	16.3	16.9	18.4	20.1	21.7	23.9
		225	619	15.2	15.5	16.6	15.8	15.9	15.5	15.8	16.1	15.9	15.6	16.0
		total	2097	11.4	11.7	12.5	12.1	12.0	12.1	12.4	12.9	12.7	12.7	12.9
	Metro ^b	227	472	13.9	14.5	15.4	12.3	12.5	12.4	13.2	13.8	14.8	15.9	18.7
		235	33	13.7	13.7	14.3	13.7	14.7	15.7	20.3	24.7	30.6	39.8	54.2
		236	374	13.7	14.3	15.0	15.5	15.4	14.9	15.8	16.6	17.9	19.8	22.9
		338	452	4.5	4.4	4.3	4.4	4.0	3.7	3.8	4.2	4.7	5.4	7.0
		339	395	5.0	5.5	5.4	5.5	5.1	4.8	5.1	5.6	6.4	7.6	9.7
		total	1726	8.9	9.3	9.6	9.4	9.3	9.0	9.6	10.2	11.2	12.6	15.2
	Southeast	341	611	7.4	8.0	8.3	8.7	88.8	8.9	9.0	9.2	9.2	10.4	11.5
		342	352	10.4	10.7	10.8	10.2	10.5	11.5	12.0	12.6	13.0	14.8	17.3
		343	663	7.1	7.4	7.7	8.1	8.4	8.2	8.7	9.4	9.9	11.6	13.6
		344	189	17.9	17.7	17.3	17.0	15.7	14.7	14.1	14.6	15.0	17.2	20.1
		345	326	11.0	10.9	10.8	10.7	11.1	11.5	11.8	12.1	11.8	13.0	14.7
		346	319	16.3	16.0	16.0	16.7	17.4	17.0	17.3	17.9	17.9	18.8	20.1
		347	434	9.0	9.3	9.3	9.6	9.8	9.6	9.8	10.3	10.6	12.1	13.3

Table 8 (cont).

DMU	DMSU	PA	Area mi ²	Pre-fawning density										
				1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Big Woods	Southeast (cont)	348	332	15.3	15.5	16.0	16.6	17.0	17.3	16.9	16.9	16.1	16.5	17.5
		349	492	11.2	11.4	11.8	12.5	13.0	14.0	14.6	15.2	14.8	15.8	17.1
		total	3718	10.6	10.8	11.0	11.3	11.6	11.7	12.0	12.4	12.5	13.8	15.4
Big Woods Total			15340	10.3	10.7	11.2	11.1	10.8	10.6	10.8	11.1	11.0	11.1	11.3
Prairie	North	420	651	3.7	3.6	3.5	3.3	2.9	2.7	3.0	3.2	3.2	3.2	3.5
		421	749	3.3	3.2	3.1	2.9	2.5	2.3	2.4	2.6	2.7	2.8	3.3
		422	634	2.8	2.7	2.6	2.5	2.2	2.4	2.6	2.6	2.8	3.1	3.9
		423	531	3.9	4.0	3.9	4.0	3.6	3.4	3.3	3.2	3.4	3.4	4.1
		424	766	5.3	5.5	5.5	6.1	4.8	4.0	3.7	3.4	3.2	3.3	3.7
		425	779	2.4	2.4	2.3	2.1	1.6	1.5	1.6	1.7	2.0	2.6	3.6
		426	614	3.7	3.8	3.5	3.1	2.8	2.7	2.7	2.8	3.1	3.4	4.0
		427	837	2.5	2.4	2.3	2.0	1.7	1.7	1.8	2.0	2.3	2.8	3.6
		428	550	3.9	3.9	3.9	3.9	3.5	3.5	3.7	3.8	4.2	4.8	6.0
		total	6111	3.5	3.5	3.4	3.3	2.8	2.6	2.7	2.8	2.9	3.2	3.9
Prairie	River	431	360	6.5	7.0	7.0	7.9	7.0	6.2	5.7	4.7	4.0	3.4	2.7
		433	397	9.3	10.2	10.7	11.1	10.1	9.6	9.1	8.8	8.2	8.1	8.5
		435	575	5.6	5.8	6.0	6.3	5.5	5.2	5.0	4.7	4.4	4.1	4.0
		440	662	4.0	4.4	4.6	4.7	4.4	4.2	4.2	4.1	4.0	3.8	3.7
		442	806	4.4	4.7	4.9	4.8	4.2	4.0	4.1	4.2	4.0	3.9	3.7
		443	386	6.0	6.7	7.1	7.2	6.6	6.1	5.8	5.4	4.9	4.8	4.5
		total	3186	5.6	6.0	6.3	6.5	5.8	5.5	5.3	5.0	4.7	4.5	4.3
		Prairie	Southwest	446	345	5.6	6.0	6.5	6.9	6.7	6.4	6.3	6.1	6.0
447	675			2.8	2.7	2.9	2.9	2.7	2.7	2.8	3.1	3.4	3.9	4.8
448	447			3.9	3.9	3.7	3.8	3.5	3.5	3.8	4.9	6.1	7.3	9.2
449	625			4.1	4.2	4.2	4.0	3.6	3.4	3.6	4.4	5.6	6.7	8.4
450	816			1.9	2.1	2.1	2.0	1.8	1.7	1.9	1.9	2.0	2.2	2.7
451	687			2.6	2.7	2.7	3.1	2.8	2.6	2.7	2.7	2.9	3.2	3.9
452	637			2.4	2.5	2.8	3.1	3.0	2.8	2.8	2.8	2.6	2.5	2.5

Table 8 (cont).

DMU	DMSU	PA	Area mi ²	Pre-fawning density										
				1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Prairie	Southwest (cont)	453	729	2.2	2.3	2.4	2.5	2.2	2.2	2.5	2.8	3.1	3.8	4.9
		454	840	3.5	3.7	3.8	3.9	3.5	3.4	3.6	3.8	3.9	4.3	5.0
		455	95	4.9	5.2	5.1	5.3	5.0	5.1	5.2	5.0	5.0	5.5	6.2
		456	712	3.3	3.4	3.5	3.6	3.4	3.1	3.2	3.1	3.1	3.3	3.7
		457	666	2.7	2.8	2.7	2.9	2.6	2.5	2.7	2.8	2.8	2.8	3.1
		458	715	2.6	2.9	3.0	3.1	2.7	2.5	2.4	2.4	2.2	2.3	2.4
		459	974	3.1	3.4	3.6	3.8	3.6	3.2	3.3	3.4	3.4	3.8	4.4
		total	8963	3.0	3.2	3.3	3.4	3.1	2.9	3.1	3.2	3.4	3.8	4.5
Prairie	Southeast	461	481	6.5	7.4	7.8	7.9	7.8	7.4	6.8	6.3	5.7	5.4	5.1
		462	506	6.3	7.2	7.7	7.7	7.6	7.7	7.6	6.9	6.3	6.0	5.8
		463	453	3.2	3.4	3.5	3.2	3.2	3.1	3.1	3.1	3.2	3.3	3.4
		464	377	4.0	4.4	4.7	4.6	4.2	4.1	3.9	4.1	4.3	5.0	5.7
		465	385	4.1	4.6	4.9	4.8	4.7	4.5	4.6	4.2	4.2	4.6	5.0
		466	931	3.1	3.4	3.6	3.8	3.7	3.6	3.7	3.5	3.0	3.2	3.5
		467	774	2.9	3.3	3.4	3.4	3.6	3.7	3.7	3.9	3.9	4.2	4.6
		total	3907	4.1	4.6	4.8	4.8	4.8	4.7	4.6	4.4	4.2	4.3	4.6
Prairie Total			22167	3.7	3.9	4.0	4.1	3.7	3.5	3.5	3.6	3.6	3.8	4.3
Farmland Zone Total			46832	6.3	6.6	6.8	6.6	6.2	6.1	6.3	6.4	6.3	6.4	6.6

^aDensity estimates are subject to change as new data are incorporated or the model is revised.

^bExcluding permit areas 228 & 337, which are not modeled.

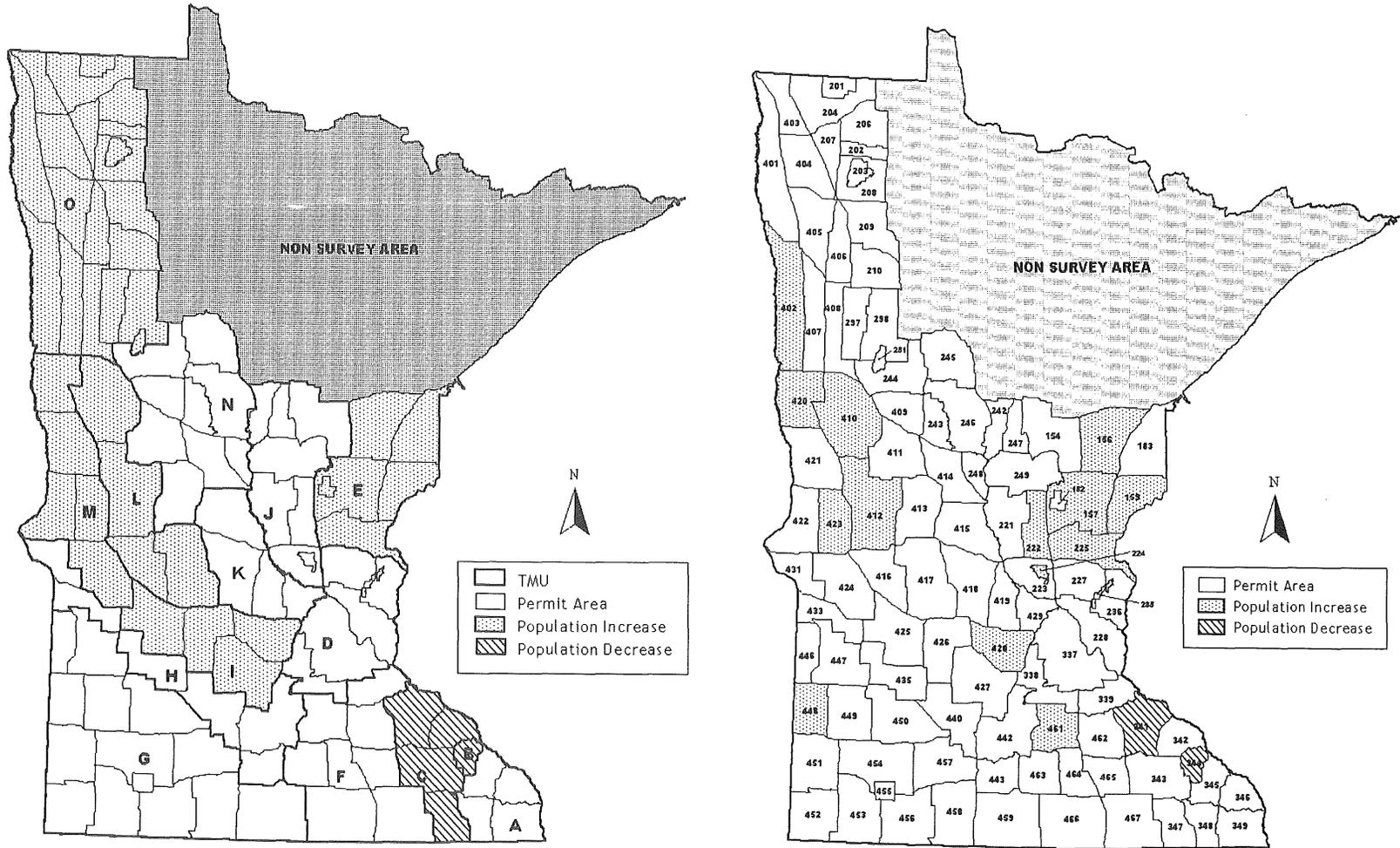


Figure 10. (a) Location of turkey management units (TMUs) and (b) antlerless deer permit areas for the wild turkey survey, Minnesota, Fall, 2002. Shaded areas had a significant increase, and barred areas had a significant decrease in hunters observing wild turkeys (HOWT population index).

Table 9. Percent of antlerless deer hunters observing wild turkeys (HOWT) in Minnesota. By turkey management unit (TMU), 1992-2002. *Note: No survey conducted in 1995, 1996, 1998, 2000, and 2001.*

TMU	Year	Respondents (<i>n</i>)	HOWT	99% CI on HOWT
A	1992	629	62.8	7.0
	1993	637	64.8	7.0
	1994	618	61.2	7.0
	1997	571	64.1	7.2
	1999	591	72.8 ^a	7.0
	2002	511	71.0	7.0
B	1992	473	62.4	13.0
	1993	467	53.1 ^b	8.3
	1994	421	59.6	8.6
	1997	386	58.8	8.9
	1999	409	77.0 ^a	8.4
	2002	314	62.7 ^b	8.8
C	1992	632	52.4	7.6
	1993	637	57.6	7.2
	1994	615	55.0	7.2
	1997	556	64.9 ^a	7.3
	1999	571	75.1 ^a	7.0
	2002	525	65.3 ^b	7.1
D	1992	563	17.1	5.9
	1993	633	17.4	5.6
	1994	633	19.3	5.6
	1997	576	38.0 ^a	6.6
	1999	598	39.8	7.3
	2002	538	46.7	7.6
E	1992	581	3.4	2.8
	1993	647	7.1 ^a	3.3
	1994	638	4.7	3.4
	1997	608	14.1 ^a	4.2
	1999	609	11.8	5.0
	2002	532	18.8 ^a	5.5

Table 9 (continued).

TMU	Year	Respondents (<i>n</i>)	HOWT	99% CI on HOWT
F	1992	583	19.0 ^a	5.3
	1993	594	24.8	6.2
	1994	652	27.6	6.4
	1997	614	36.3 ^a	6.7
	1999	612	46.1 ^a	7.2
	2002	551	48.3	7.6
G	1992	625	3.7	2.5
	1993	644	5.3	3.0
	1994	616	7.6	3.6
	1997	595	14.8 ^a	4.7
	1999	617	21.1 ^a	5.7
	2002	544	26.8	6.5
H	1992	598	16.4	5.4
	1993	655	16.0	5.4
	1994	636	17.1	5.3
	1997	626	31.8 ^a	6.1
	1999	615	45.0 ^a	7.0
	2002	554	48.7	7.5
I	1992	596	4.5	3.8
	1993	569	3.9	3.0
	1994	562	2.7	2.7
	1997	525	9.7 ^a	3.8
	1999	471	18.3 ^a	5.7
	2002	445	26.7 ^a	7.1
J	1992	560	2.1	2.7
	1993	609	1.6	2.1
	1994	539	4.6 ^a	2.7
	1997	559	15.0 ^a	4.5
	1999	589	14.6	5.4
	2002	543	16.6	5.6

Table 9 (continued).

TMU	Year	Respondents (<i>n</i>)	HOWT	99% CI on HOWT
K	1992	600	6.0	3.9
	1993	624	5.6	3.4
	1994	614	8.5	3.7
	1997	578	16.6 ^a	4.9
	1999	612	26.5 ^a	6.1
	2002	534	32.4	7.0
L	1992	653	1.7	2.0
	1993	687	2.5	2.0
	1994	667	4.2	2.5
	1997	675	10.1 ^a	3.6
	1999	615	16.8 ^a	4.9
	2002	589	29.2 ^a	6.2
M	1992	578	2.9 ^b	3.7
	1993	597	3.4	2.6
	1994	613	3.1	2.6
	1997	540	4.8	3.0
	1999	557	5.8	3.5
	2002	501	12.8 ^a	4.6
N	1992	663	2.1	2.0
	1993	710	1.7	1.9
	1994	657	2.3	2.0
	1997	607	4.6	2.7
	1999	614	8.8 ^a	3.7
	2002	578	13.0	4.7
O	1992	576	3.8	2.9
	1993	626	1.9	2.5
	1994	620	2.6	2.2
	1997	553	1.3	2.0
	1999	637	3.5	2.2
	2002	570	8.8 ^a	3.6

^a Significant increase in HOWT from previous survey.

^b Significant decrease from previous survey.

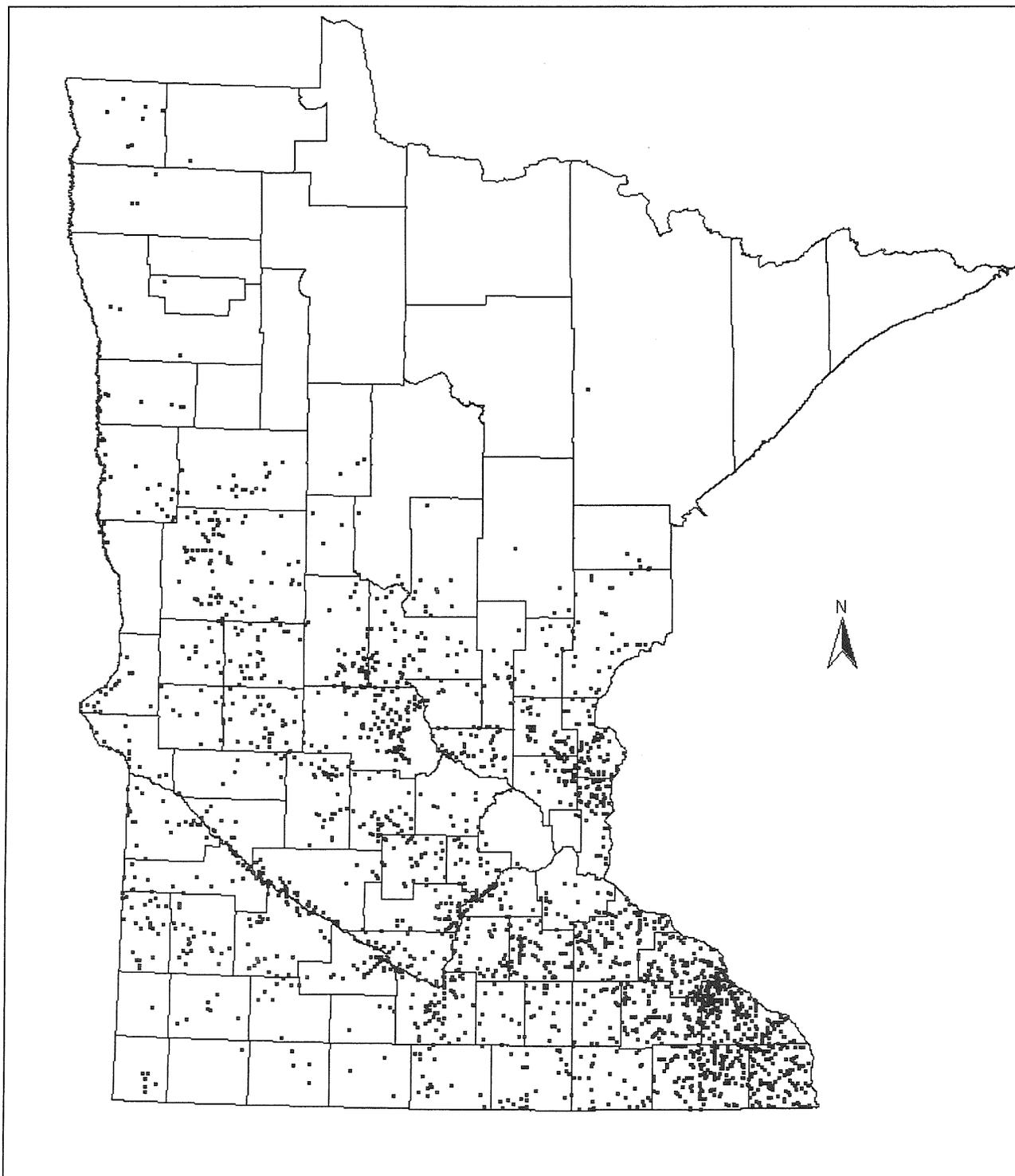


Figure 11. Distribution of wild turkey sightings based on a survey of antlerless deer hunters in Minnesota, fall 2002.

WILDLIFE DAMAGE COMPLAINTS

NOTE: Wildlife damage complaint information is collected statewide from wildlife managers. The data is compiled and summarized at the Farmland Wildlife Research Station, Route 1 Box 181, Madelia MN 56062.

Deer Complaints 1993-2003

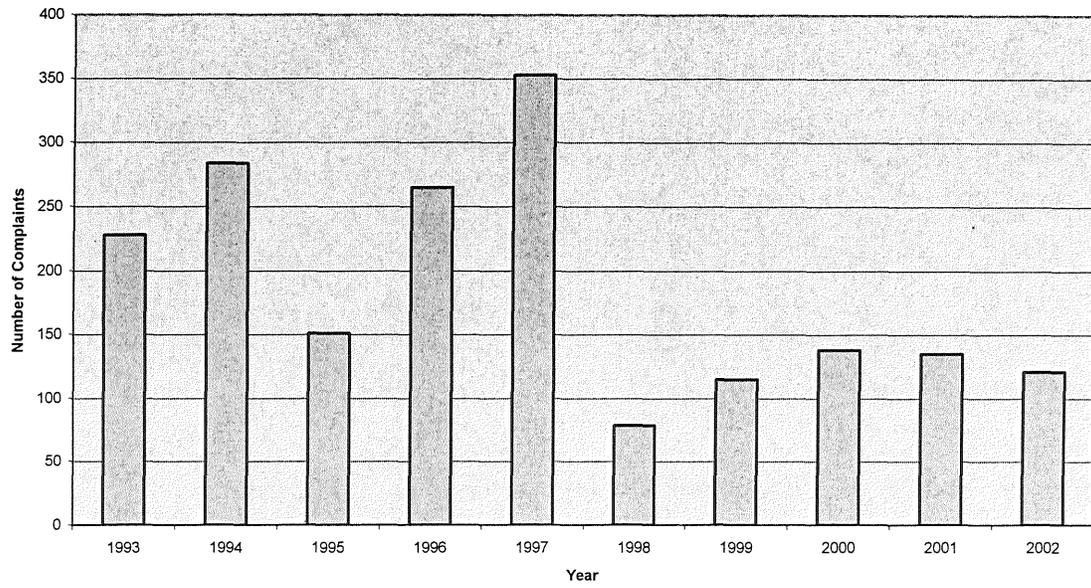


Figure 12. Number of deer complaints from 1993-2002, in Minnesota.

Bear Complaints 1993-2002

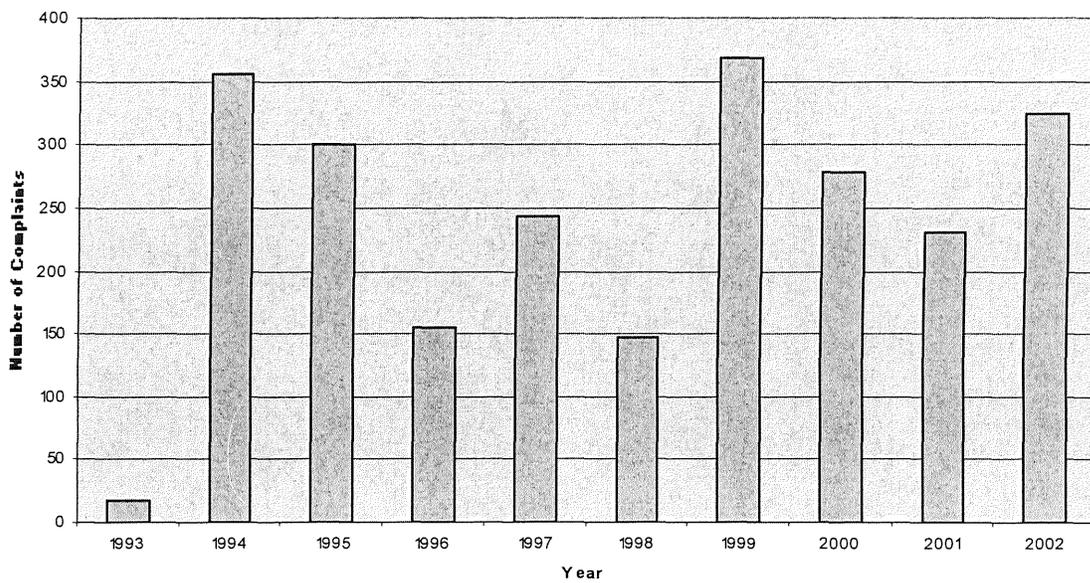


Figure 13. Number of bear complaints from 1993-2002, in Minnesota.

Goose Complaints 1993-2002

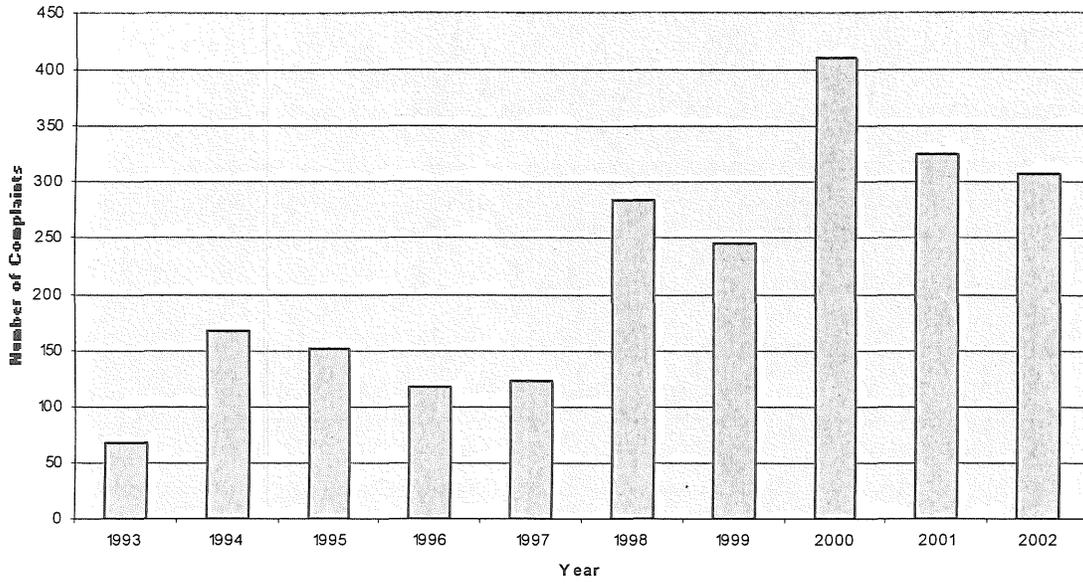


Figure 14. Number of goose complaints from 1993-2002, in Minnesota.

Wildlife Complaints 1993-2002

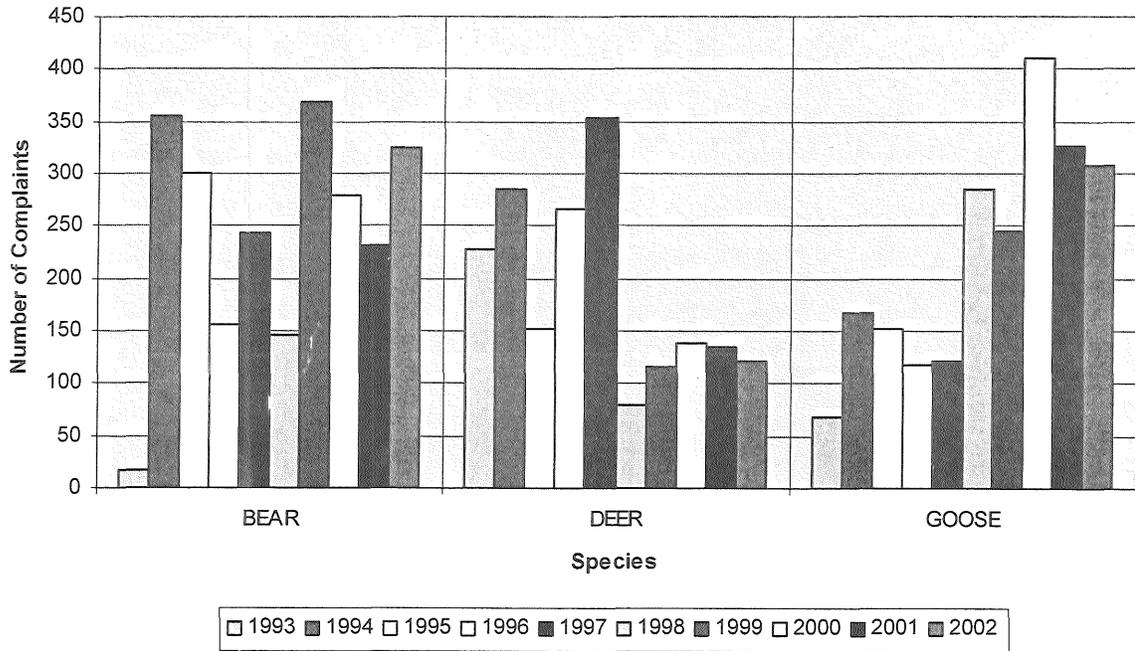


Figure 15. Number of wildlife complaints recorded by species from 1993-2002.

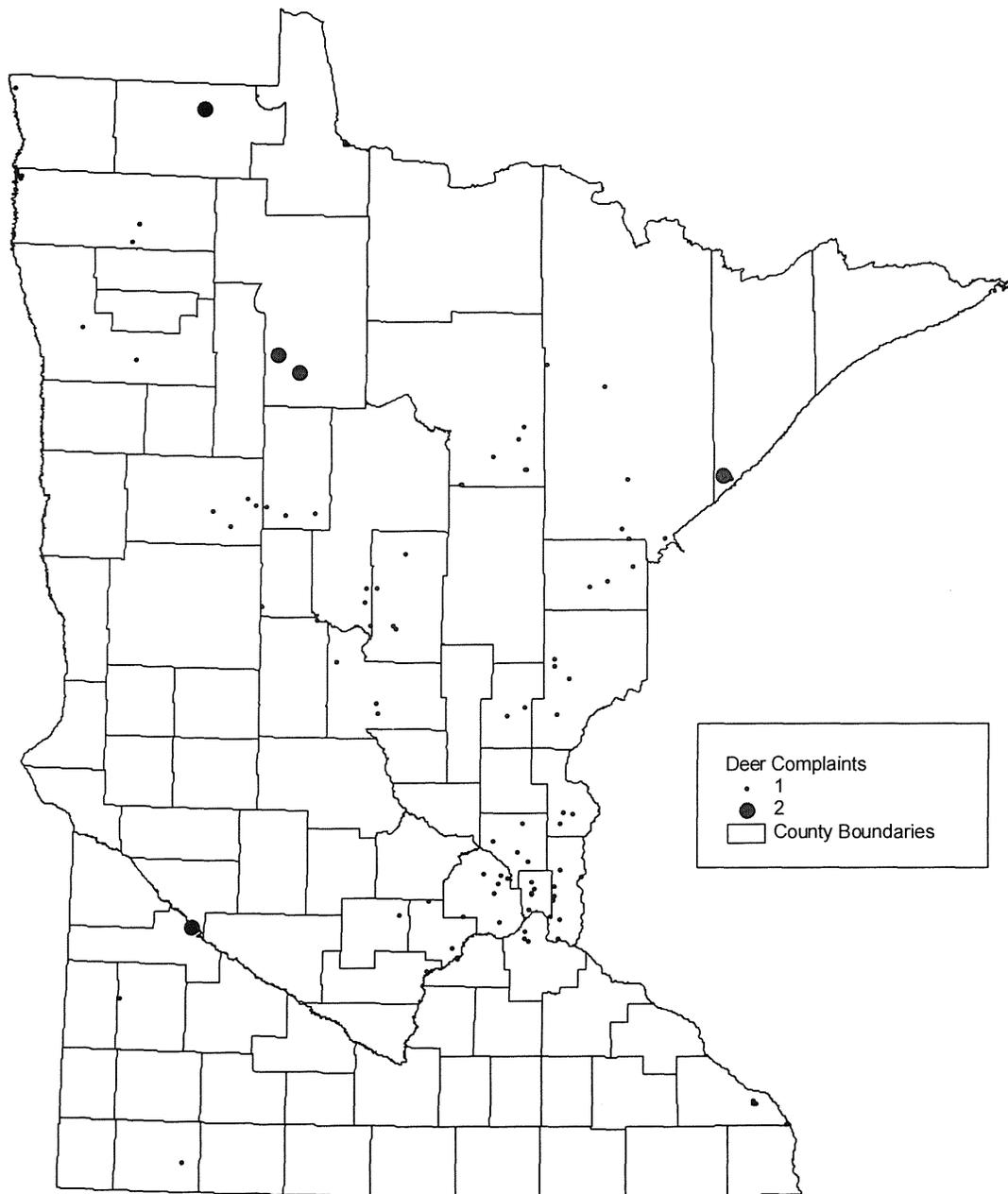


Figure 16. Location of deer damage complaints recorded in 2002. (n=109)

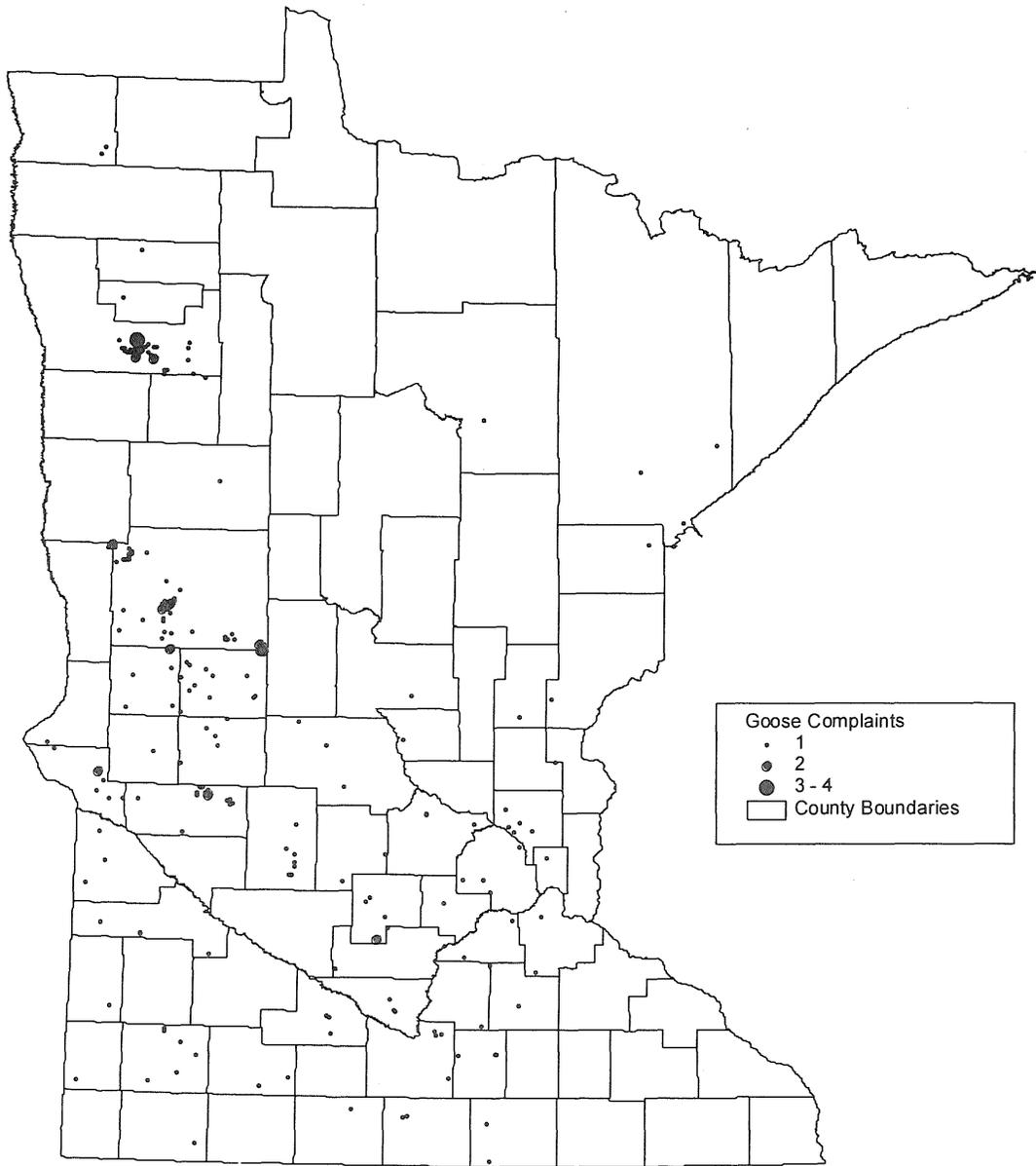


Figure 17. Location of goose damage complaints recorded in 2002. (n=248)

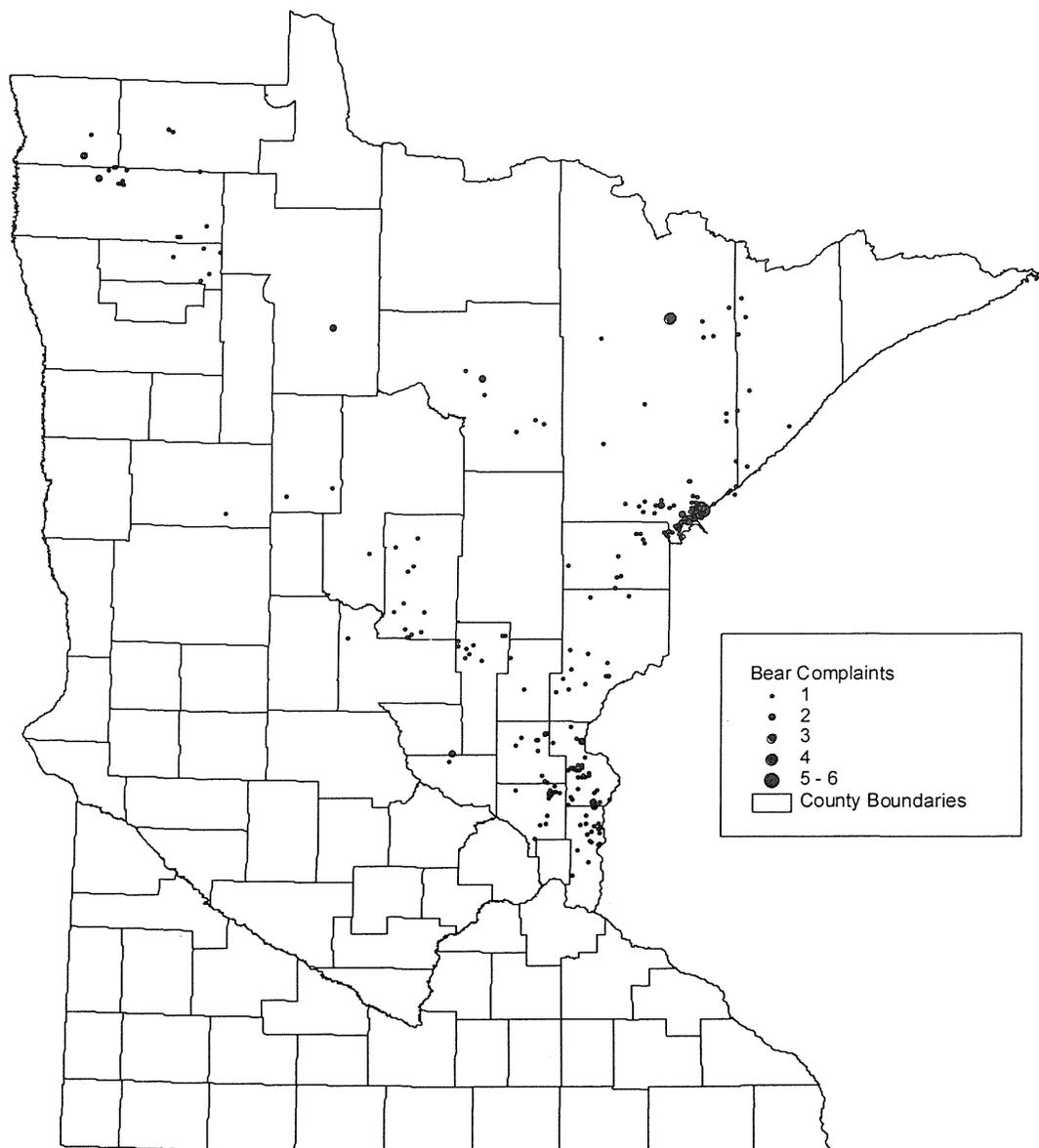


Figure 18. Location of bear damage complaints recorded in 2002. (n=292)

PREDATOR SCENT POST SURVEY

AND

WINTER TRACK INDICES

NOTE: This survey is organized and coordinated by the Forest Wildlife Populations and Research Group, 1201 E. Hwy 2, Grand Rapids, MN 55744. Results are presented at this location in the book because of the statewide nature of the data.

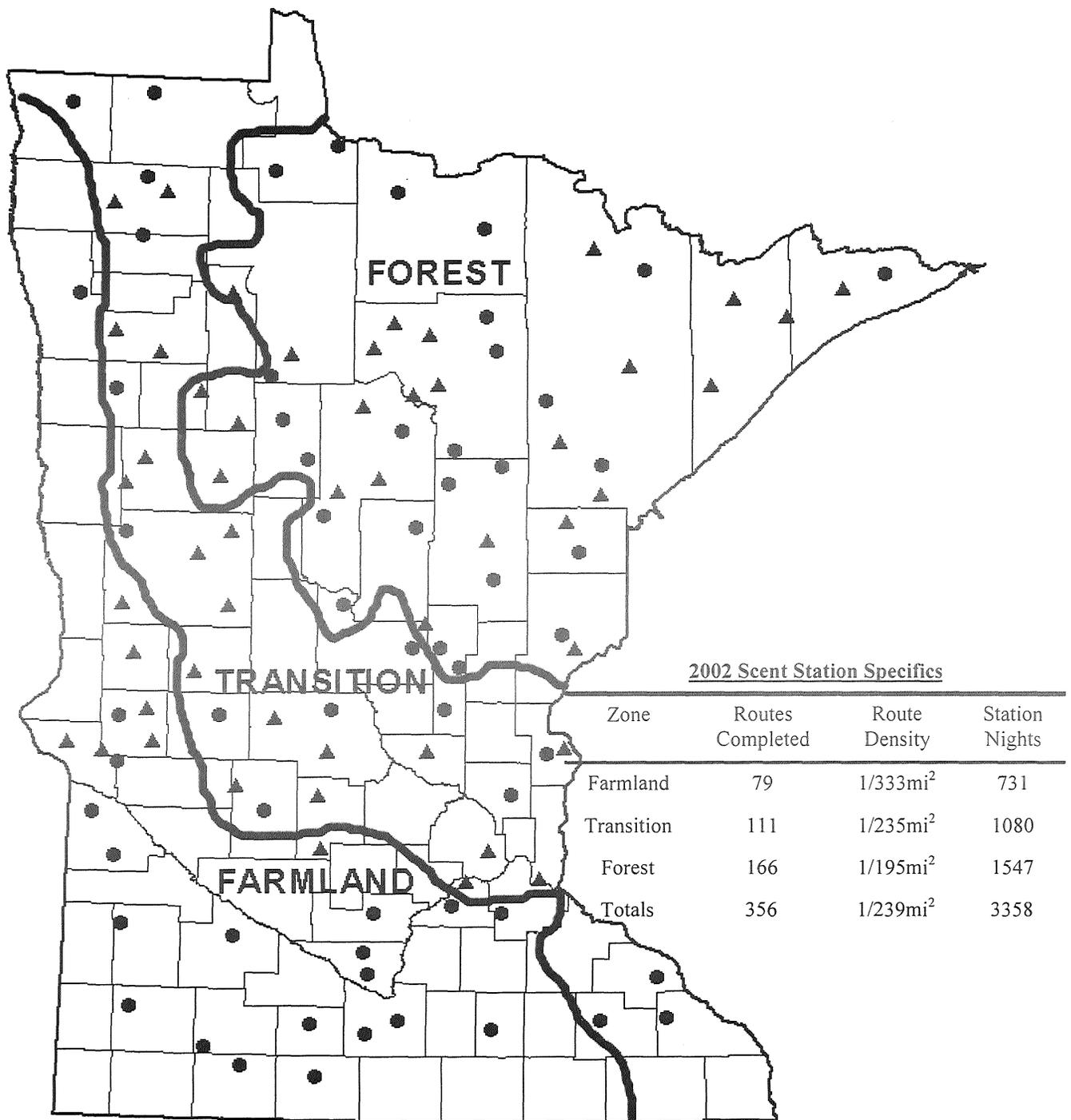


Figure 19. Approximate locations of scent station routes conducted by DNR Division of Wildlife (●) and interagency cooperators (▲), 2002. Each marked location may represent from 1-6 actual routes. Inset shows 2002 route specifics

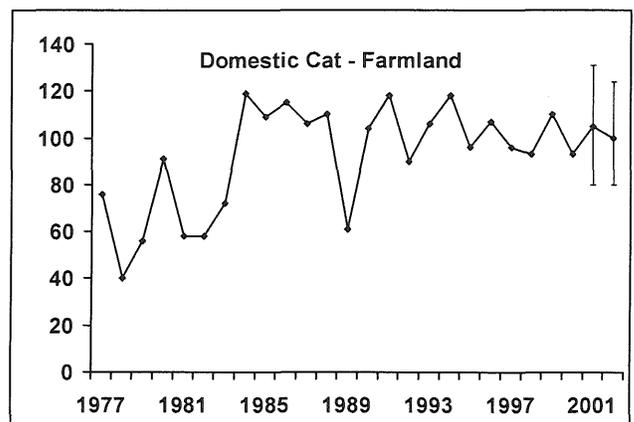
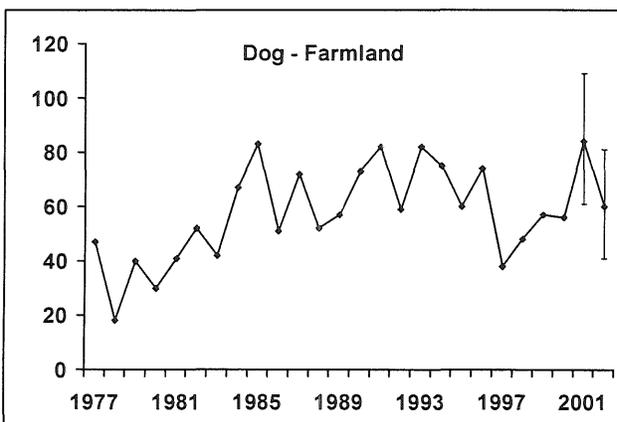
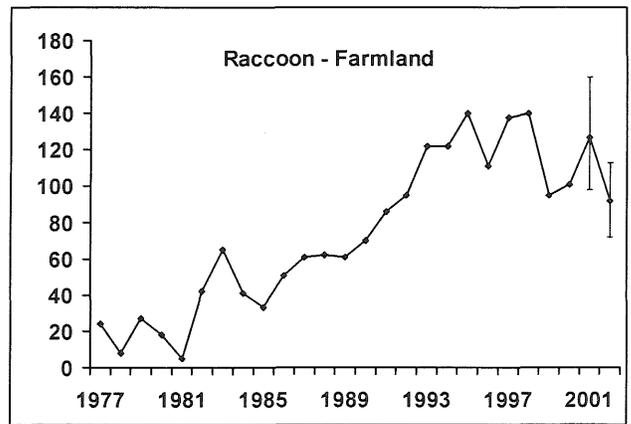
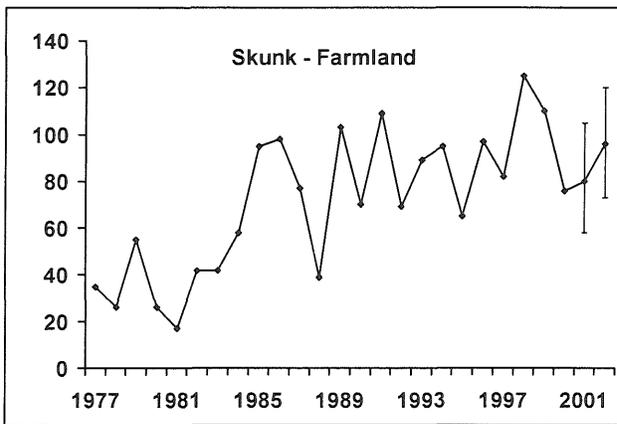
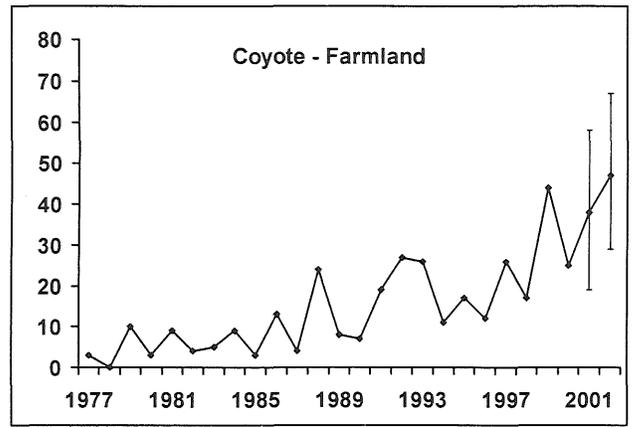
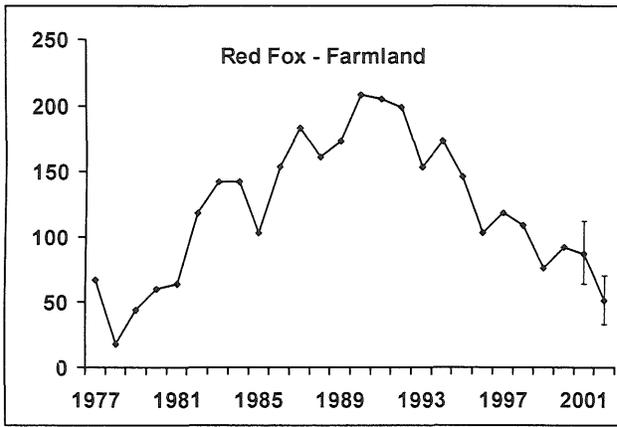


Figure 20. Scent station indices for selected species in the Farmland Zone of Minnesota, 1977-2002.

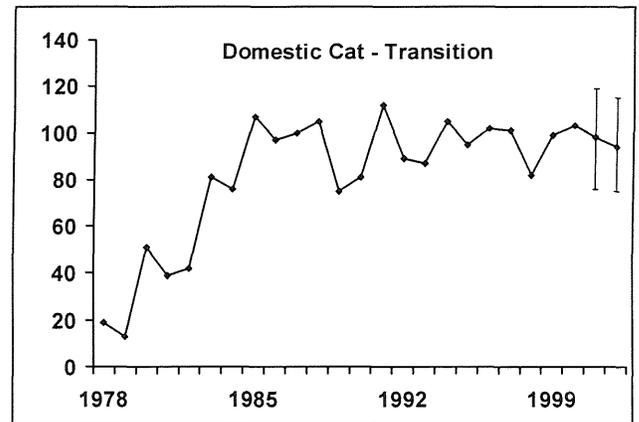
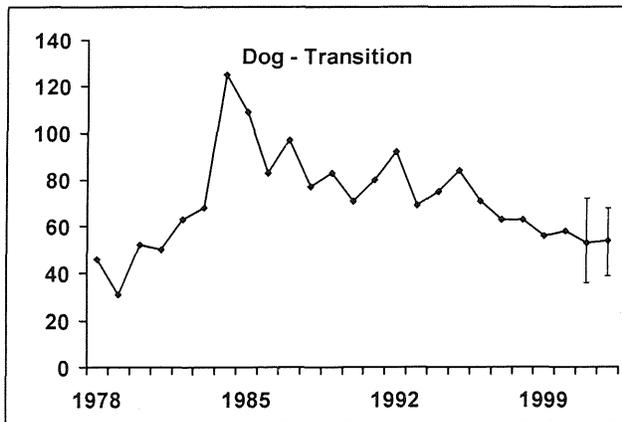
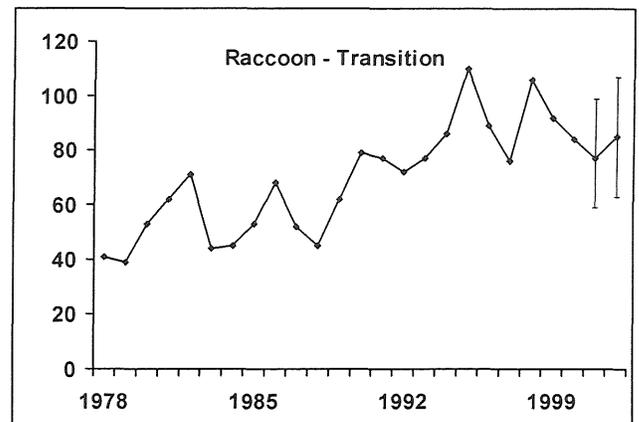
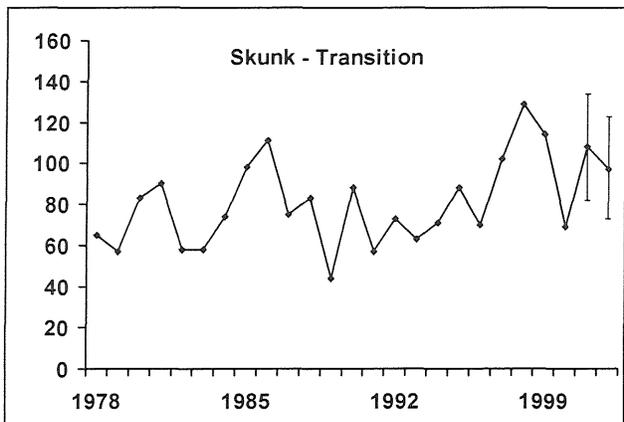
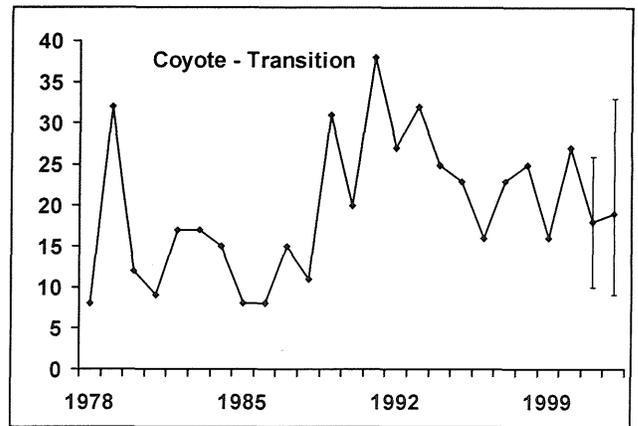
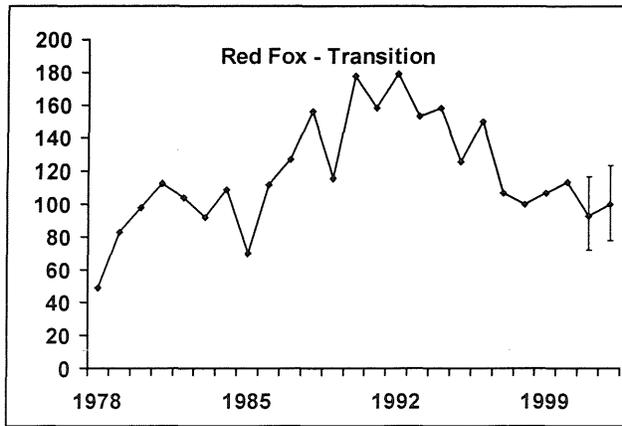


Figure 21. Scent station indices for selected species in the Transition Zone of Minnesota, 1978-2002.

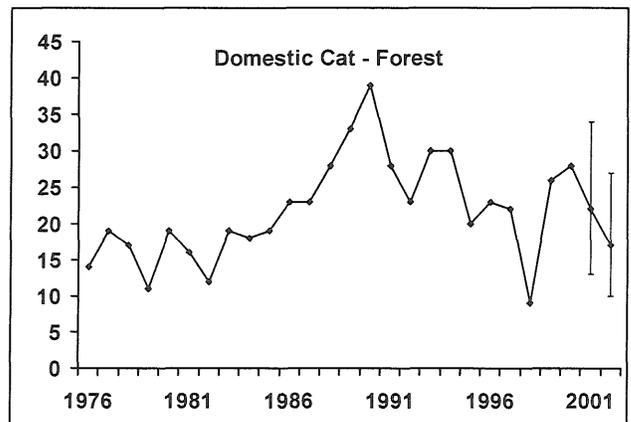
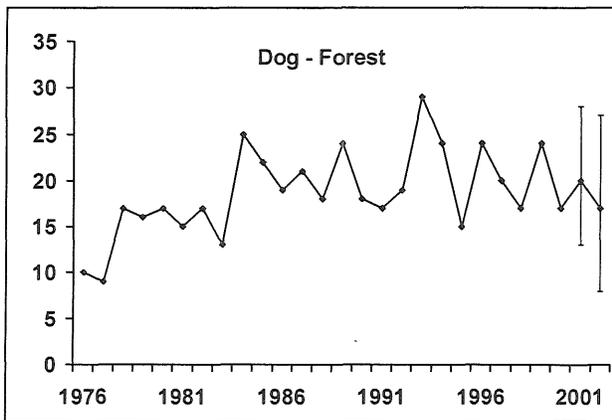
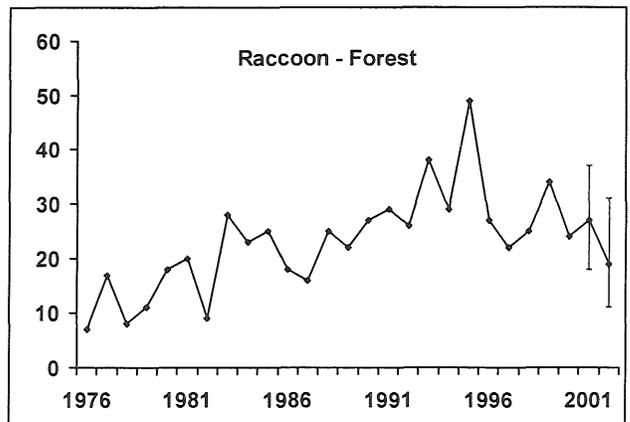
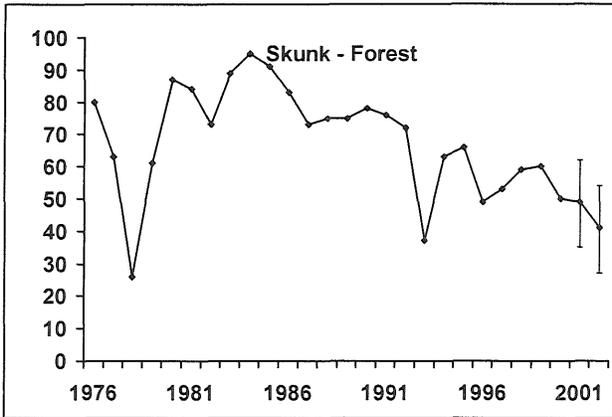
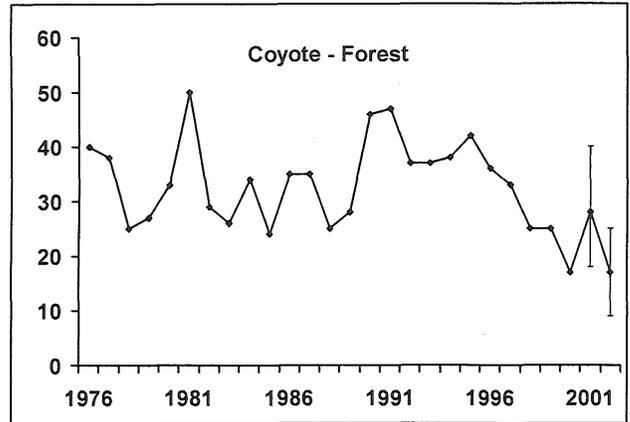
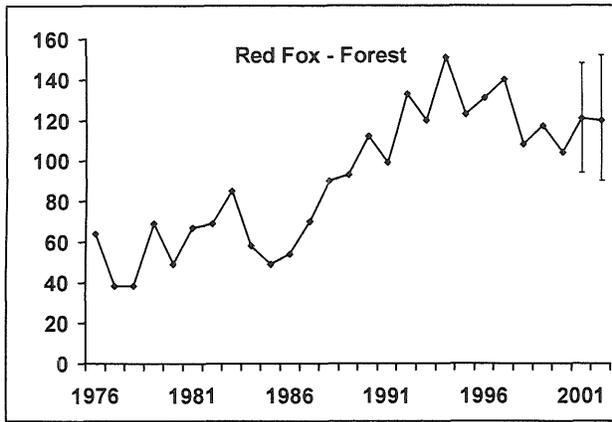


Figure 22. Scent station indices for selected species in the Forest Zone of Minnesota, 1976-2002.

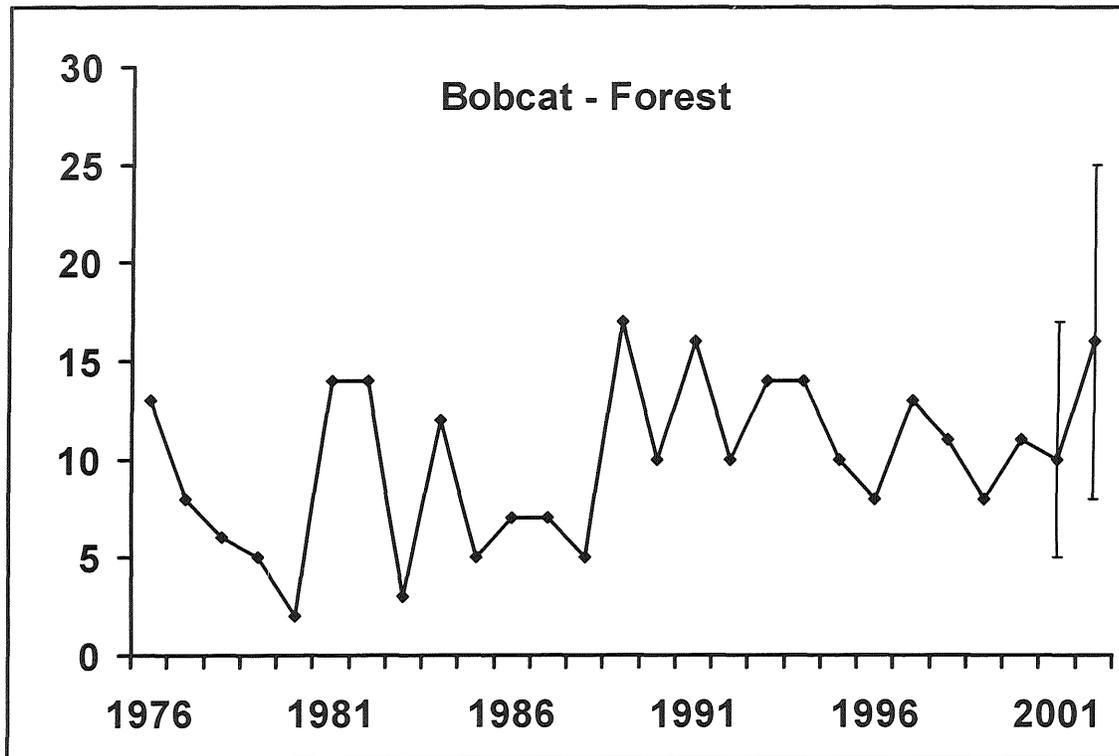
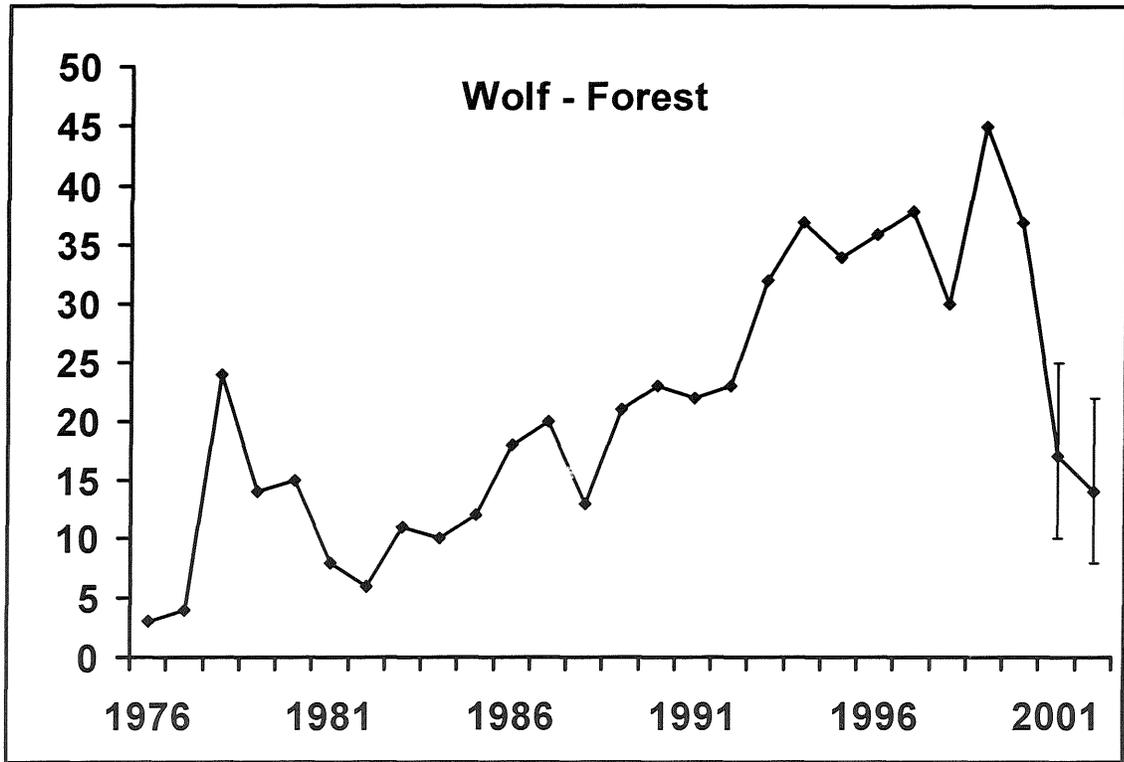


Figure 23. Scent station indices for wolf and bobcat in the Forest Zone of Minnesota, 1976-2002.

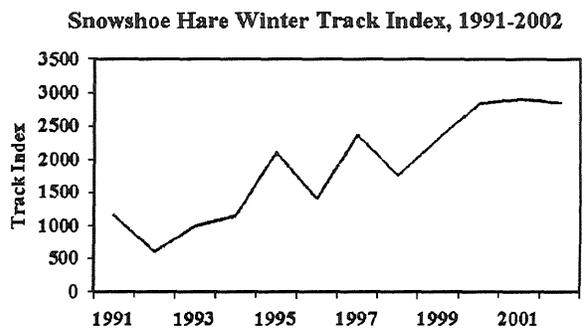
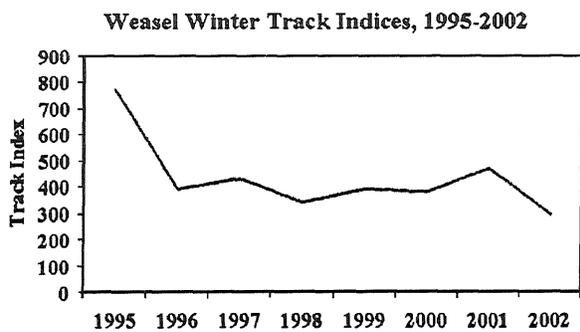
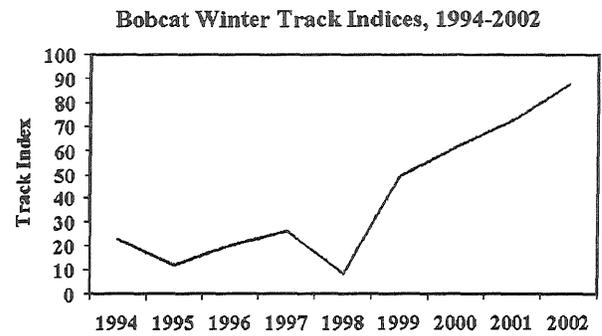
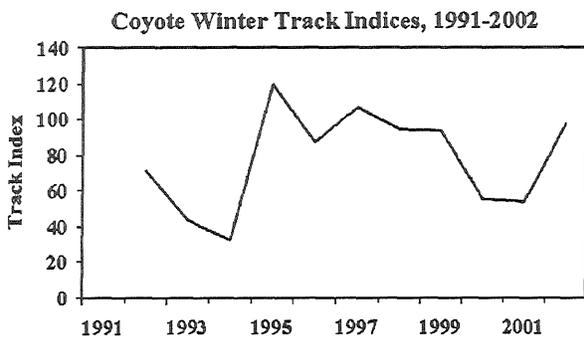
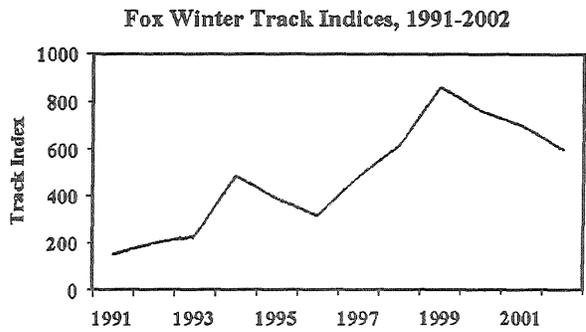
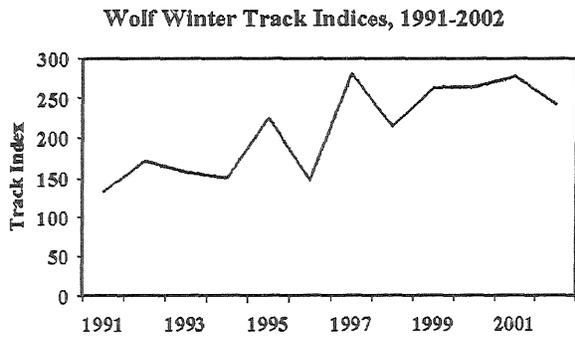
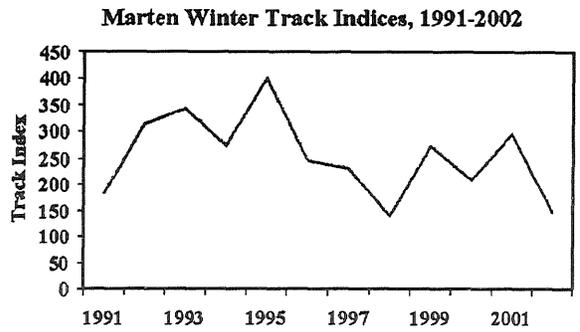
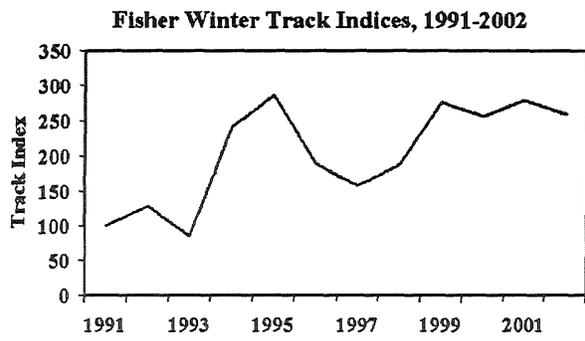


Figure 25. Winter track indices (northern Minnesota only) for 8 species, 1991-2002.

FOREST WILDLIFE POPULATIONS
1201 E. Hwy 2
Grand Rapids, MN 55744
(218) 327-4432

Table 12. Mean number of ruffed grouse drums per stop by census zone, 1961-2003.

Year	Census Zone					Rangewide mean
	Northwest	North	Northeast	Central Hardwoods	Southeast	
1961	1.4	2.2	0.9	1.0	1.0	1.4
1962	3.0	2.1	0.5	1.2	1.6	1.6
1963	0.4	0.6	0.5	0.4	1.1	0.6
1964	0.4	0.7	0.9	0.3	0.6	0.6
1965	1.5	1.3	0.7	0.6	1.4	1.0
1966	1.6	1.2	0.6	0.7	1.9	1.0
1967	2.8	1.9	1.3	1.0	2.2	1.6
1968	3.8	2.3	1.6	1.0	2.4	2.0
1969	3.3	2.7	1.4	1.4	2.3	2.2
1970	2.1	3.2	0.9	1.6	2.1	2.2
1971	1.4	3.6	1.0	1.7	3.7	2.4
1972	2.1	3.7	1.0	2.1	3.1	2.7
1973	0.5	1.5	0.6	0.9	3.7	1.1
1974	0.7	1.1	0.8	0.7	3.0	1.0
1975	1.2	1.4	0.8	0.8	2.6	1.3
1976	0.8	1.5	0.4	0.9	1.8	1.1
1977	0.9	1.6	0.7	0.9	2.5	1.2
1978	2.1	2.4	0.8	1.4	2.3	1.7
1979	1.7	2.2	0.7	1.3	2.2	1.6
1980	1.9	2.1	0.7	1.9	2.7	1.7
1981	1.2	1.7	0.8	1.8	2.4	1.4
1982	0.9	1.1	0.3	0.9	1.1	0.8
1983	0.6	1.1	0.6	0.8	1.5	0.9
1984	1.0	1.1	0.6	0.5	1.4	0.8
1985	0.7	1.2	0.6	0.6	1.5	0.9
1986	1.7	1.1	0.4	0.6	2.5	1.0
1987	1.6	1.6	0.7	0.8	1.2	1.2
1988	1.3	2.0	1.0	1.0	1.1	1.4
1989	2.2	2.6	1.5	1.2	1.2	1.9
1990	0.8	2.5	0.9	1.1	1.2	1.6
1991	1.0	1.7	0.8	0.7	0.7	1.2
1992	1.0	1.0	0.5	0.6	0.6	0.8
1993	0.9	0.8	0.5	0.6	0.5	0.7
1994	1.7	1.0	0.5	0.5	0.4	0.9
1995	2.1	1.5	0.6	0.9	0.5	1.2
1996	2.4	1.8	0.7	0.8	0.5	1.4
1997	2.0	2.3	1.5	0.9	0.4	1.7
1998	1.7	2.7	1.2	1.2	0.5	1.8
1999	2.3	2.1	1.2	1.3	0.5	1.7
2000	1.5	1.9	1.1	1.3	0.4	1.5
2001	1.3	1.1	0.6	0.7	0.4	0.9
2002	1.2	1.0	0.6	0.6	0.4	0.8
2003	1.2	1.0	0.6	0.8	0.6	0.9

RUFFED GROUSE 2002-2003

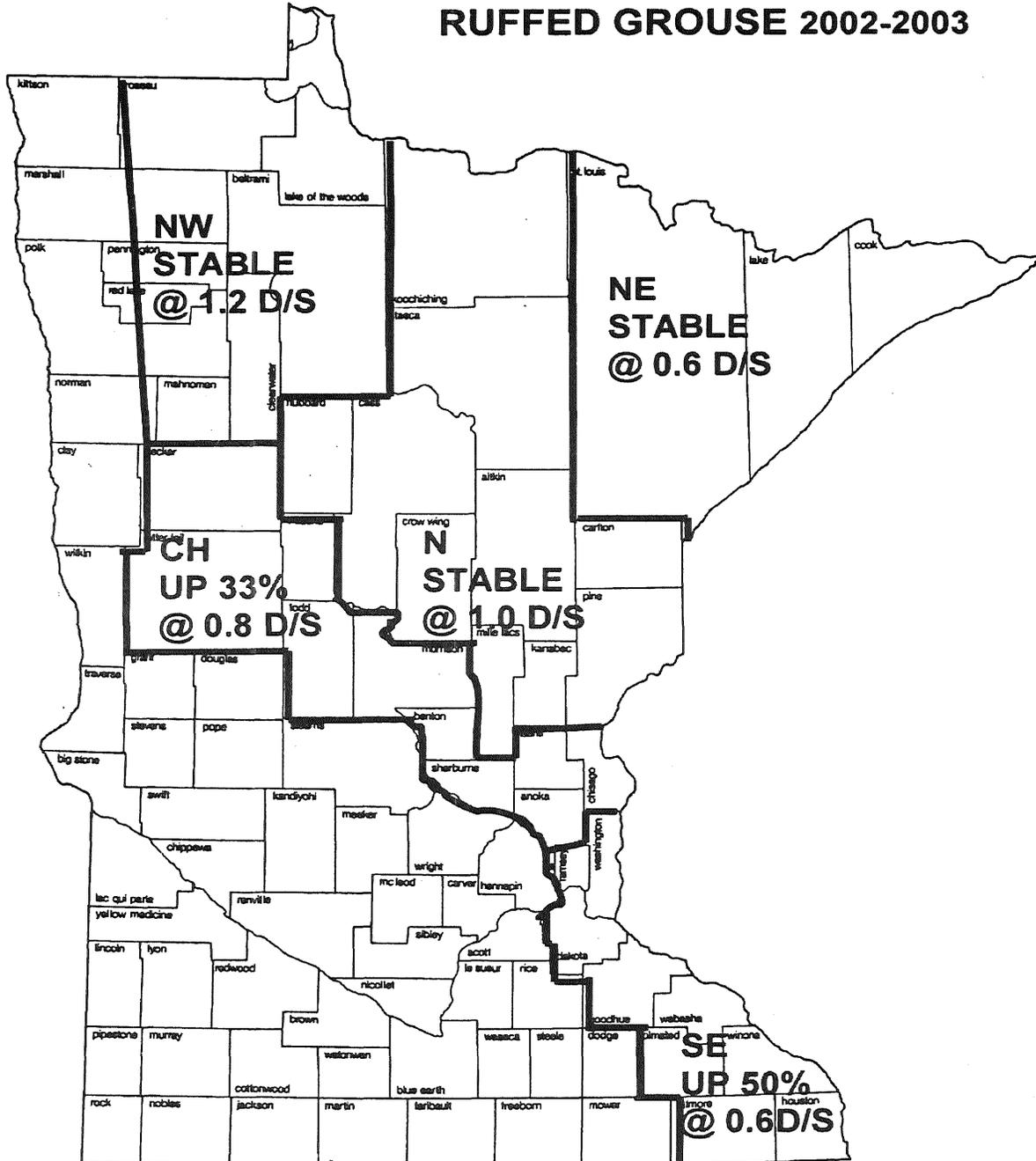


Figure 25. Changes in average numbers of ruffed grouse drums per stop on roadside counts, 2002-2003.

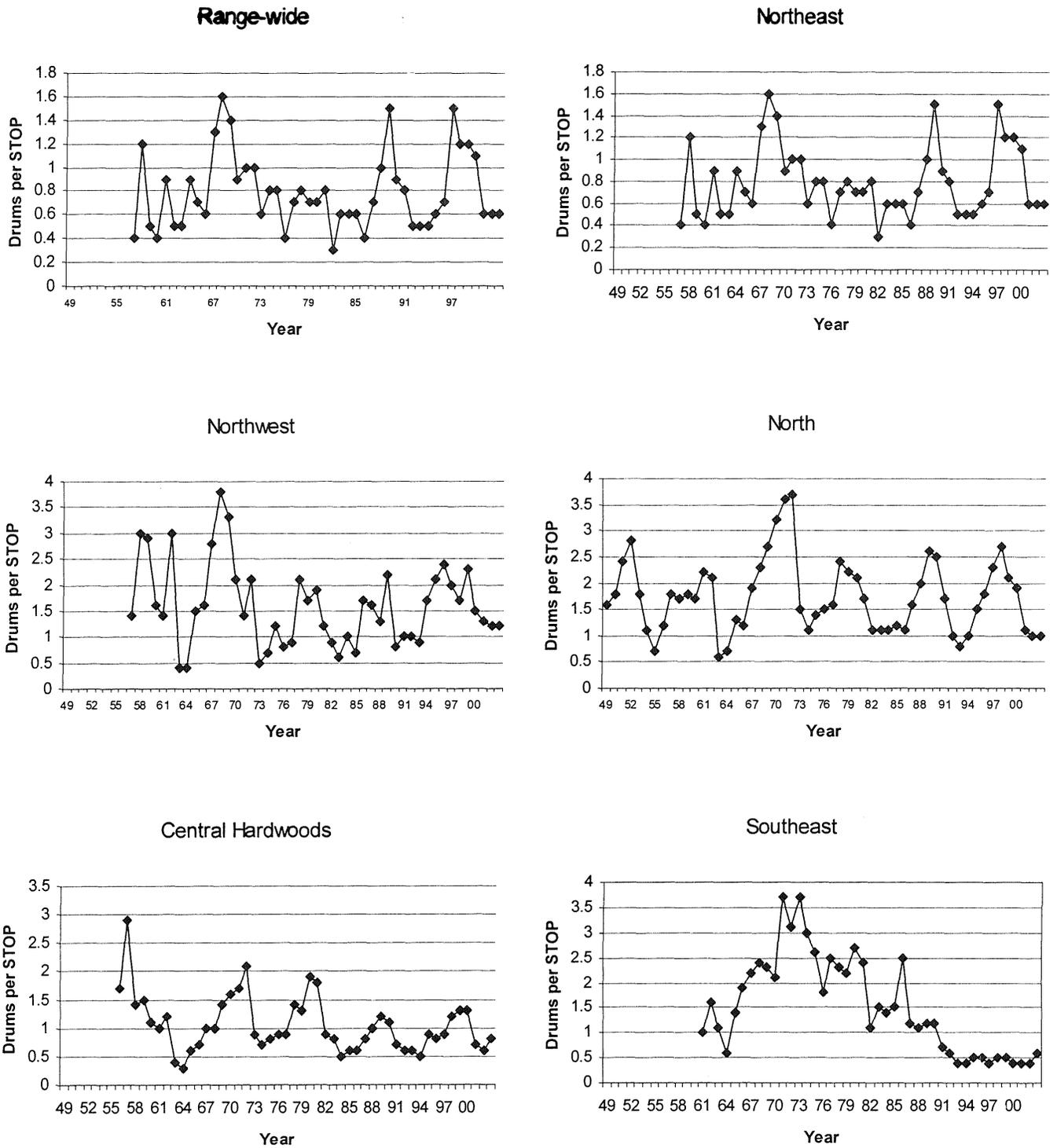


Figure 26. Summary of ruffed grouse drumming trends range-wide and in each of five survey zones, 1949-2003.

SHARP-TAILED GROUSE 2002-2003

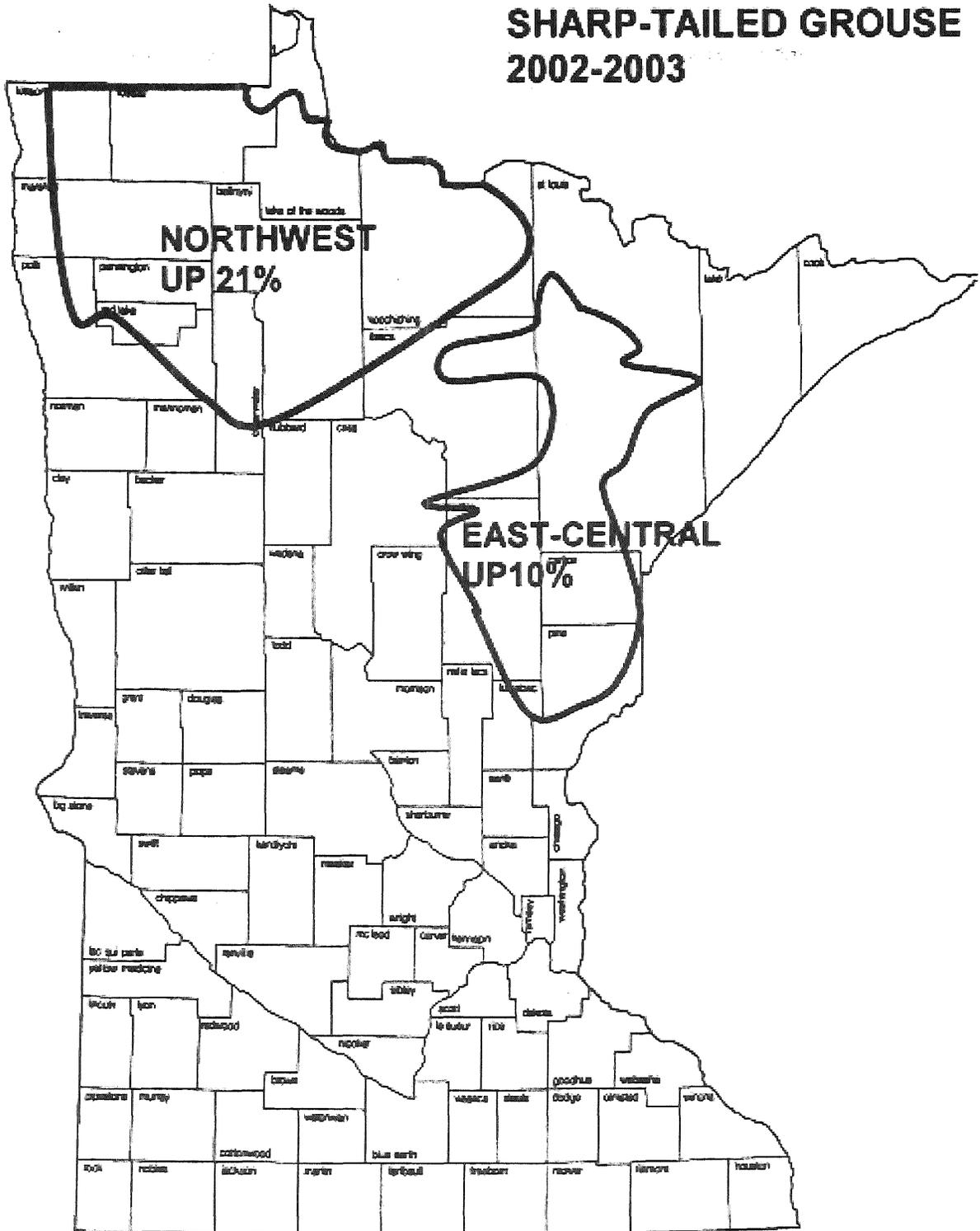


Figure 27. Changes in male sharp-tailed grouse counted on comparable dancing grounds in the Northwest and East-central ranges, 2002-2003.

Table 13. Number of snowshoe hares seen per 100 km of ruffed grouse drumming routes in the North, Northwest, and Northeast survey zones, 1974-2003.

Year	Hares seen per 100 km
1974	0.45
1975	0.00
1976	2.04
1977	2.76
1978	8.98
1979	8.77
1980	14.06
1981	9.81
1982	1.83
1983	0.70
1984	0.16
1985	0.38
1986	0.17
1987	0.51
1988	0.90
1989	2.69
1990	2.30
1991	1.16
1992	1.36
1993	0.46
1994	0.20
1995	0.46
1996	0.78
1997	0.57
1998	0.42
1999	1.08
2000	0.90
2001	1.68
2002	0.75
2003	1.80

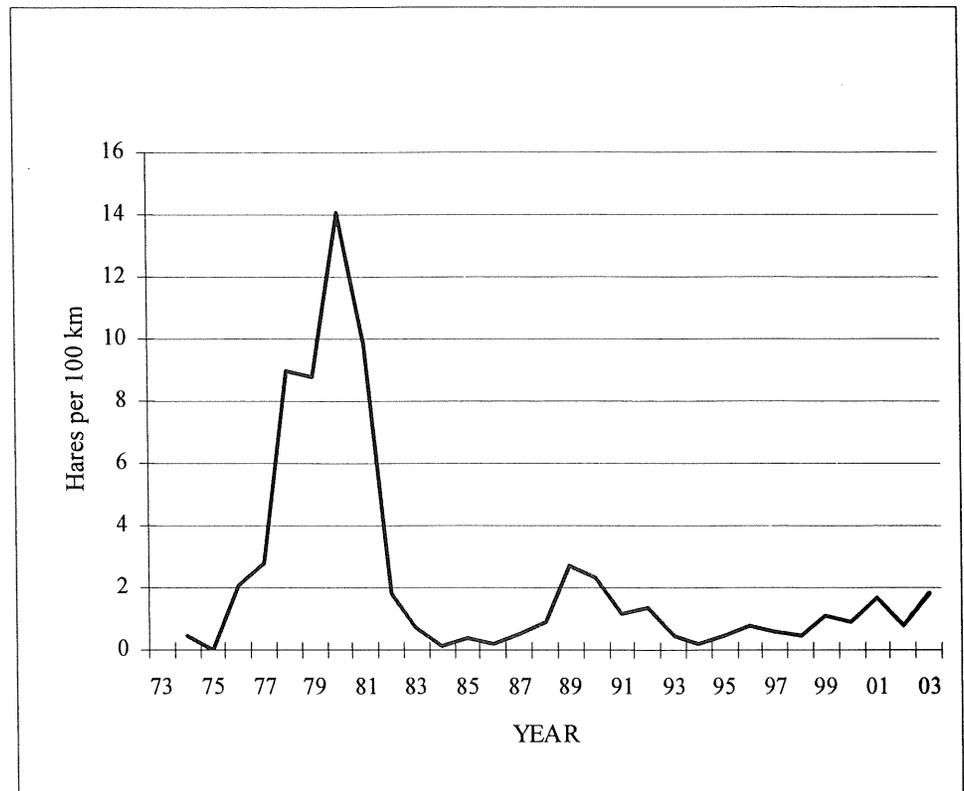


Figure 28. Snowshoe hare index (hares/100 km) based on hares seen on northern ruffed grouse drumming routes in Minnesota, 1974-2003.

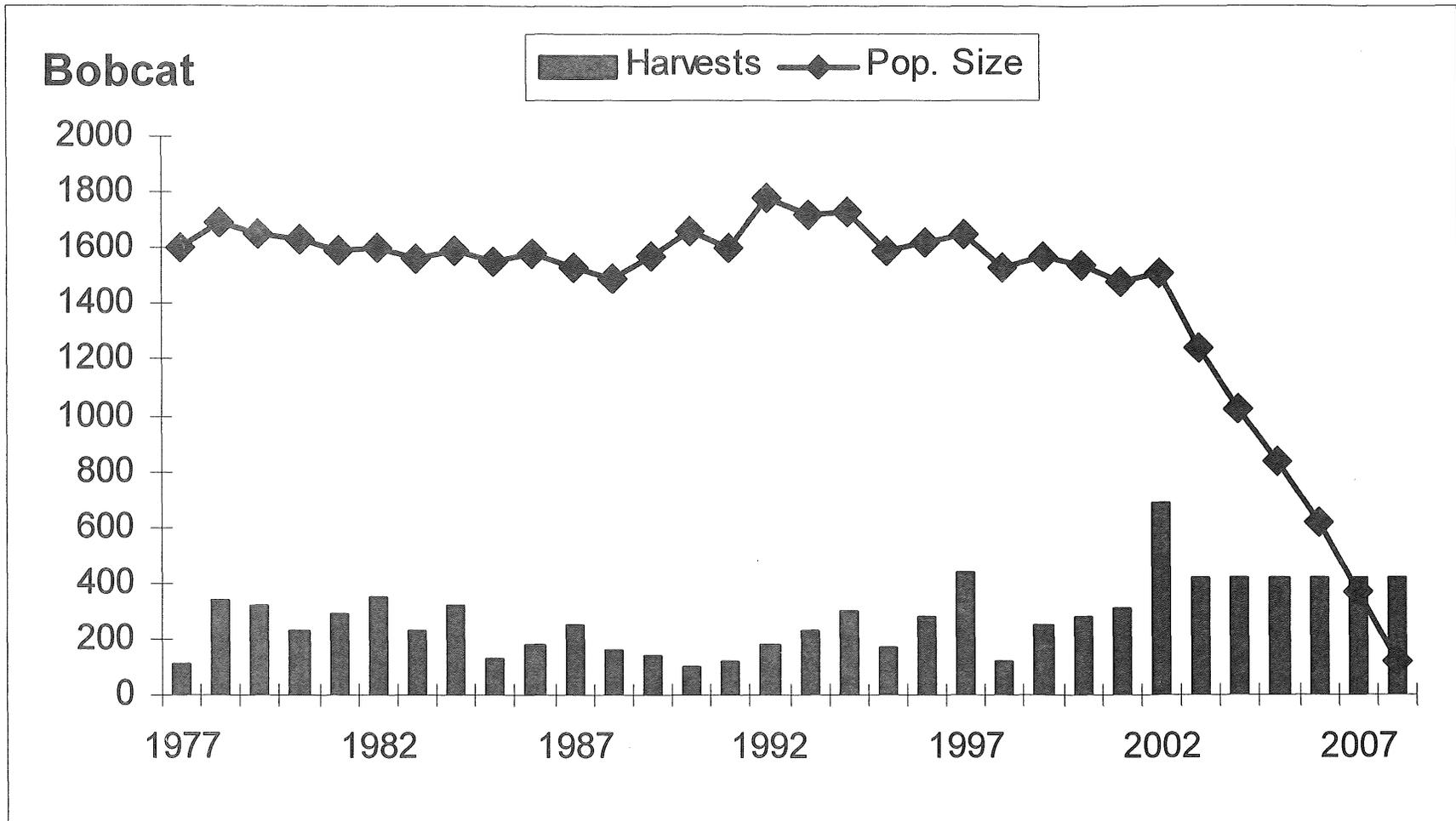


Figure 29. Population modeling for bobcat in Minnesota, 2003. Simulated harvest are based on the previous 3-year average.

Table 14. Bobcat harvest, age structure, and population index data in Minnesota, 1986 to 2002.

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Season	11/29- 1/3	11/28- 1/3	11/26- 1/1	12/2- 1/7	12/1- 1/6	11/30- 1/5	11/28- 1/3	12/4- 1/9	12/3- 1/8	12/2- 1/7	11/30- 1/5	11/29- 1/4	11/28- 12/13	12/4- 1/9	12/2- 1/7	11/24- 1/6	11/30- 1/5
Limit	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Registered take	160	214	140	129	84	106	167	201	238	134	223	364	103	206	231	259	544
% autumn pop. taken ¹	8	11	8	6	5	6	9	11	14	9	13	20	6	12	13	13	31
Carcasses examined	132	163	114	119	62	93	151	161	187	96	164	270	77	163	183	213	475
% juveniles	26	33	49	39	20	35	28	32	26	31	35	35	29	18	31	30	27
% 1.7 yrs. old	17	16	18	17	34	33	22	20	16	15	20	16	26	24	26	21	25
% ≥ 2.7 yrs. old	57	51	42	44	46	32	50	48	58	54	45	49	45	58	43	49	48
Juv. : ≥2.7 yr. females	0.9	1.4	1.7	2.0	0.8	3.6	1.2	1.4	0.8	2.7	1.5	1.2	1.6	0.8	1.5:1	1.3	1.0
% male juveniles	53	44	58	49	58	59	55	51	64	57	51	60	59	55	54	52	66
% male 1.7 yrs.	32	52	62	53	80	55	45	45	43	71	30	37	60	59	59	51	49
% male ≥ 2.7 yrs.	51	48	46	56	44	70	53	52	45	79	49	43	60	62	50	53	46
Overall % males	51	48	54	53	59	61	53	50	50	71	46	48	60	60	53	52	52
Mean pelt price	\$120	\$101	\$68	\$48	\$43	\$37	\$28	\$43	\$36	\$34	\$33	\$30	\$28	\$24	\$33	\$46	\$72
Scent post index ²	8	7	5	17	10	16	10	14	14	10	9	8	11	8	11	10	16
Winter track index ³									23	12	20	26	8	49	61	72	87

¹ estimated from population model, includes accidental harvests of 10% 1977-1999

² index for autumn prior to harvest season

³ index for winter during / after harvest season.

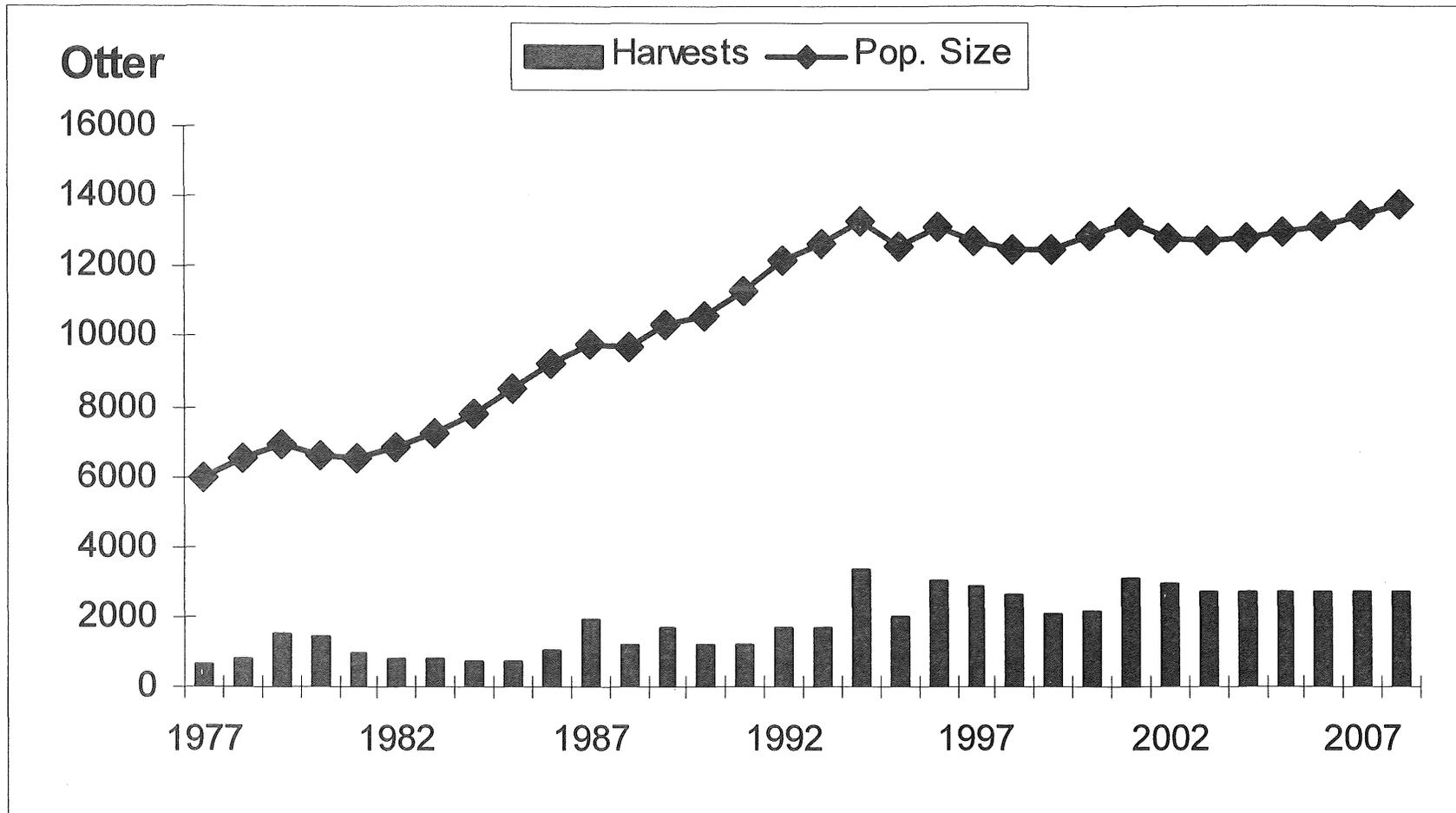


Figure 30. Population modeling summary for otter in Minnesota 2003. Simulated harvests are based on the previous 3-year average.

Table 15. Otter harvest, and pelt price data in Minnesota, 1987-2002.

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Season dates	10/24- 11/29	10/29- 11/27	10/28- 12/17	10/27- 1/6	10/26- 1/5	10/24- 1/3	10/23- 1/9	10/29- 1/8	10/28- 1/7	10/26- 1/5	10/28- 1/4	10/24- 1/3	10/23- 1/9	10/28- 1/7	10/27- 1/6	10/26- 1/5
Limit	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4
Registered harvest	1,386	922	1,294	903	855	1,365	1,454	2,445	1,435	2,219	2,145	1,946	1635	1578	2314	2145
% of autumn pop. harvested ^a	20	12	17	13	13	17	18	22	14	21	16	16	13	12	17	17
Mean pelt prices:																
Otter	\$23	\$22	\$22	\$24	\$25	\$29	\$43	\$48	\$38	\$39	\$40	\$34	\$41	\$51	\$46	\$61
Beaver (fall)	\$17	\$14	\$12	\$9	\$9	\$7	\$11	\$14	\$13	\$19	\$16	\$11	\$12	\$15	\$13	\$10

^a From population modeling; includes additional accidental harvests of 30% to 1991, and 22% after 1991.

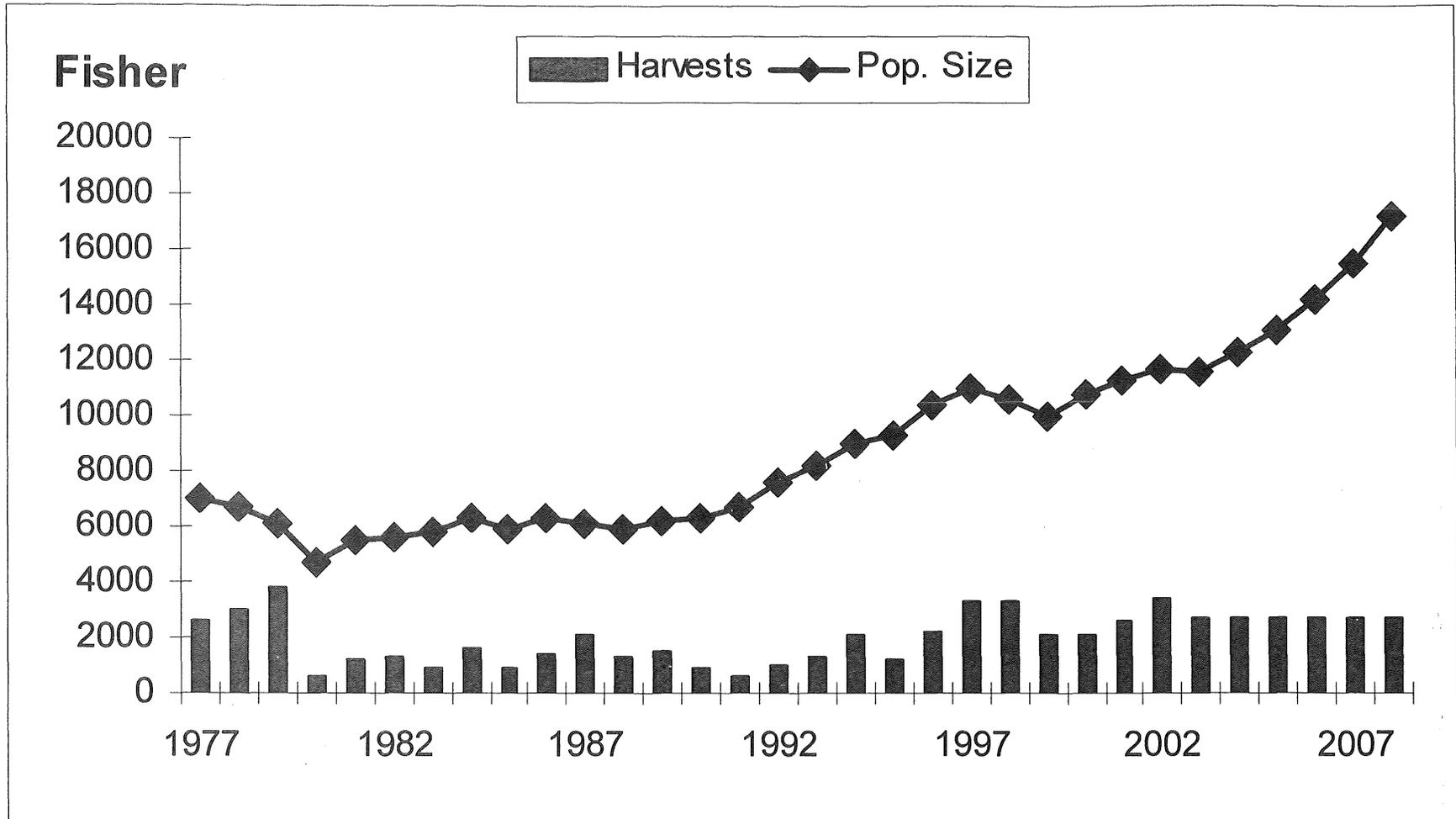


Figure 31. Population modeling summary for fisher in Minnesota, 2003. Simulated harvests are based on the previous 3-year average.

Table 16. Fisher harvest, carcass collection, and pelt price data in Minnesota, 1986-2002. Carcass collection ended in 1994.

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Season	11/23- 12/4	11/28- 12/13	11/26- 12/11	12/2- 12/17	12/1- 12/16	11/30- 12/15	11/28- 12/13	12/4- 12/19	12/3- 12/18	12/2- 12/17	11/30- 12/15	11/29- 12/14	11/28- 12/13	12/4- 12/19	12/2- 12/17	11/24- 12/9	11/30- 12/15
Limit	1	1	1	1	1	1	1	2	2	2	2	2	2	2	4 ⁴	4 ⁴	5 ⁵
Registered Harvest	1,068	1642	1,025	1,243	746	528	777	1,158	1,771	942	1,773	2,761	2,695	1,725	1,674	2,145	2,660
% of available fall population harvested ¹	17	24	16	15	11	7	10	12	18	10	18	26	25	13	13	16	20
No. carcasses examined ²	1186	1534	805	1024	592	410	629	937	1360	---	---	---	---	--	--	--	--
% juveniles	59	53	70	64	65	66	54	59	56	---	---	---	---	--	--	--	--
% 1.7 yrs.	24	15	15	19	14	21	25	22	18	---	---	---	---	--	--	--	--
% ≥ 2.7 yrs.	18	22	15	17	21	13	21	19	26	---	---	---	---	--	--	--	--
Juv.:adult female ratio	5.3:1	4.7:1	6.8:1	5.8:1	4.5:1	7.8:1	4.9:1	5.3:1	4.0:1	---	---	---	---	--	--	--	--
% male juveniles	48	46	48	47	44	50	42	47	47	---	---	---	---	--	--	--	--
% male 1.7 yrs.	50	40	45	47	55	52	55	37	54	---	---	---	---	--	--	--	--
% male ≥ 2.7 yrs.	37	37	33	36	30	35	45	42	44	---	---	---	---	--	--	--	--
% males overall	46	43	45	45	43	48	46	44	48	---	---	---	---	--	--	--	--
Pelt price: males	\$84	\$84	\$54	\$26	\$35	\$21	\$16	\$14	\$19	\$16	\$25	\$31	\$19	\$19	\$20	\$23	\$27
females	\$162	\$170	\$100	\$53	\$46	\$48	\$29	\$28	\$30	\$25	\$34	\$34	\$22	\$20	\$19	\$23	\$25
Winter track index ³						100	128	86	241	286	190	159	189	277	257	280	260

¹ estimated from population model, includes accidental harvests of 22% 1977-1992, and 11% 1993-1999

² may exceed registration totals due to accidental catches, Indian Reservation season framework, etc.

³ index for winter during / after harvest season.

⁴ combined limit in 2000 of any combination of marten and fisher totaling 4.

⁵ combined limit in 2002 of any combination of marten and fisher totaling 5.

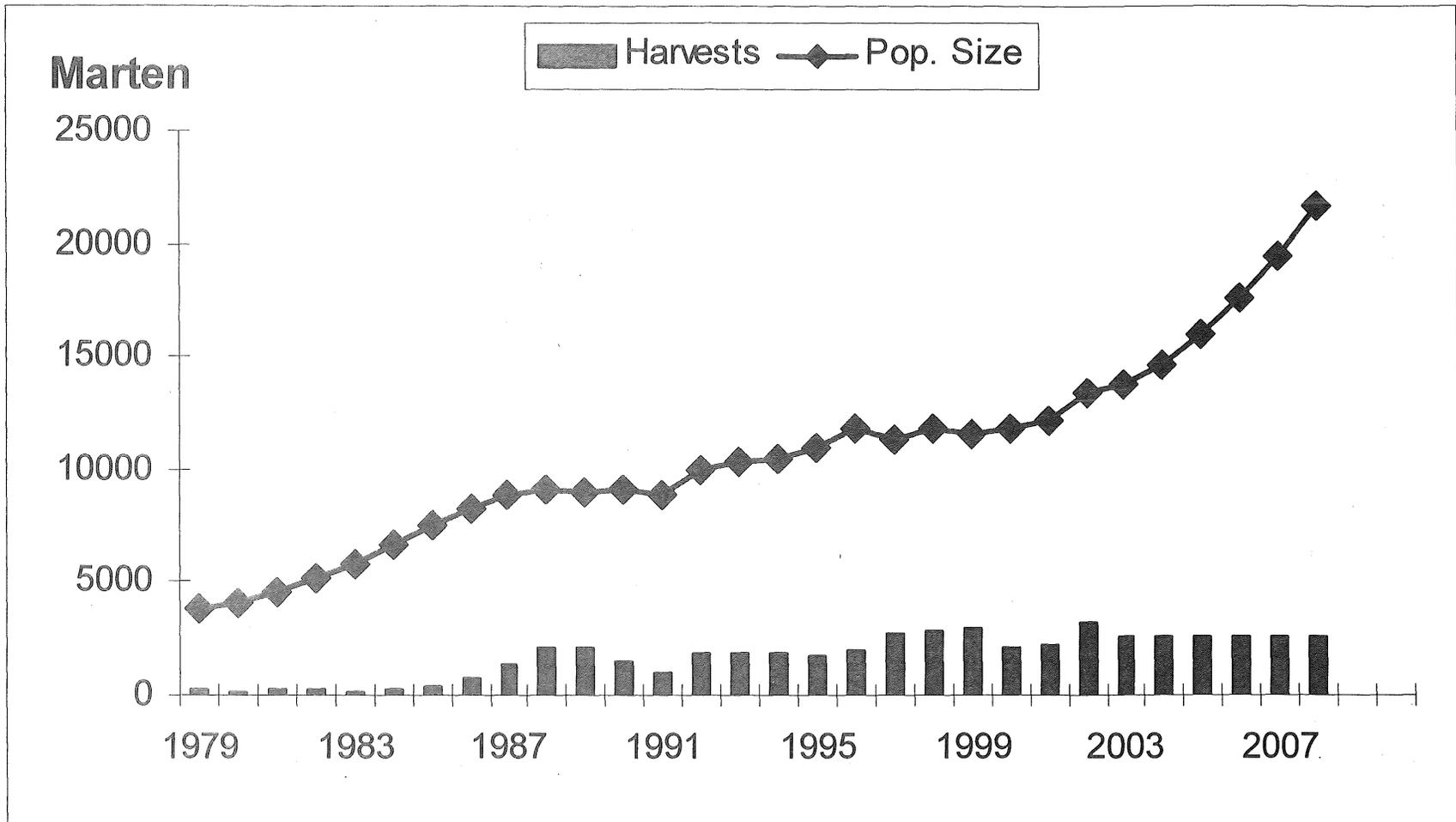


Figure 32. Population modeling summary for pine marten in Minnesota, 2003. Simulated harvests are based on the previous 3-year average.

Table 17. Pine marten harvest, carcass collection, and pelt price data in Minnesota, 1988-2002.

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Season	11/26-12/11	12/ 2-12/17	12/ 1-12/16	11/30-12/15	11/28-12/13	12/ 4-12/19	12/3-12/18	12/2-12/17	11/30-12/15	11/29-12/14	11/28-12/13	12/4-12/19	12/2-12/17	11/24-12/9	11/30-12/15
Limit	2	2	2	1	2	2	2	2	2	2	2	4 ³	4 ⁴	4 ⁴	5 ⁵
Registered take	2,072	2,119	1,349	656	1,601	1,436	1,527	1,500	1,625	2,261	2,299	2,423	1629	1940	2839
% of available fall population harvested ¹	19	20	15	11	15	15	15	13	16	21	20	18	14	17	19
No. carcasses examined ²	1,977	1,014	1,375	716	1,661	1,396	1,452	1,393	1,372	2,238	1,577	2,013	1598	1895	2451
% juveniles	66	68	48	74	65	57	58	60	48	61	57	67	56	62	39
% 1.7 yrs.	11	12	18	9	18	20	15	18	22	13	18	12	25	15	30
% ≥ 2.7 yrs.	23	20	34	17	17	23	27	22	30	26	25	21	19	23	31
juv.:adult female ratio	8.6:1	9.7:1	3.6:1	16.1:1	15.1:1	7.5:1	6.4:1	8.2:1	4.8:1	6.2:1	6.6:1	9.8:1	8.9:1	11:1	3.1:1
% male juveniles	58	57	59	69	63	61	62	63	62	60	62	65	62	66	57
% male 1.7 yrs.	50	63	54	71	70	71	76	68	69	60	66	66	69	73	63
% male ≥ 2.7 yrs.	66	65	61	72	75	67	67	66	67	63	65	67	66	75	61
% males overall	59	59	59	70	66	64	66	65	65	61	63	66	64	69	60
Pelt price: male	\$50	\$48	\$44	\$40	\$28	\$36	\$34	\$28	\$34	\$28	\$20	\$25	\$28	\$24	\$28
female	\$43	\$47	\$41	\$27	\$25	\$30	\$28	\$21	\$29	\$22	\$16	\$21	\$21	\$23	\$27

¹ estimated from population model, includes accidental harvests of 40% 1985-1987 and 1991, of 20% 1988-1990 and 1992-1998, and of 15% in 1999 to present.

² may exceed registration totals due to harvests by Indians, accidental catches, etc.

³ "combined" limit in 1999 of 4 marten, not to include more than 2 fisher (limit could be all marten)

⁴ combined limit in 2000 of any combination of marten and fisher totaling 4

⁵ combined limit in 2002 of any combination of marten and fisher totaling 5.

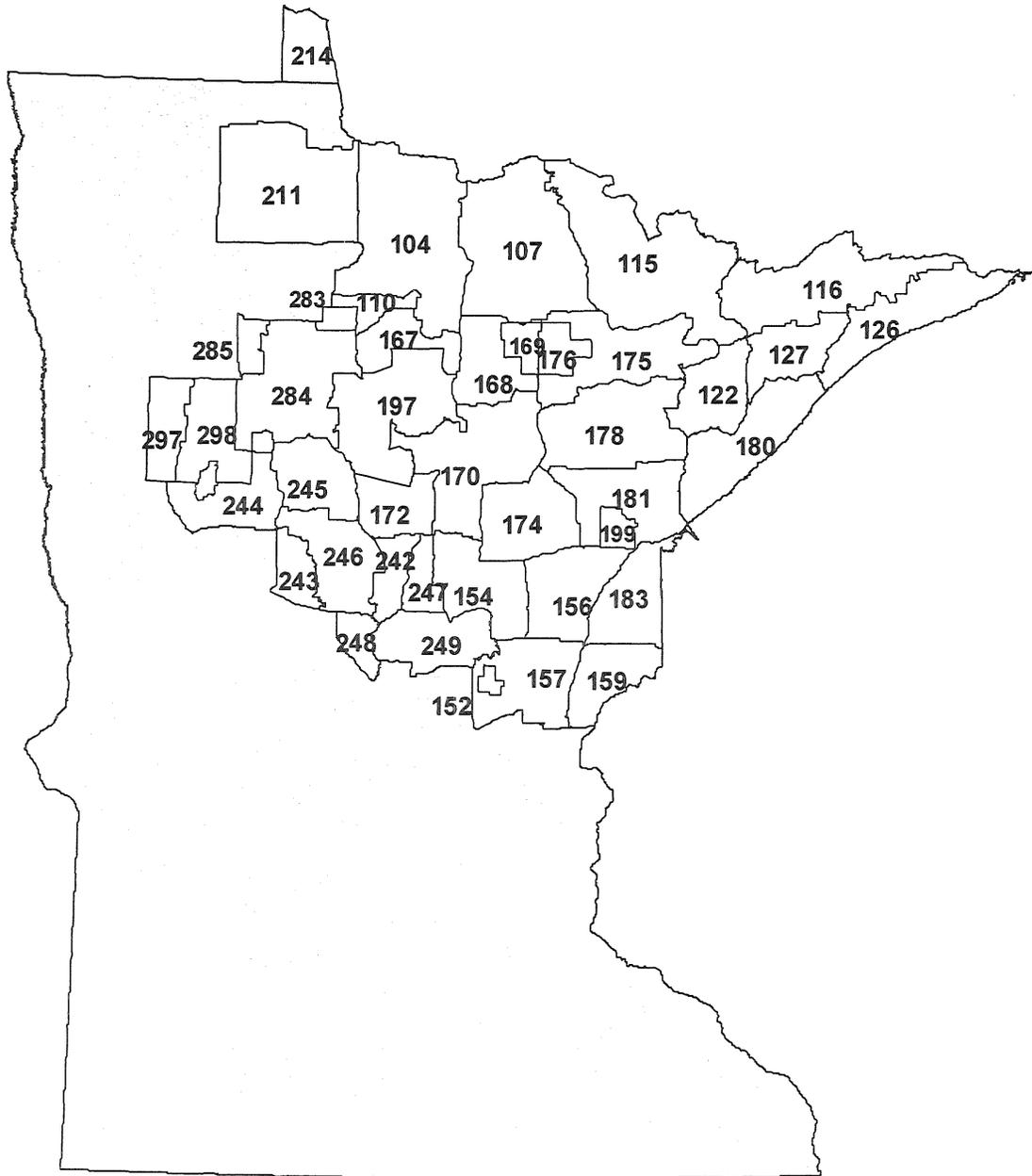


Figure 33. Either sex deer permit areas in the Forest zone, 2003. Killblocks 169, and 176 are only used for registration purposes.

Table 18. Spring (pre-fawning) white-tailed deer density as simulated from modeling in each permit area in Minnesota's Forested zone, 1994-2003.

Permit Area	Area (sq. mi.)	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Change
104	2078	8	8	5	4	5	5	6	6	7	8	11%
107	1895	8	8	6	5	7	8	9	9	10	11	11%
110	198	25	26	17	13	16	17	17	17	17	15	-9%
115	1872	16	18	13	12	14	16	18	17	18	19	6%
116	1158	1.0	1.1	0.8	0.7	0.9	0.8	1.0	0.9	1.0	1.1	10%
122	620	5	5	3	3	4	4	5	4	5	5	11%
126	940	3	4	3	2	3	3	4	4	4	5	10%
127	562	5	5	3	3	4	4	5	4	5	5	11%
152	61	16	16	14	12	14	14	15	14	15	17	13%
154	761	14	15	13	13	15	17	19	18	19	18	-3%
156	826	12	12	11	10	11	13	14	14	15	16	10%
157	890	18	20	19	17	21	23	25	25	27	27	3%
159	568	18	20	18	18	21	23	24	22	23	25	5%
167	440	25	26	17	13	16	17	17	17	17	15	-9%
168	724	13	12	9	9	11	14	15	14	16	17	5%
170	1315	10	10	8	8	10	12	14	13	13	14	5%
172	451	18	19	17	16	20	23	26	25	26	25	-2%
174	835	10	10	8	7	9	10	12	11	12	13	5%
175	1266	10	11	7	7	9	10	11	11	11	12	5%
178	1264	10	10	7	6	8	9	11	10	11	12	5%
180	1059	8	8	6	6	7	8	9	9	11	12	10%
181	1009	11	12	8	9	10	11	12	12	12	13	7%
183	707	14	16	12	11	13	15	15	14	14	14	1%
197	960	11	12	8	7	8	9	10	10	10	11	7%
211	1831	6	6	4	3	4	4	5	5	6	7	10%
242	209	18	19	17	16	20	23	26	25	26	25	-2%
243	314	30	31	28	25	29	32	36	34	36	36	-1%
244	586	32	34	25	23	27	31	35	38	41	43	5%
245	583	23	25	19	18	22	26	30	30	31	32	2%
246	758	24	25	23	20	23	25	28	26	26	27	4%
247	229	18	19	17	16	20	23	26	25	26	25	-2%
248	213	18	19	17	15	18	19	21	20	21	23	7%
249	502	15	16	14	13	15	18	20	19	20	21	5%
251	56	29	30	23	21	24	25	28	30	32	35	10%
284	1531	19	19	13	11	14	17	19	19	21	22	4%
297	439	4	4	3	3	3	3	4	4	4	5	7%
298	620	14	15	11	9	11	12	13	14	15	16	6%

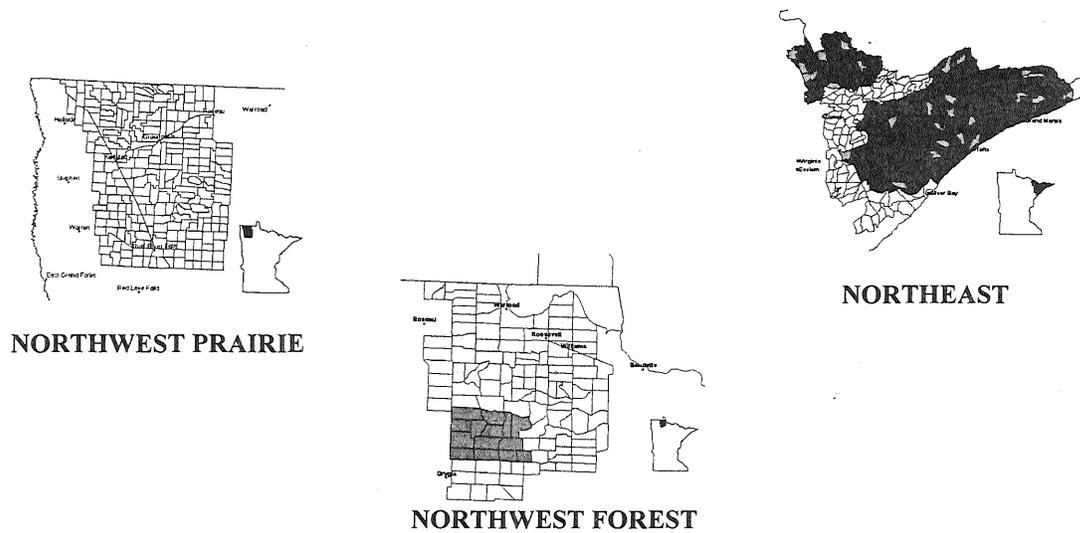


Figure 34. Aerial moose survey area boundaries.

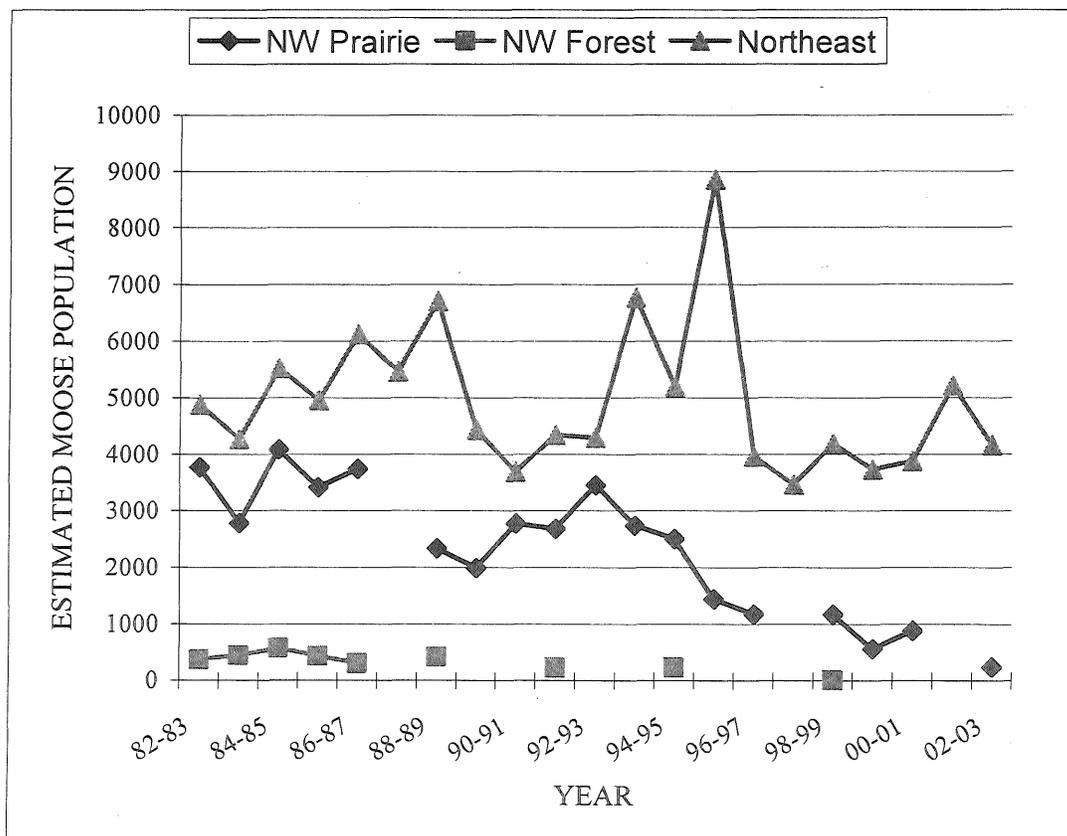


Figure 35. Moose population trends by survey area in northern Minnesota. Trend lines are broken where survey information was not collected.

Table 19. Moose population estimates from aerial moose survey in Minnesota, 1982-2002.

Year	Population Estimate by Survey Area (+90% CI)		
	Northwest Prairie	Northwest Forest	Northeast
1982-83	3772 (\pm 930)	370 (\pm 124)	4877 (\pm 999)
1983-84	2784 (\pm 567)	446 (\pm 139)	4274 (\pm 925)
1984-85	4086 (\pm 518)	578 (\pm 148)	4451 (\pm 774)
1985-86	3415 (\pm 412)	433 (\pm 100)	4918 (\pm 1029)
1986-87	3740 (\pm 747)	307 (\pm 83)	5994 (\pm 1438)
1987-88	no survey	no survey	5492 (\pm 1090)
1988-89	2328 (\pm 474)	419 (\pm 153)	6938 (\pm 2502)
1989-90	1985 (\pm 435)	no survey	4492 (\pm 1227)
1990-91	2771 (\pm 817)	no survey	3572 (\pm 1670)
1991-92	2678 (\pm 629)	223 (\pm 65)	4362 (\pm 1323)
1992-93	3452 (\pm 640)	no survey	4292 (\pm 1371)
1993-94	2735 (\pm 491)	no survey	6768 (\pm 1807)
1994-95	2500*	229 (\pm 88)	5193 (\pm 1516)
1995-96	1436*	no survey	8854 (\pm 9513)
1996-97	1170 (\pm 359) [†]	no survey	3960 (\pm 1416)
1997-98	no survey	no survey	3464 (\pm 1247) [‡]
1998-99	1,160 (\pm 384)	11 (\pm 8)	4186 (\pm 1423)
1999-00	560 (\pm 233)	no survey	3733 (\pm 942)
2000-01	883 (\pm 253)	no survey	3879 (\pm 1094)
2001-02	no survey	no survey	5214 (\pm 1199)
2002-03	237 (\pm 173)	no survey	4161 (\pm 1540)
change since last survey			- 25 %

* The Northwest Prairie (NWP) survey area was re-stratified and split into two separate survey areas, the Northwest Prairie East (NWPE) and the Northwest Prairie West (NWPW). Results from these two areas were combined to give the NWP population estimate.

[†] Because of reduced moose numbers, the Northwest Prairie East and West survey areas were combined into a single area for this year's survey.

[‡] In order to maximize the "sampling fraction", the survey area in the northeast was reduced in size so as to include only the moose hunting zones. As a result, this year's survey is not directly comparable with previous year's estimates. For comparative purposes, this year's estimate has been extrapolated to reflect the older, larger survey area.

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Table 20. Estimates of Minnesota mallard breeding populations, 1975-2003.

Species	Year	Unadjusted population index	Visibility factor	Adjusted population estimate (thousands)
Mallard	1975	55,093	3.19	176
	1976	69,844	1.69	118
	1977	60,617	2.21	134
	1978	56,152	2.61	147
	1979	61,743	2.57	159
	1980	83,775	2.05	172
	1981	79,562	1.95	155
	1982	51,655	2.33	121
	1983	73,424	2.12	156
	1984	94,514	1.99	188
	1985	96,045	2.26	217
	1986	108,328	2.16	234
	1987	165,881	1.16	192
	1988	155,453	1.75	272
	1989	124,362	2.19	273
	1990	140,879	1.65	232
	1991	128,315	1.75	225
	1992	144,126	2.50	360
	1993	123,771	2.47	306
	1994	138,481	3.08	426
1995	142,556	2.24	319	
1996	153,473	2.05	315	
1997	160,628	2.54	407	
1998	188,972	1.95	368	
1999	169,213	1.87	316	
2000	157,853	2.02	318	
2001	146,034	2.20	321	
2002	145,191	2.53	367	
2003	115,974	2.42	280	

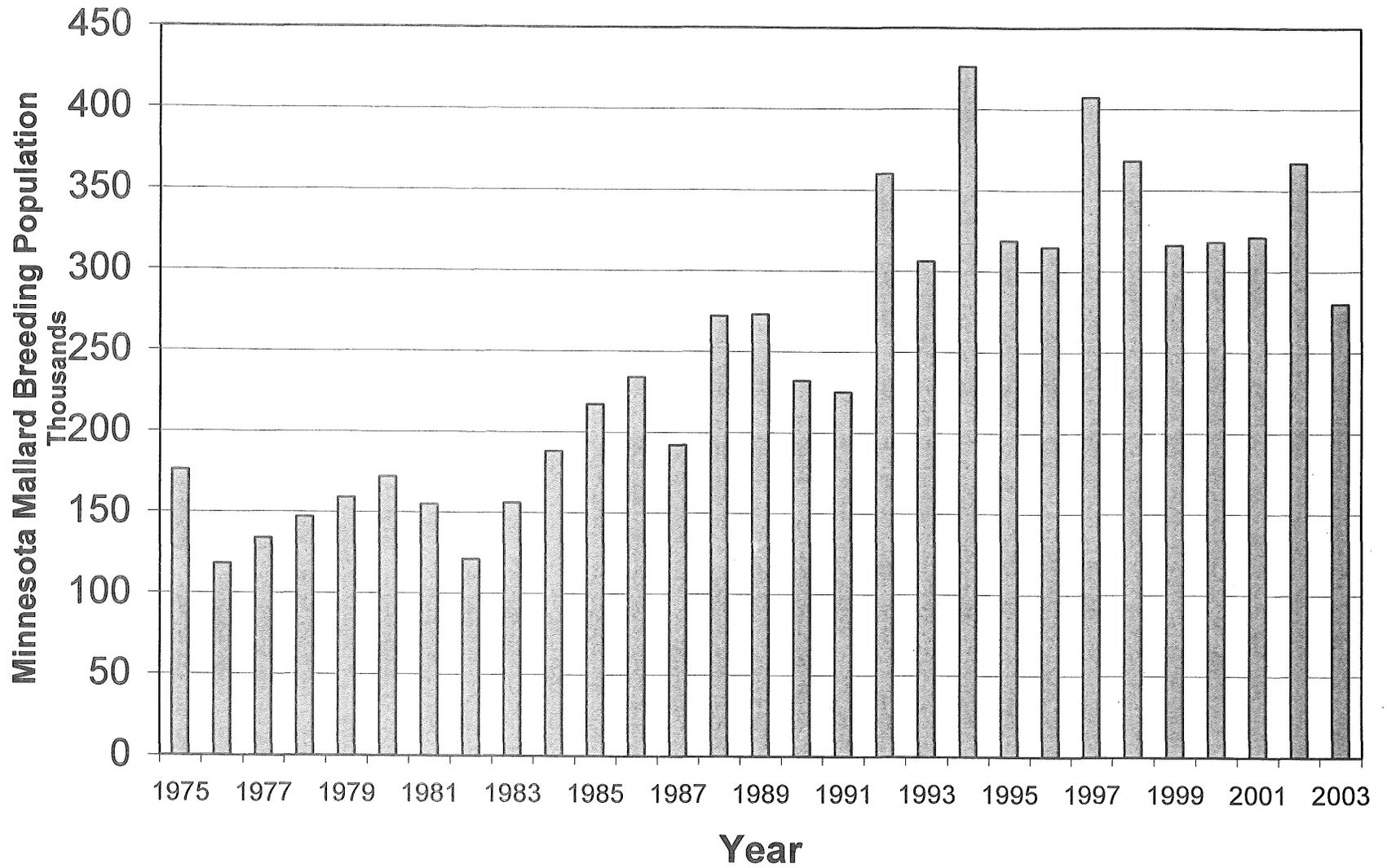


Figure 36. Minnesota mallard Breeding populations, 1975-2003

Table 21. Estimates of Minnesota Blue-winged teal breeding populations, 1975-2003.

Species	Year	Unadjusted population index	Visibility factor	Adjusted population estimate (thousands)
Blue-winged teal	1975	45,948	3.95	181
	1976	89,370	4.87	436
	1977	37,391	3.86	144
	1978	28,491	8.53	243
	1979	46,708	5.21	243
	1980	50,966	6.49	331
	1981	64,546	2.59	167
	1982	42,772	4.75	203
	1983	42,728	2.81	120
	1984	89,896	2.82	254
	1985	90,453	2.91	264
	1986	68,235	2.69	183
	1987	102,480	1.99	204
	1988	101,135	2.38	240
	1989	90,300	3.16	286
	1990	107,183	3.09	331
	1991	91,495	2.90	265
	1992	93,107	3.83	357
	1993	64,670	4.02	260
	1994	70,324	5.48	385
1995	47,737	4.40	210	
1996	57,196	5.05	289	
1997	45,496	5.57	253	
1998	47,788	3.66	175	
1999	36,106	4.53	163	
2000	60,288	2.97	179	
2001	37,706	3.60	136	
2002	91,982	4.67	430	
2003	46,759	4.13	193	

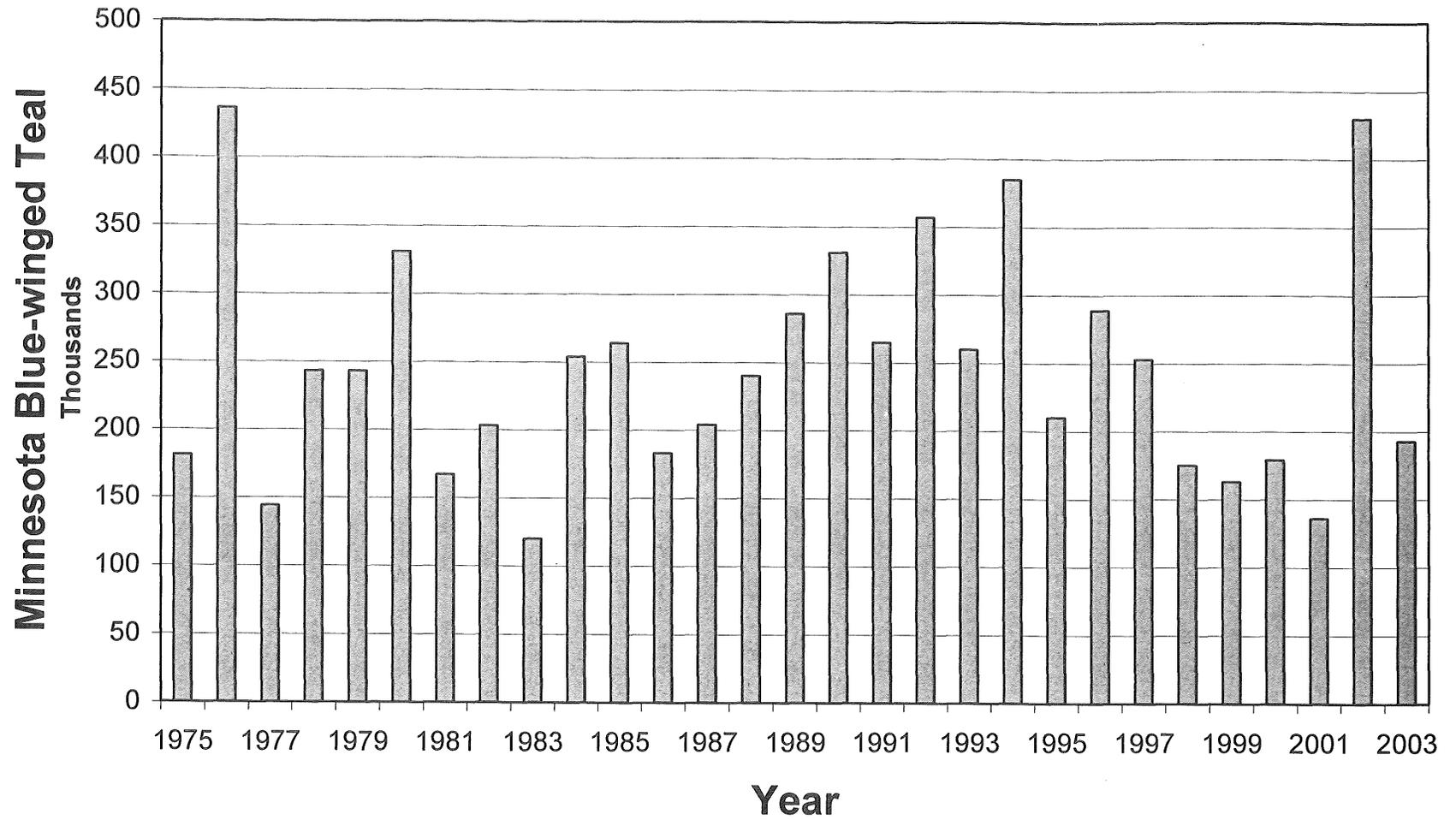


Figure 37. Minnesota blue-winged teal breeding populations, 1975-2003.

Table 22. Canada goose population indices (in thousands) of the eastern prairie flock, 1971-2003 (taken from: U.S. Fish and Wildlife Service/Canadian Wildlife Service, 2003. Waterfowl population status, 2003. July 2003. 53pp).

Year	Population ^{a,b}
1971-72	125,000
1972-73	138,000
1973-74	120,000
1974-75	144,000
1975-76	216,000
1976-77	164,000
1977-78	180,000
1978-79	99,000
1979-80	n.a.
1980-81	125,000
1981-82	132,000
1982-83	155,000
1983-84	136,000
1984-85	158,000
1985-86	195,000
1986-87	203,000
1987-88	209,000
1988-89	210,000
1989-90	232,000
1990-91	212,000
1991-92	202,000
1992-93	157,000
1993-94	211,000
1994-95	205,000
1995-96	190,000
1996-97	199,000
1997-98	126,000
1998-99	207,000
1999-00	275,000
2000-01	215,000
2001-02	216,000
2002-03	229,200

^a Surveys conducted in Spring.

^b Indirect or preliminary estimate.

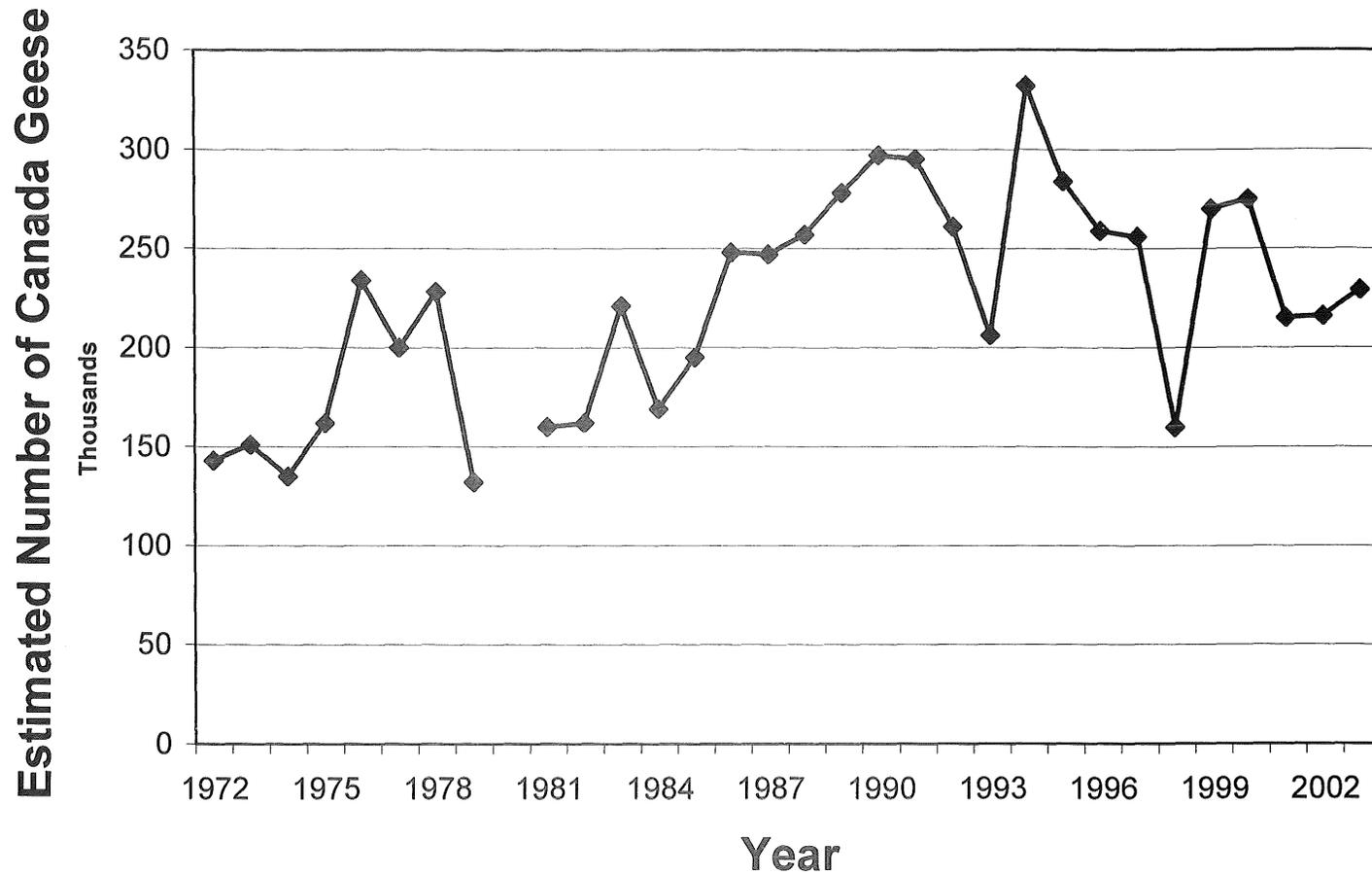


Figure 38. Breeding ground survey estimates of the Eastern Prairie Population of Canada geese, 1972-2003. (from: U.S. Fish and Wildlife Service/Canadian Wildlife Service reports 2003. Waterfowl population status, 2003. July 2003. 53 pp). Surveys conducted in spring. Indirect or preliminary estimates. Data not available for 1980.

Table 23. Estimates for EPP components and the population, 1972-2003. Estimates for geese represented by singles (excluding singles with nests) and pairs are "x 2" and are corrected for visibility (x 1.4). "Productive" geese are singles, pairs with nests or broods, and geese initially seen as a single (assumed to be a goose from a nest) and joined by another goose (assumed to be the gander). The estimate of grouped geese does not include groups larger than 15 birds from interior strata (assumed to be comprised largely of molting giant Canada geese).

YEAR	Singles (x2)		Pairs (x2)		Geese in groups		Singles + Pairs		Total EPP*		Productive	
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
72	40905	8225	54063	10573	29764	10885	94969	16696	124733	17260		
73	47952	8596	68630	14380	21063	7073	116581	18573	137644	18185		
74	35597	6608	61062	12716	23213	6859	96659	17136	119871	15887		
75	63995	11549	57542	9623	22815	8902	121536	18313	144353	17471		
76	70596	13556	97791	15596	48153	14684	168388	22089	216541	25350		
77	45459	9648	65348	12810	52961	14159	110808	19518	163769	21393		
78	27286	7131	83911	12659	68529	18475	111197	16696	179725	23504		
79	26850	6348	45989	9497	26537	9808	72839	12640	99377	15056		
80		No survey conducted in 1980										
81	31331	6787	47534	10109	46614	15183	78865	14480	125479	19462		
82	43020	8137	53407	8762	35375	12044	96427	13538	131802	16971		
83	27010	5836	65806	10061	62324	13944	92817	12215	155140	18159		
84	48636	8483	63369	9747	23500	8539	112004	14661	135505	15488	60309	9722
85	42983	9345	62613	10204	52846	14754	105595	16347	158442	20226	62419	11276
86	57014	10227	69365	12235	68395	15997	126379	18534	194773	22588	63848	11466
87	50297	9421	95557	14904	57332	15707	145854	19726	203186	23614	59710	10864
88	57739	8843	79245	11977	72199	21870	136984	17619	209183	26456	65079	9942
89	62557	9722	69545	11590	78067	17802	132103	16710	210169	23362	66416	10085
90	66729	10550	96669	12977	68439	15962	163398	18391	231836	23120	79555	11652
91	66190	12847	101237	15160	44381	15107	167427	23004	211809	24962	80607	15048
92	61950	9722	96456	14145	44139	11414	158406	19859	202545	20612	73739	11445
93	71553	10344	64690	11126	21229	7739	136242	16391	157473	17049	82761	11339
94	67681	11212	68556	11424	74545	18790	136237	17107	210782	24683	77668	11816
95	51117	8843	87859	12621	65603	21468	138976	17386	204578	26426	58452	9869
96	55304	9573	85671	13801	49388	15283	140975	19653	190363	22709	66679	10952
97	55536	9031	74578	11897	68795	20295	130539	18049	199336	25199	72347	11673
98	57161	10413	42137	8341	26606	11056	99298	15643	125904	17327	64269	11507
99	65242	10273	74250	12391	67256	13132	139492	18586	206748	20773	76585	11590
2000	32800	6927	97238	15795	145089	34685	130038	19345	275127	38736	40813	7898
2001	38656	8762	83570	13324	93135	23506	122237	17247	215361	28405	51899	9548
2002	66807	10731	84866	13142	64630	20161	151964	19095	216303	26351	81715	11997
2003	64806	10731	57565	11169	106815	29682	122382	18062	229187	33480	70708	11382

*The total EPP estimate and estimate of singles+pairs are derived separately from the estimates of individual components, minor rounding error results.

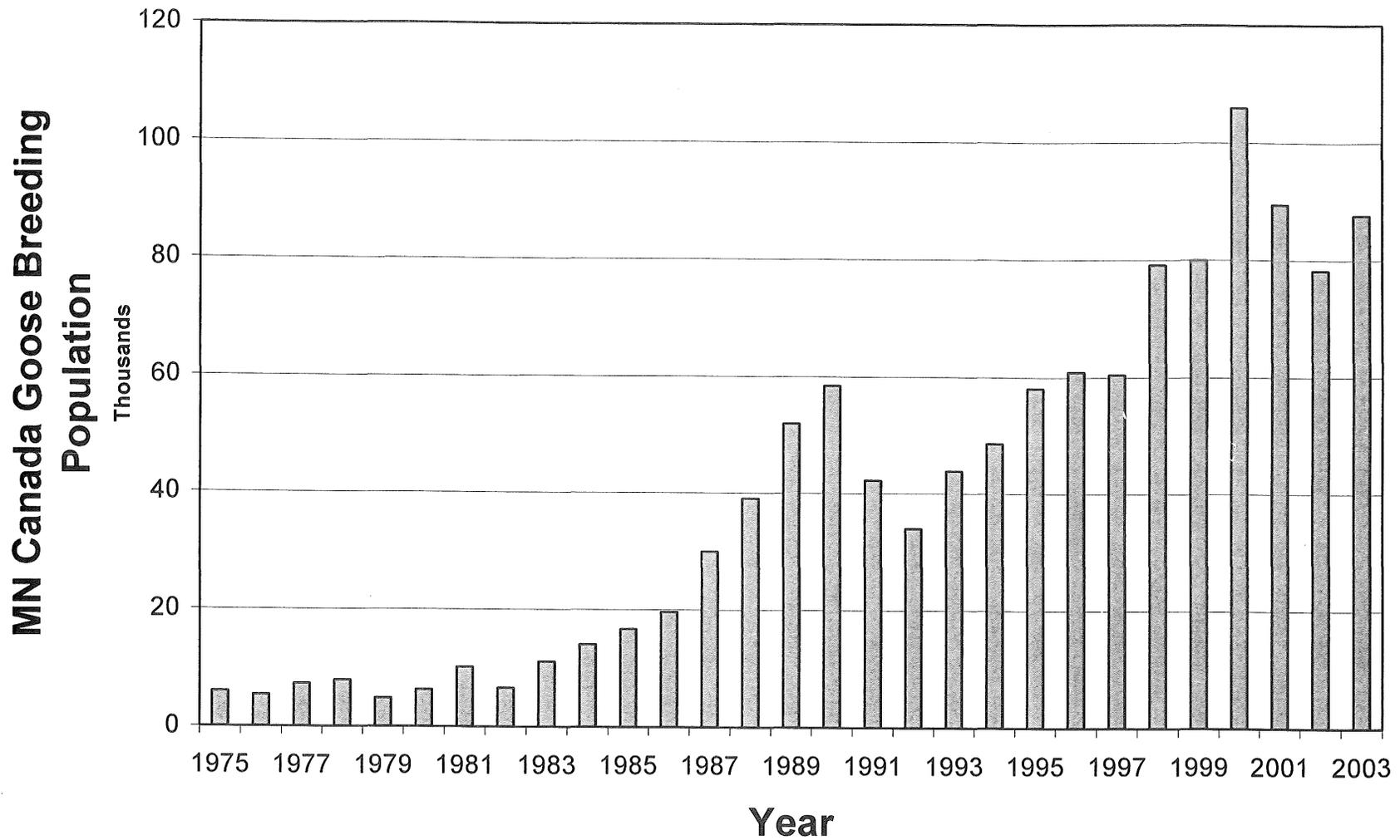


Figure 39. Minnesota Canada goose breeding population, 1975-2003 (from: Lawrence, J.S. 2003 waterfowl breeding population survey for Minnesota. Minnesota Department of Natural Resources and U.S. Fish and Wildlife Service. Unpublished report. 15 pp.)

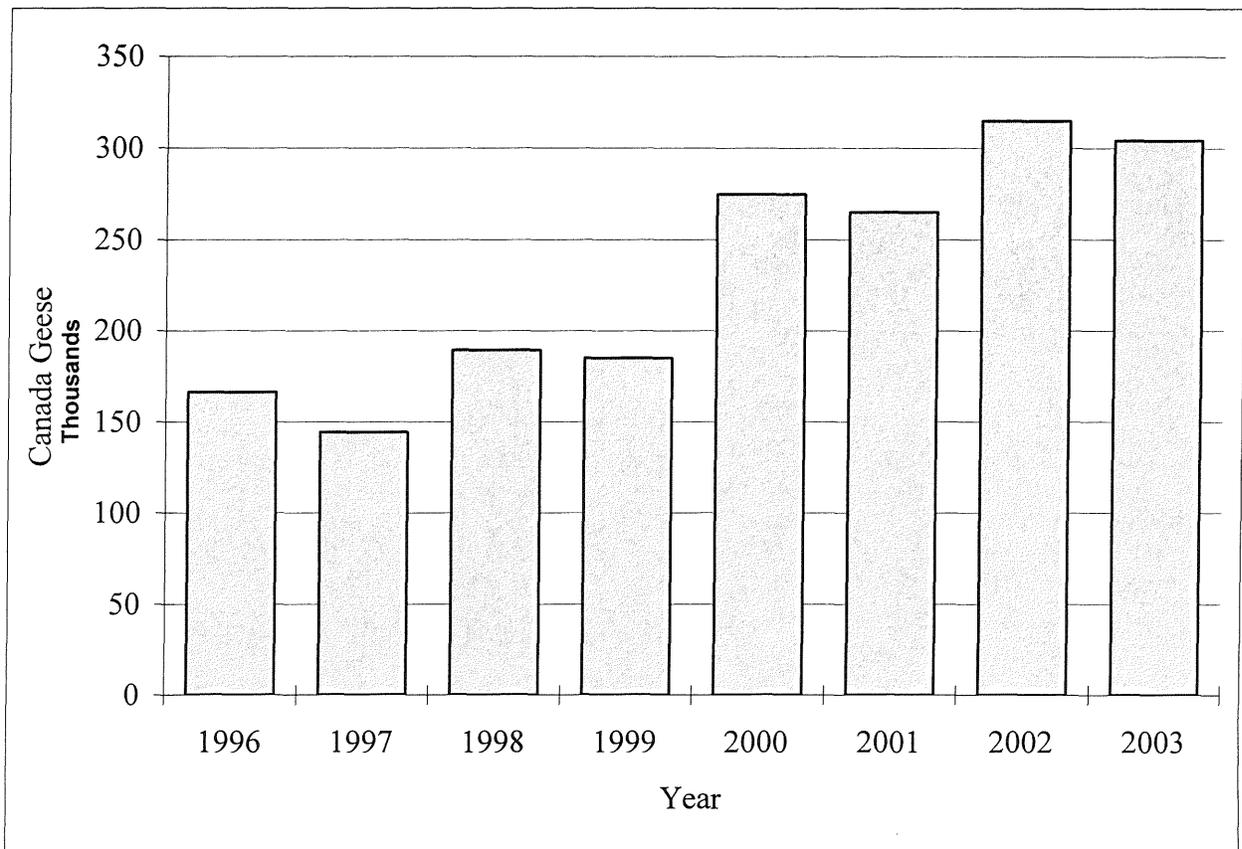


Figure 40. Estimated number of Canada geese in 9 goose management blocks (GMB) 1996-2003. Surveys were from a fixed wing aerial survey during May in Minnesota, 1996-2000. Does not include Metro or Northeast GMBs. 2001- 2002 data are from a helicopter survey during April in Minnesota. Does not include Metro GMB or Lake and Cook counties in the Northeast.

Table 24. Estimated number of May ponds (adjusted for visibility) in Prairie Canada (portions of Alberta, Saskatchewan and Manitoba) 1961-2003 and north-central U.S. (North Dakota, South Dakota and Montana) 1974-2003. (from: U.S. Fish and Wildlife Service/Canadian Wildlife Service, 2003. Waterfowl population status, 2003. July 2003. 53pp).

Year	Ponds (thousands)	
	Prairie Canada	North Central U.S. ^a
1961	1,977	--
1962	2,369	--
1963	2,482	--
1964	3,371	--
1965	4,379	--
1966	4,555	--
1967	4,691	--
1968	1,986	--
1969	3,548	--
1970	4,875	--
1971	4,053	--
1972	4,009	--
1973	2,950	--
1974	6,390	1,841
1975	5,320	1,911
1976	4,599	1,392
1977	2,278	771
1978	3,622	1,590
1979	4,859	1,522
1980	2,141	761
1981	1,443	683
1982	3,185	1,458
1983	3,906	1,259
1984	2,473	1,766
1985	4,283	1,327
1986	4,025	1,735
1987	2,524	1,348
1988	2,110	791
1989	1,693	1,290
1990	2,817	691
1991	2,494	706
1992	2,784	825
1993	2,261	1,351
1994	3,769	2,216
1995	3,893	2,443
1996	5,003	2,480
1997	5,061	2,397
1998	2,522	2,065
1999	3,862	2,842
2000	2,422	1,524
2001	2,747	1,893
2002	1,439	1,281
2003	3,522	1,668
Average	3,365	1,528
2003	3,522	1,668
% Change in 2003 from:		
2002	+ 145	+ 30
Long term Average	- 1	- 0

^a No comparable survey data available for the north-central U.S. during 1961-73.

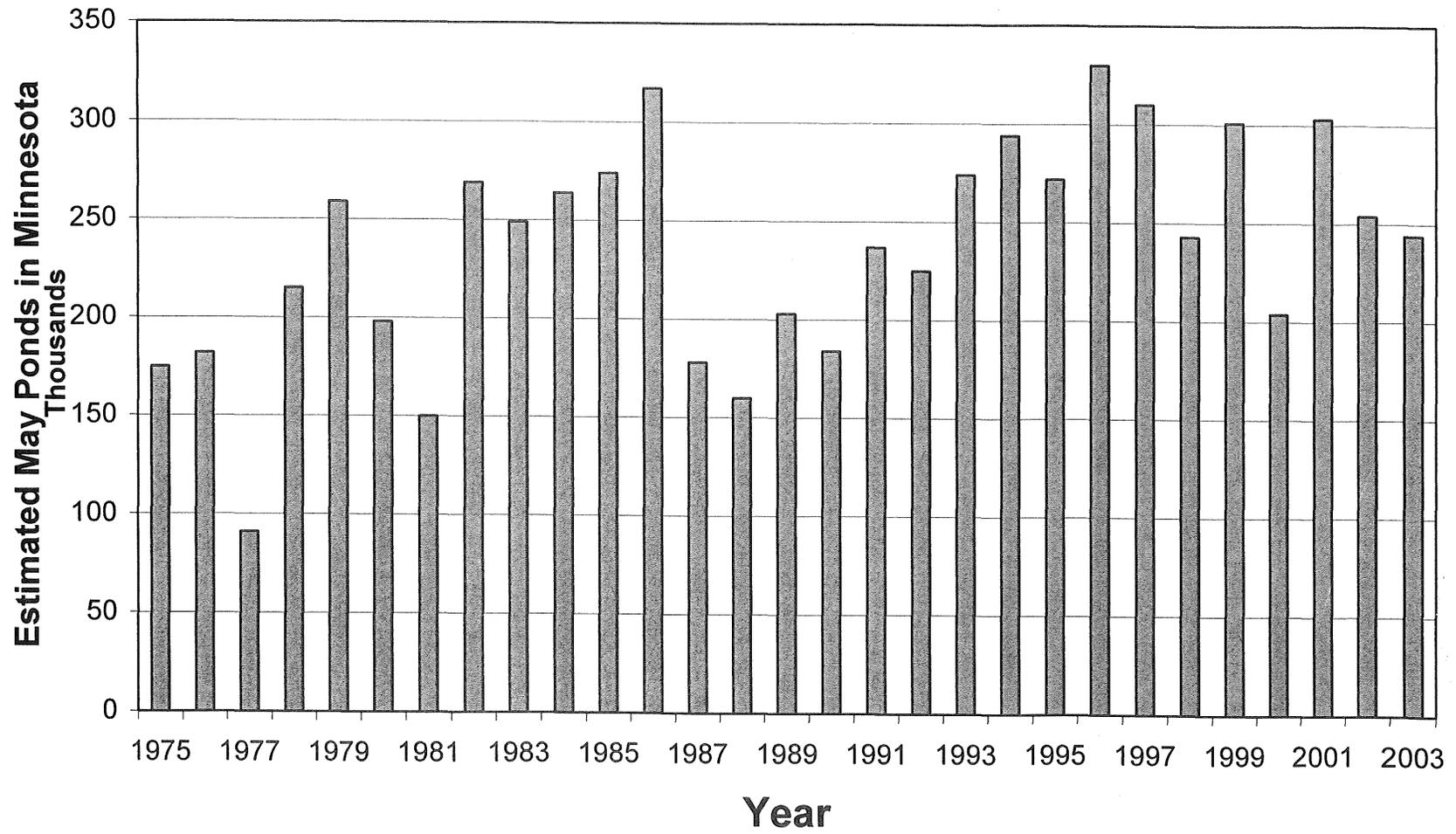


Figure 41. Estimated number of May ponds for Minnesota, 1975-2003.

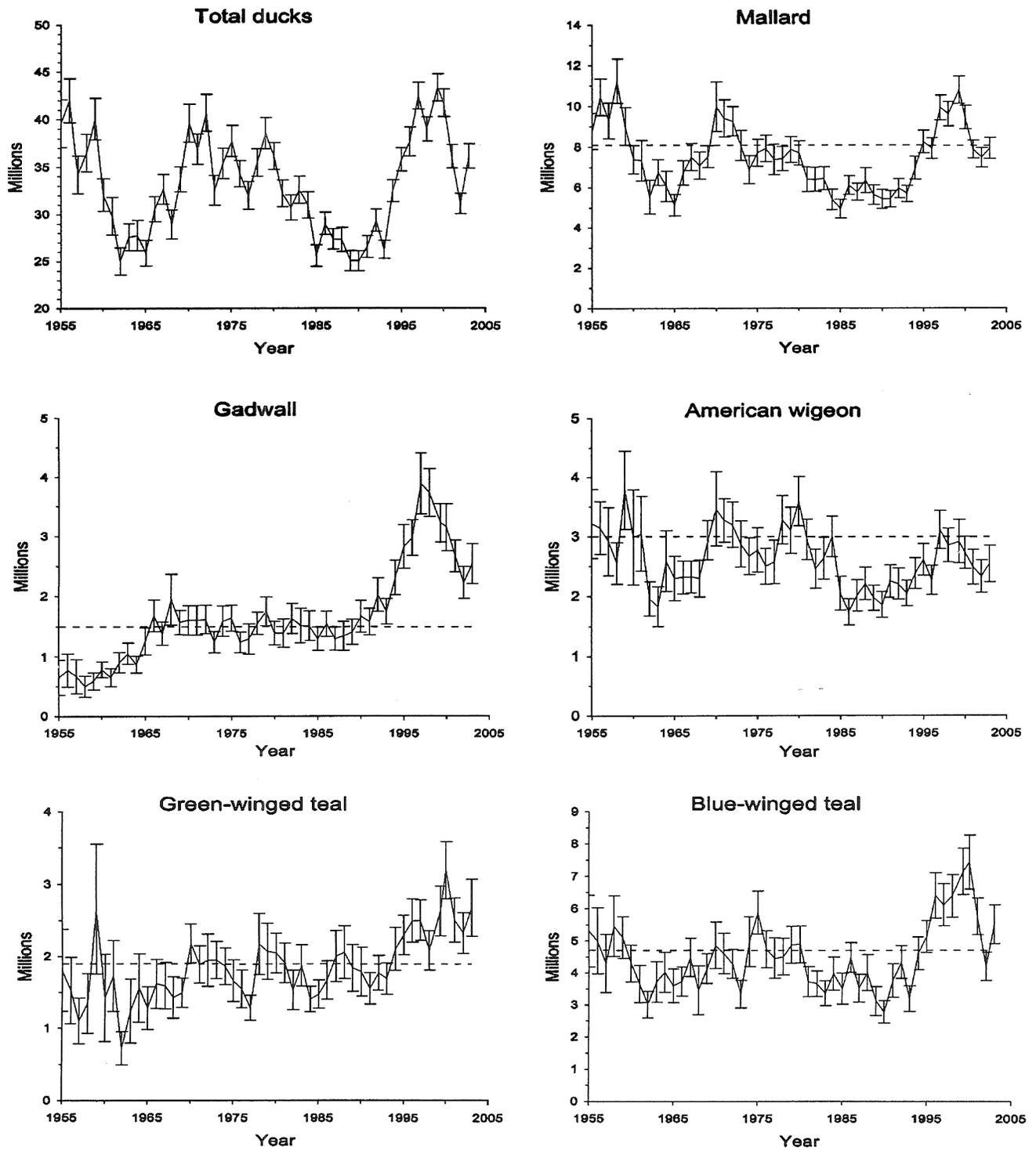


Figure 42. Estimates of North American breeding populations of selected ducks and number of water areas in May in Prairie Canada and Northcentral U.S. (from: U.S. Fish and Wildlife Service/Canadian Wildlife Service 2003. Waterfowl population status, 2003 July 2003. 53 pp).

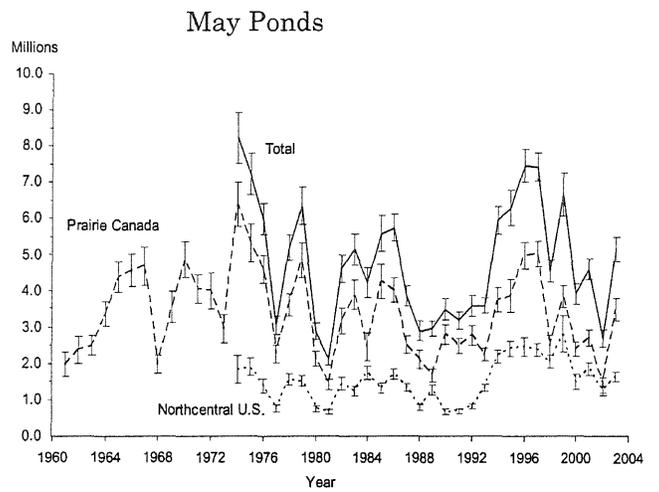
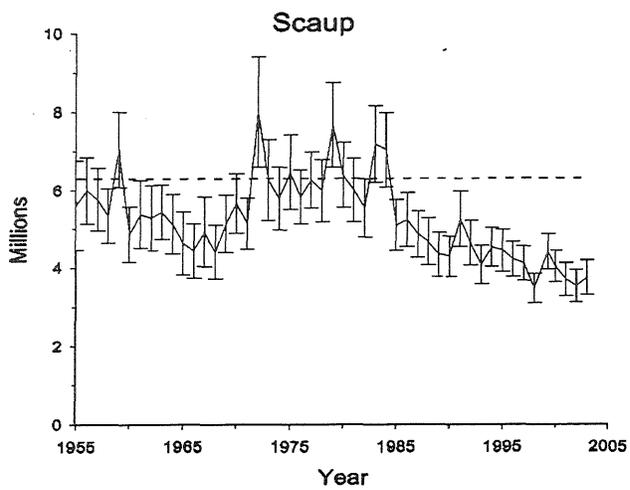
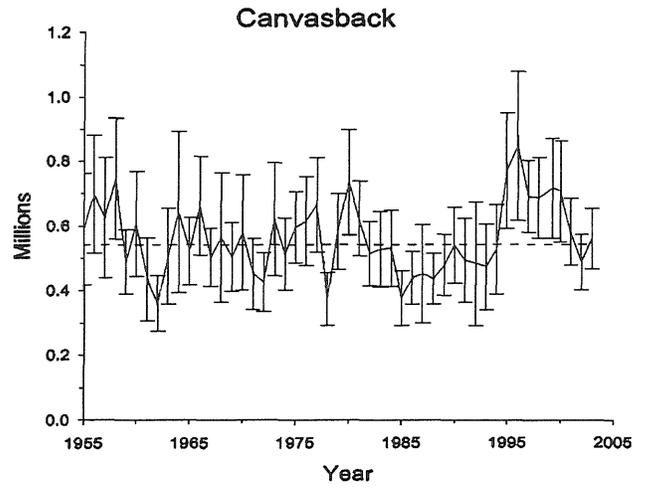
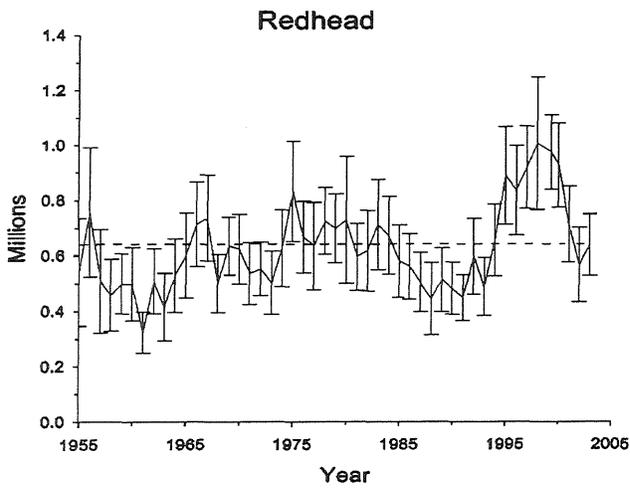
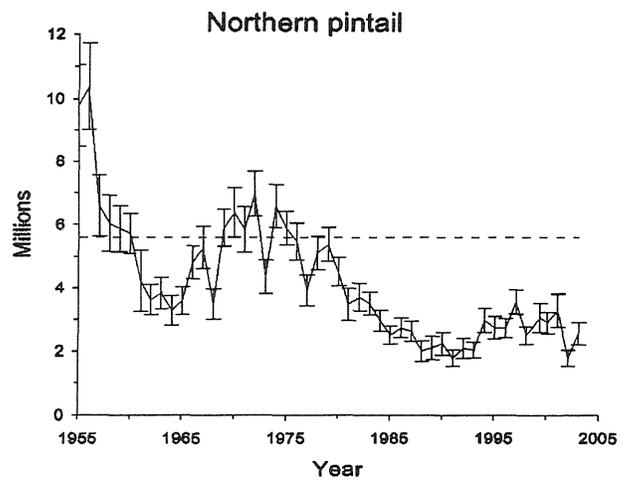
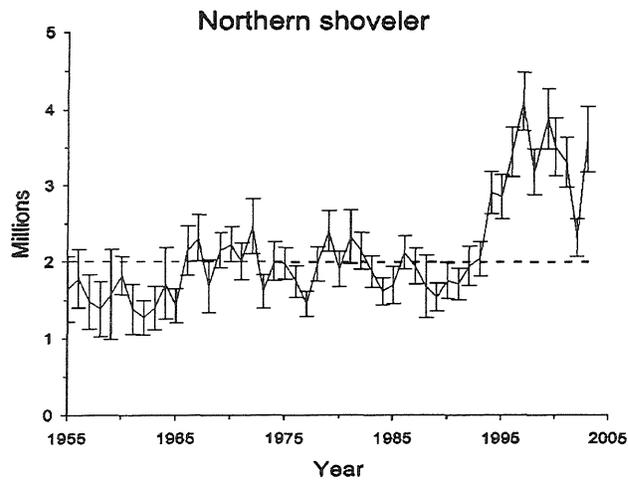


Figure 42. (continued)

Table 25. North American breeding population estimates for 10 species of ducks, 1955-2003. (from: U.S. Fish and Wildlife Service/ Canadian Wildlife Service, 2003. Waterfowl Population status, 2003. July 2003, 53 pp). In thousands. All duck indices adjusted for visibility bias.

Year	Mallard		Gadwall		American Widgeon		Green-winged Teal		Blue-winged Teal		Northern Shoveler		Northern Pintail		Redhead		Canvasback		Scaup		
	N	SE	N	SE	N	SE	N	SE	N	SE	N	SE	N	SE	N	SE	N	SE	N	SE	
1955	8777.3	457.1	651.5	149.5	3216.8	297.8	1807.2	291.5	5305.2	567.6	1642.8	218.7	9775.1	656.1	539.9	98.9	589.3	87.8	5620.1	582.1	
1956	10452.7	461.8	772.6	142.4	3145.0	227.8	1525.3	236.2	4997.6	527.6	1781.4	196.4	10372.8	694.4	757.3	119.3	698.5	93.3	5994.1	434.0	
1957	9296.9	443.5	666.8	148.2	2919.8	291.5	1102.9	161.2	4299.5	467.3	1476.1	181.8	6606.9	493.4	509.1	95.7	626.1	94.7	5766.9	411.7	
1958	11234.2	555.6	502.0	89.6	2551.7	177.9	1347.4	212.2	5456.6	483.7	1383.8	185.1	5037.9	447.9	457.1	66.2	746.8	96.1	5350.4	355.1	
1959	9024.3	466.6	590.0	72.7	3787.7	339.2	2653.4	469.3	5099.3	332.7	1577.6	301.1	5872.7	371.6	498.8	55.5	488.7	50.6	7037.6	492.3	
1960	7371.7	354.1	784.1	68.4	2987.6	407.0	1426.9	311.0	4293.0	294.3	1824.5	130.1	5722.2	323.2	497.8	67.0	605.7	82.4	4868.6	362.5	
1961	7330.0	510.5	654.8	77.5	3048.3	319.9	1729.3	251.5	3655.3	398.7	1383.0	166.5	4218.2	496.2	323.3	38.8	435.3	65.7	5380.0	442.2	
1962	5535.9	426.9	905.1	87.0	1958.7	145.4	722.9	117.6	3011.1	209.8	1269.0	113.9	3623.5	243.1	507.5	60.0	360.2	43.8	5286.1	426.4	
1963	6748.8	326.8	1055.3	89.5	1830.8	169.9	1242.3	226.9	3723.6	323.0	1398.4	143.8	3846.0	255.6	413.4	61.9	506.2	74.9	5438.4	357.9	
1964	6063.9	385.3	873.4	73.7	2589.6	259.7	1561.3	244.7	4020.6	320.4	1718.3	240.3	3291.2	239.4	528.1	67.3	643.6	126.9	5131.8	386.1	
1965	5131.7	274.8	1260.3	114.8	2301.1	189.4	1282.0	151.0	3594.5	270.4	1423.7	114.1	2591.9	221.9	599.3	77.7	522.1	52.8	4640.0	411.2	
1966	6731.9	311.4	1680.4	132.4	2318.4	139.2	1617.3	173.6	3733.2	233.6	2147.0	163.9	4811.9	265.6	713.1	77.6	663.1	78.0	4439.2	356.2	
1967	7509.5	338.2	1384.6	97.8	2325.5	136.2	1593.7	165.7	4491.5	305.7	2314.7	154.6	5277.7	341.9	735.7	79.0	502.6	45.4	4927.7	456.1	
1968	7089.2	340.8	1949.0	213.9	2298.6	156.1	1430.9	146.6	3462.5	389.1	1684.5	176.8	3489.4	244.6	499.4	53.6	563.7	101.3	4412.7	351.8	
1969	7531.6	280.2	1573.4	100.2	2941.4	168.6	1491.0	103.5	4138.6	239.5	2156.8	117.2	5903.9	296.2	633.2	53.6	503.5	53.7	5139.8	378.5	
1970	9985.9	617.2	1608.1	123.5	3469.9	318.5	2182.5	137.7	4861.8	372.3	2230.4	117.4	6392.0	396.7	622.3	64.3	502.1	90.4	5662.5	391.4	
1971	9416.4	459.5	1605.6	123.0	3272.9	186.2	1889.3	132.9	4610.2	322.8	2011.4	122.7	5847.2	368.1	534.4	57.0	450.7	55.2	5143.3	333.8	
1972	9265.5	363.9	1622.9	120.1	3200.1	194.1	1948.2	185.8	4278.5	230.5	2466.5	182.8	6979.0	364.5	550.9	49.4	425.9	46.0	7997.0	718.0	
1973	8079.2	377.5	1245.6	90.3	2877.9	197.4	1949.2	131.9	3332.5	220.3	1619.0	112.2	4356.2	267.0	530.8	57.7	620.5	89.1	6257.4	523.1	
1974	6880.2	351.8	1592.4	128.2	2672.0	159.3	1864.5	131.2	4976.2	394.6	2011.3	129.9	6598.2	345.8	626.3	70.8	512.8	56.8	5780.5	409.8	
1975	7726.9	344.1	1643.9	109.0	2778.3	192.0	1664.8	148.1	5885.4	337.4	1980.8	106.7	5900.4	267.3	831.9	93.5	595.1	56.1	6460.0	486.0	
1976	7933.6	337.4	1244.8	85.7	2505.2	152.7	1547.5	134.0	4744.7	294.5	1748.1	106.9	5475.6	299.2	665.9	66.3	614.4	70.1	5818.7	348.7	
1977	7397.1	381.8	1299.0	126.4	2575.1	185.9	1285.8	87.9	4462.8	328.4	1451.8	82.1	3926.1	246.8	634.0	79.9	664.0	74.9	6260.2	362.8	
1978	7425.0	307.0	1558.0	92.2	3282.4	208.0	2174.2	219.1	4498.6	293.3	1975.3	115.6	5108.2	267.8	724.6	62.2	373.2	41.5	5984.4	403.0	
1979	7883.4	327.0	1757.9	121.0	3106.5	198.2	2071.7	198.5	4875.9	297.6	2406.5	135.6	5376.1	274.4	697.5	63.8	582.0	59.8	7657.9	548.6	
1980	7706.5	307.2	1392.9	98.8	3595.5	213.2	2049.9	140.7	4895.1	295.6	1908.2	119.9	4508.1	228.6	728.4	116.7	734.6	83.8	6381.7	421.2	
1981	6409.7	308.4	1395.4	120.0	2946.0	173.0	1910.5	141.7	3720.6	242.1	2333.6	177.4	3479.5	260.5	594.9	62.0	620.8	59.1	5990.9	414.2	
1982	6408.5	302.2	1633.8	126.2	2458.7	167.3	1535.7	140.2	3657.6	203.7	2147.6	121.7	3708.8	226.6	616.9	74.2	513.3	50.9	5532.0	380.9	
1983	6456.0	286.9	1519.2	144.3	2636.2	181.4	1875.0	148.0	3366.5	197.2	1875.7	105.3	3510.6	178.1	711.9	83.3	526.6	58.9	7173.8	494.9	
1984	5415.3	258.4	1515.0	125.0	3002.2	174.2	1408.2	91.5	3979.3	267.6	1618.2	91.9	2964.8	166.8	671.3	72.0	530.1	60.1	7024.3	484.7	
1985	4960.9	234.7	1303.0	98.2	2050.7	143.7	1475.4	100.3	3502.4	246.3	1702.1	125.7	2515.5	143.0	578.2	67.1	375.9	42.9	5098.0	333.1	
1986	6124.2	241.6	1547.1	107.5	1736.5	109.9	1674.9	136.1	4478.8	237.1	2128.2	112.0	2739.7	152.1	559.6	60.5	438.3	41.5	5235.3	355.5	
1987	5789.9	217.9	1305.6	97.1	2012.5	134.3	2006.2	180.4	3528.7	220.2	1950.2	118.4	2628.3	159.4	502.4	54.9	450.1	77.9	4862.7	303.8	
1988	6369.3	310.3	1349.9	121.1	2211.1	139.1	2060.8	188.3	4011.1	290.4	1680.9	210.4	2005.5	164.0	441.9	66.2	435.0	40.2	4671.4	309.5	
1989	5645.4	244.1	1414.6	106.6	1972.9	106.0	1841.7	166.4	3125.3	229.8	1538.3	95.9	2111.9	181.3	510.7	58.5	477.4	48.4	4342.1	291.3	
1990	5452.1	238.6	1672.1	135.8	1860.1	108.3	1789.5	172.7	2776.4	178.7	1759.3	118.6	2256.6	183.3	480.9	48.2	539.3	60.3	4293.1	264.9	
1991	5444.6	205.6	1583.7	111.8	2254.0	139.5	1557.8	111.3	3763.7	270.8	1716.2	104.6	1803.4	131.3	445.6	42.1	491.2	66.4	5254.9	364.9	
1992	5976.1	241.0	2032.8	143.4	2208.4	131.9	1773.1	123.7	4333.1	263.2	1954.4	132.1	2098.1	161.0	595.6	69.7	481.5	97.3	4639.2	291.9	
1993	5708.3	208.9	1755.2	107.9	2053.0	109.3	1694.5	112.7	3192.9	205.6	2046.5	114.3	2053.4	124.2	485.4	53.1	472.1	67.6	4080.1	249.4	
1994	6980.1	282.8	2318.3	145.2	2382.3	130.3	2108.4	152.2	4616.2	259.2	2912.0	141.4	2972.3	188.0	653.5	66.7	525.6	71.1	4529.0	253.6	
1995	8269.4	287.5	2835.7	187.5	2614.5	136.3	2300.6	140.3	5140.0	253.3	2854.9	150.3	2757.9	177.6	888.5	90.6	770.6	92.2	4446.4	277.6	
1996	7941.3	262.9	2984.0	152.5	2271.7	125.4	2499.5	153.4	6407.4	353.9	3449.0	165.7	2735.9	147.5	834.2	83.1	848.5	118.3	4217.4	234.5	
1997	9939.7	308.5	3897.2	264.9	3117.6	161.6	2506.6	142.5	6124.3	330.7	4120.4	194.0	3558.0	194.2	918.3	77.2	688.8	57.2	4112.3	224.2	
1998	9640.4	301.6	3742.2	205.6	2857.7	145.3	2087.3	138.9	6398.8	332.3	3183.9	156.5	2520.6	136.8	1005.1	122.9	685.9	63.8	3471.9	191.2	
1999	10805.7	344.5	3235.5	163.8	2920.1	185.5	2631.0	174.6	7149.5	364.5	3889.5	202.1	3057.9	230.5	973.4	69.5	716.0	79.1	4411.7	227.9	
2000	9470.2	290.2	3158.4	200.7	2733.1	138.8	3193.5	200.1	7431.4	425.0	3520.7	197.9	2907.6	170.5	926.3	78.1	706.8	81.0	4026.3	205.3	
2001	7904.0	226.9	2679.2	136.1	2493.5	149.6	2508.7	156.4	5757.0	288.8	3313.5	166.8	3296.0	266.6	712.0	70.2	579.8	52.7	3694.0	214.9	
2002	7503.7	246.5	2235.4	135.4	2334.4	137.9	2333.5	143.8	4206.5	227.9	2318.2	125.6	1789.7	125.2	564.8	69.0	486.6	43.8	3524.1	210.3	
2003	7949.7	267.3	2549.0	169.9	2551.4	156.9	2678.5	199.7	5518.2	312.7	3619.6	221.4	2558.2	174.8	636.8	56.6	557.6	48.0	3734.4	225.5	
1955-02 Avg.	7503.0		1645.6		2639.3		1832.0		4486.9		2104.2		4174.6		625.0		561.9		5280.6		
% change in 2003 from:																					
2002	5.9		14.0		9.3		14.8		31.2		56.1		42.9		12.7		14.6		6.0		
1955-02 Avg.	0.0		26		-13		21		-7		9		-133		-11		-15		-50		

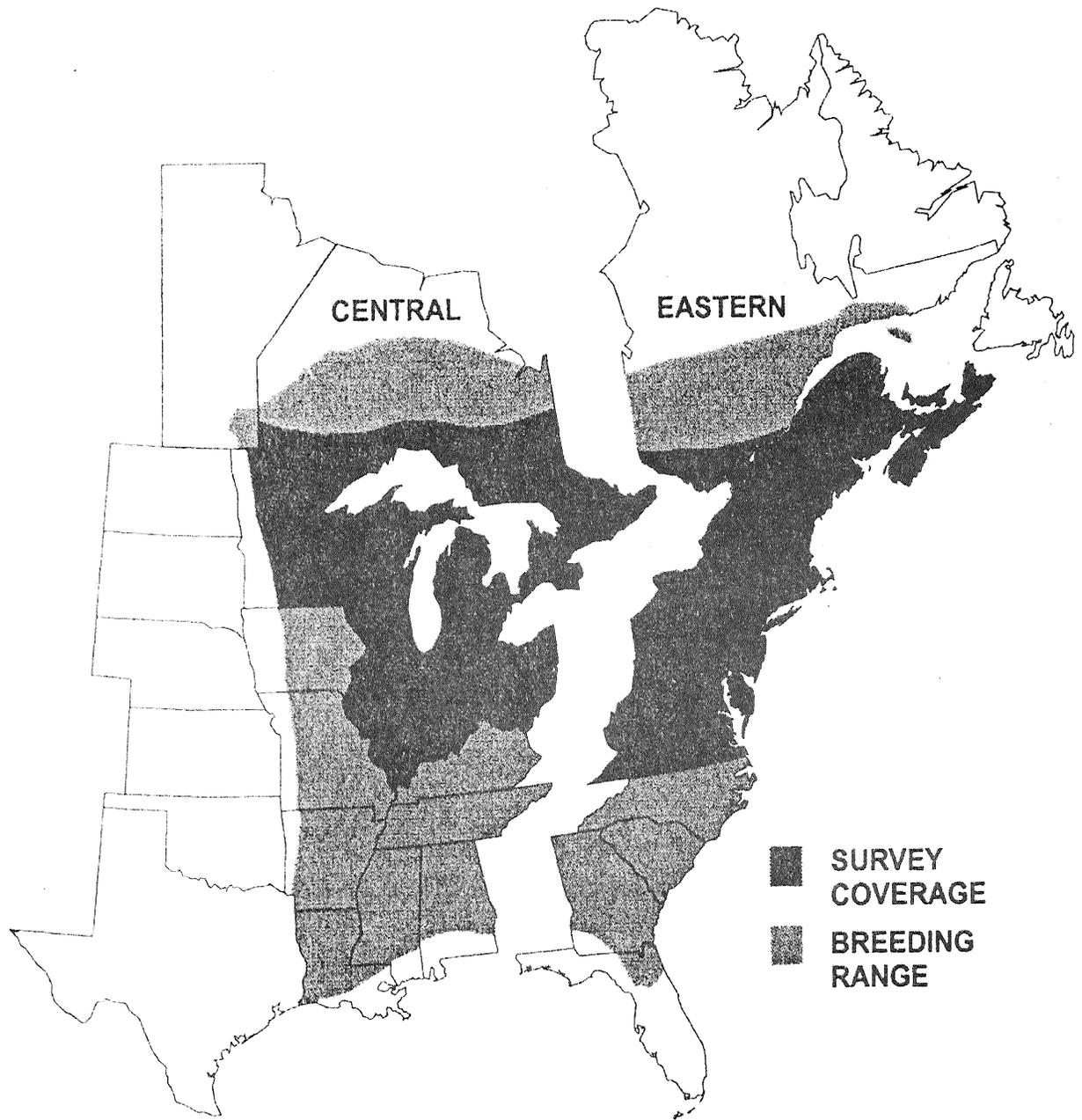


Figure 43. Woodcock management regions, breeding range, singing-ground survey coverage, (from: Kelley, J.R., Jr., 2003. American woodcock population status, 2003. U.S. Fish and Wildlife Service, Laurel, MD. 20pp.)

Table 26. Trends (% change per year^a) in number of American woodcock heard in singing-ground survey as determined by the estimating equations technique (Link and Sauer, 1994) (from: Kelley, J.R., Jr., 2003. American woodcock population status, 2003. U.S. Fish and Wildlife Service, Office of Migratory Bird Management, Laurel, MD. 20pp).

Management Unit/State	2 year N ^b	(2002-03) % Change	Routes Run ^c	10 year N	(1993-03) % Change	35 year N	(1968-03) % Change
CENTRAL	151	8.7	343	404	-1.6*** ^d	614	-1.8***
IL	0		14	4	13.0	23	23.4
IN	2	0.0	17	7	-12.4	38	-6.1*
MB ^e	9	31.7	18	20	-4.0*	20	-3.5**
MI	43	11.3	89	109	-1.2	143	-1.7***
MN	46	5.5	72	79	-0.4	99	-1.1**
OH	9	-9.9	30	27	-10.6**	55	-6.3***
ON	0		34	87	-3.2	136	-1.6***
WI	41	7.9	69	71	-1.7	100	-1.9***

^a Mean of weighted route trends within each State, Province, or Region. To estimate the total percent change over several years, use: $100(\% \text{ change}/100+1)^y-100$ where y is the number of years.

Note: extrapolating the estimated trend statistic (% change per year) over time (e.g., 30 years) may exaggerate the total change over the period.

^b Total number of routes surveyed in 2003 for which data were received by 30 May.

^c Number of comparable routes (2002 versus 2003) with at least 2 non-zero counts.

^d Indicates slope is significantly different from zero: * $P \leq 0.10$; ** $P \leq 0.05$; *** $P \leq 0.01$; significance levels are approximate for states where $N < 10$.

^e Manitoba began participating in the Singing-ground survey in 1990.

^f Data not received from PEI for the 2002 and 2003 surveys. Trend is for the period 1993-2001.

^g Data not received from PEI for the 2002 and 2003 surveys. Trend is for the period 1968-2001.

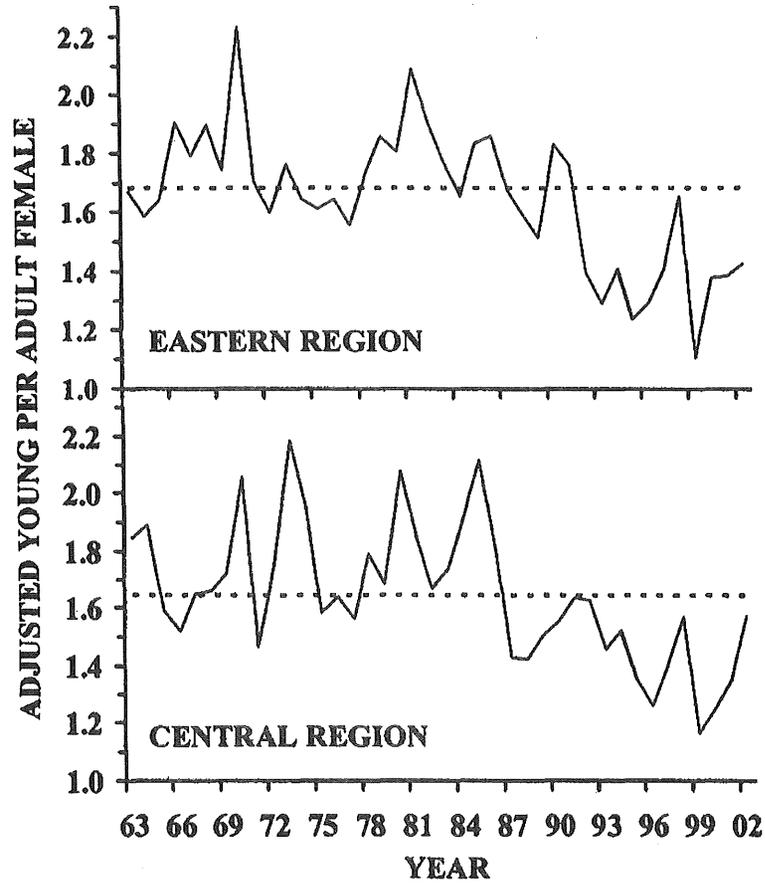


Figure 44. Adjusted index of American woodcock recruitment, 1963-2002. Dashed line is the index based on all 1963-2001 average. (from: Kelley, J.R., Jr. 2003. American woodcock population status, 2003. U.S. Fish and Wildlife Service, Laurel, MD. 20pp).

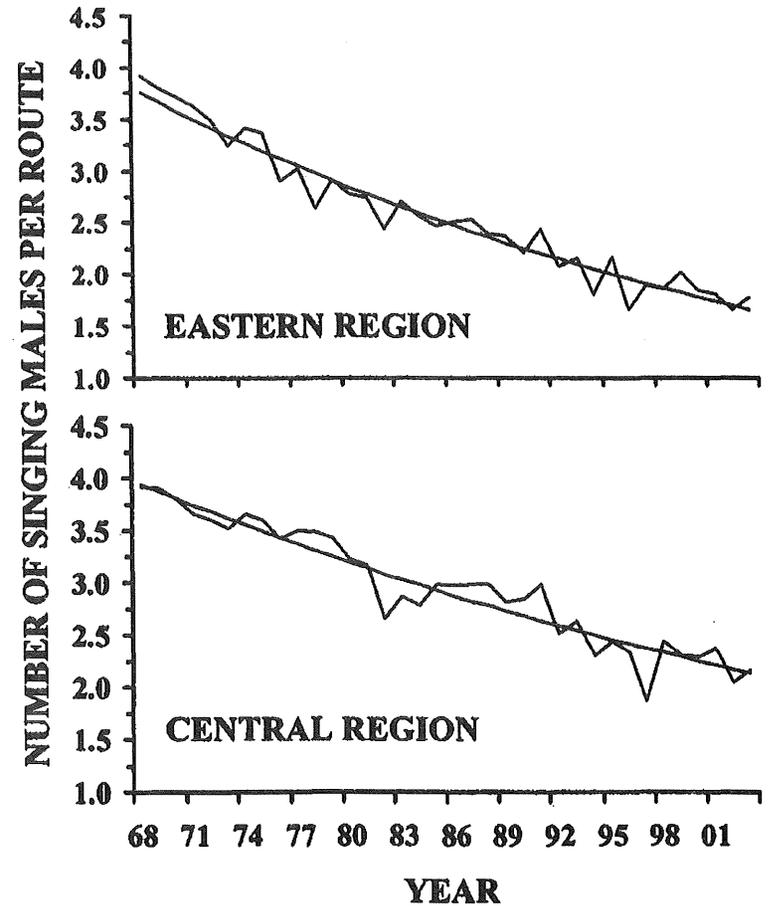


Figure 45. American woodcock singing ground survey long term trends and annual indices, 1968-03. (from: Kelley, J.R., Jr. 2003. American woodcock population status, 2003. U.S. Fish and Wildlife Service, Laurel, MD. 20pp)

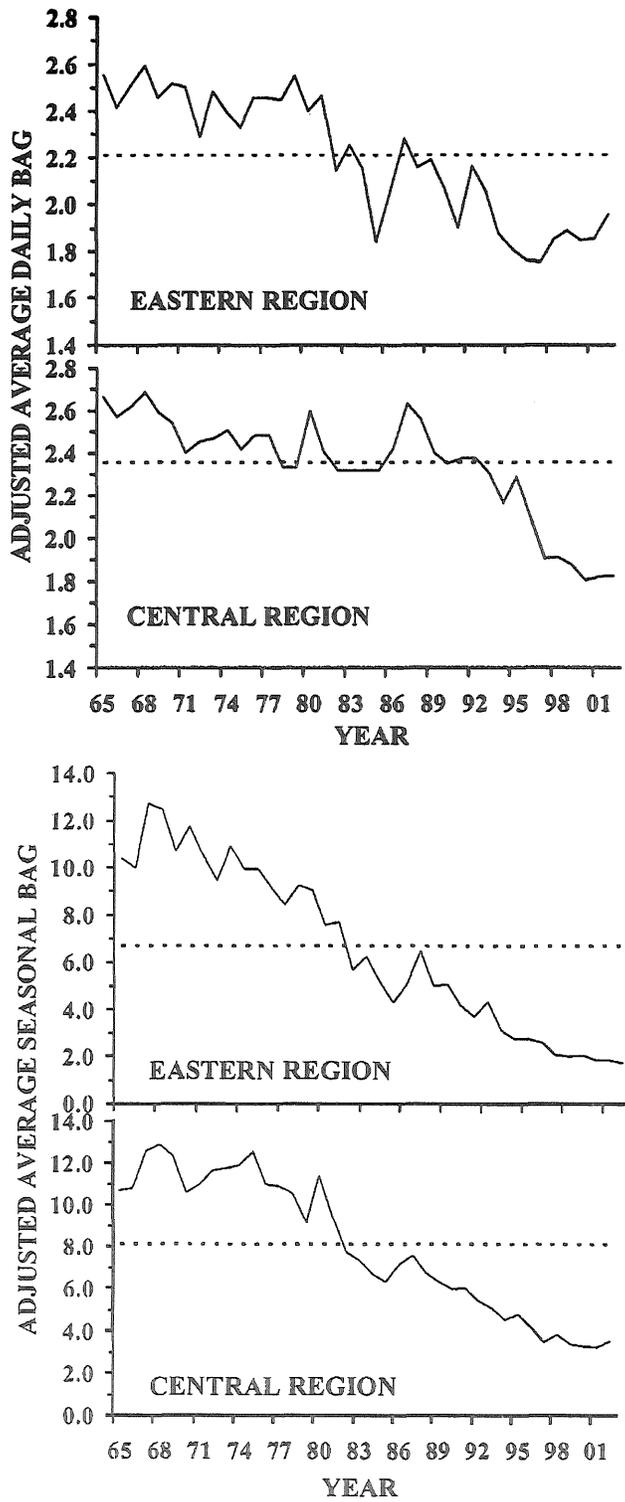


Figure 46. Adjusted indices of daily and seasonal hunting success of American woodcock, 1965-2002, Base year is 1969. Dashed line is 1965-01 average. (from: Kelley, J.R., Jr. 2003. American woodcock population status, 2003. U.S. Fish and Wildlife Service, Laurel, MD. 20pp).

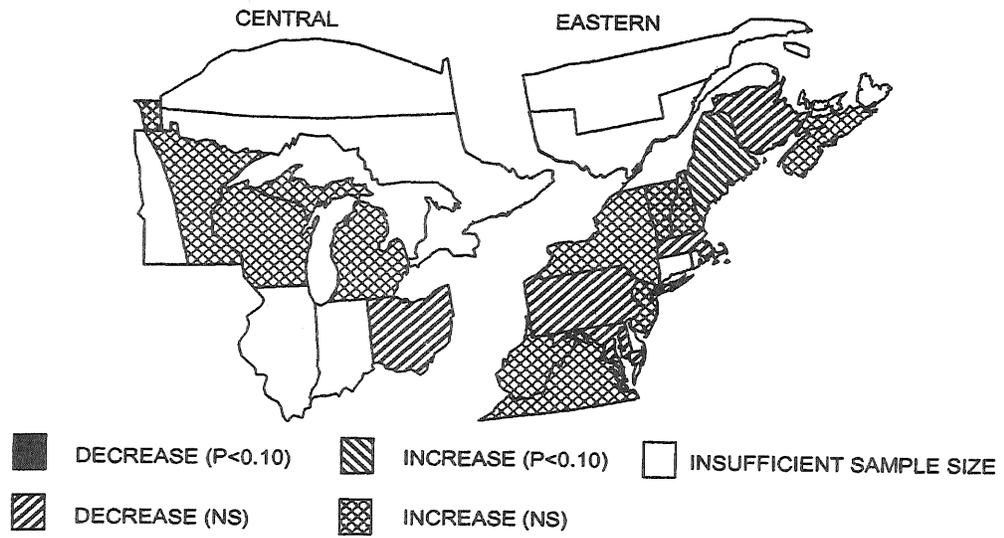


Figure 47. Short-term trends in number of American woodcock heard on the Singing-ground Survey; 2002-03. (from: Kelley, J.R., Jr. 2003. American woodcock population status, 2003. U.S. Fish and Wildlife Service, Laurel, MD. 20pp)

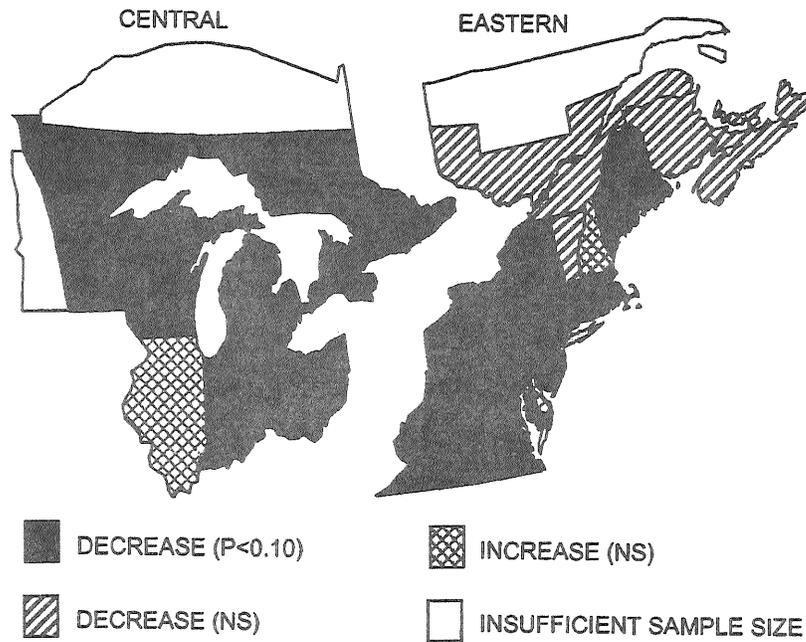


Figure 48. Long-term trends in number of American woodcock heard on the Singing-ground Survey; 1968-03. (from: Kelley, J.R., Jr. 2003. American woodcock population status, 2003. U.S. Fish and Wildlife Service, Laurel, MD. 20pp)

A HISTORY OF MINNESOTA WATERFOWL REGULATIONS,
1915-2001

Wetland Wildlife Populations and Research
102 23rd Street
Bemidji, MN 56601
(218) 755-2973

Table 27. Minnesota Waterfowl Hunting Regulations 1915-2002.

DUCK SEASON																												
Year	Dates				Shooting Hours				Bag limits												Mergansers		Coot Daily Bag					
	Open	Day	Close	Length	Opener	Start	End	Last Day 4 P.M.	Aqua Fowl	Ducks Daily	Ducks Poss.	Bonus	MAL	Mat F	BLK	PIN	Species Restrictions					Daily Bag		Inc. no more flooded				
1915	07-Sep	Tues	01-Dec	86		sunrise	sunset		10+15duck	15	45																	
1916	07-Sep	Thur	01-Dec	86		sunrise	sunset		10+15duck	15	45																	
1917	16-Sep	Sun	01-Dec	77		sunrise	sunset		10+15duck	15	45																	
1918	07-Sep	Sat	01-Dec	86		sunrise	sunset		10+15duck	15	45																	
1919	16-Sep	Tues	31-Dec	107		sunrise	sunset		15	15	45																	15
1920	16-Sep	Thur	31-Dec	107		sunrise	sunset		15	15	45																	15
1921	16-Sep	Fri	31-Dec	107		sunrise	sunset		15	15	45																	15
1922	16-Sep	Sat	31-Dec	107		sunrise	sunset		15	15	45																	15
1923	16-Sep	Sun	31-Dec	107		1/2 hr before	sunset		15	15	45																	15
1924	16-Sep	Tues	31-Dec	107		1/2 hr before	sunset		15	15	45																	15
1925	16-Sep	Wed	31-Dec	107		1/2 hr before	sunset			12	36																	12
1926	16-Sep	Thur	31-Dec	107		1/2 hr before	sunset			12	36																	12
1927	16-Sep	Fri	31-Dec	107		1/2 hr before	sunset			12	36																	12
1928	16-Sep	Sun	31-Dec	107		1/2 hr before	sunset			12	36																	12
1929	16-Sep	Mon	31-Dec	107		1/2 hr before	sunset			12	36																	12
1930	16-Sep	Tues	31-Dec	107		1/2 hr before	sunset			12	30																	12
1931	01-Oct	Thur	31-Dec	92	noon	1/2 hr before	sunset			12	30																	12
1932	01-Oct	Sat	30-Nov	61	noon	1/2 hr before	sunset			12	30										closed	10	10	closed	closed			12
1933	01-Oct	Sun	30-Nov	61	noon	1/2 hr before	sunset			12	24										closed	8	8	closed	closed			12
1934	03-Oct	Wed	11-Nov	40	noon	sunrise	sunset			12	24										closed	5	5	closed	closed			12
1935	21-Oct	Mon	19-Nov	30	noon	7 am	4 pm			10	10										closed			closed	closed			10
1936	10-Oct	Sat	08-Nov	30	noon	7 am	4 pm			10	10										closed	closed	closed	closed	closed			10
1937	09-Oct	Sat	07-Nov	30		7 am	4 pm			10	10										closed	closed	closed	closed	closed			12
1938	01-Oct	Sat	14-Nov	45		7 am	4 pm			10	20										closed	3	3					12
1939	01-Oct	Sun	14-Nov	45		7 am	4 pm			10	20										closed	3	3					15
1940	01-Oct	Tues	29-Nov	60		sunrise	4 pm			10	20										closed	3	3					15
1941	01-Oct	Wed	29-Nov	60		sunrise	4 pm			10	20										closed		3					25
1942	26-Sep	Sat	04-Dec	70		sunrise	sunset			10	20										1		3					25
1943	25-Sep	Sat	03-Dec	70		1/2 hr before	sunset			10	20										1		3					25
1944	20-Sep	Wed	08-Dec	80		1/2 hr before	sunset			10	20										1							25
1945	20-Sep	Thur	08-Dec	80		sunrise	sunset			10	20										1					25		25
1946	05-Oct	Sat	18-Nov	45		1/2 hr before	1/2 hr before			7	14										1					25		25
1947	07-Oct	Tues	05-Nov	30	noon	sunrise	1 hr before			4	8										1					25		25
1948	08-Oct	Fri	06-Nov	30	noon	1/2 hr before	1 hr before			4	8										1					25		15
1949	07-Oct	Fri	15-Nov	40	noon	1/2 hr before	1 hr before			4	8										1					25		10
1950	06-Oct	Fri	09-Nov	35	noon	1/2 hr before	1 hr before			4	8										1					25		10
1951	05-Oct	Fri	18-Nov	45	noon	1/2 hr before	1 hr before			4	8										1					25		10
1952	01-Oct	Wed	24-Nov	55	noon	1/2 hr before	1 hr before			4	8										1					25		10
1953	03-Oct	Sat	26-Nov	55	noon	1/2 hr before	sunset			4	8										closed					25	1	10
1954	02-Oct	Sat	25-Nov	55	noon	1/2 hr before	sunset			4	8										closed						1	10
1955	08-Oct	Sat	16-Dec	70	noon	1/2 hr before	1/2 hr before			4	8										closed						1	10
1956	06-Oct	Sat	29-Nov	55	noon	1/2 hr before	1/2 hr before			5	10										closed						1	10
1957	05-Oct	Sat	13-Dec	70	noon	1/2 hr before	sunset			4	8										closed					5	1	10
1958	04-Oct	Sat	12-Dec	70	noon	1/2 hr before	sunset			4	8										closed	2	2			5	1	10
1959	07-Oct	Wed	25-Nov	50	noon	sunrise	sunset			3	6										1	or 1	or 1			5	1	3
1960	08-Oct	Sat	16-Nov	40	noon	1/2 hr before	sunset			4	8										1	closed	closed			5	1	6
1961	14-Oct	Sat	12-Nov	30	noon	sunrise	sunset			2	4										1	closed	closed			5	1	6
1962	13-Oct	Sat	06-Nov	25	noon	sunrise	sunset			2	4	2/4 Is	1		or 1						2	closed	closed			5	1	6/6
1963	05-Oct	Sat	08-Nov	35	noon	sunrise	sunset			3	6			2	or 2						2	closed	closed			5	2	8/16
1964	03-Oct	Sat	11-Nov	40	noon	sunrise	sunset			4	8			2/4							2/2	2/2	or 2/2			5/10	1/2	10/20
1965	09-Oct	Sat	17-Nov	40	noon	sunrise	sunset			4	8	early teal	1/2								1/2	2/2	2/2	or 2/2		5/10	1/2	10/20

Table 27. (Continued)

DUCK SEASON																																
Dates					Shooting Hours			Bag Limits															Mergansers		Coot							
Year	Open	Day	Close	Length	Opener	Start	End	Last Day 4 P.M.	Aqua Fowl	Daily	Poss.	Bonus	MAL	Mat F	BLK	PIN	WDK	CAN	RED	RUD	BUF	SCAUP	Daily Bag	Inc. no more hooded	Daily Bag							
1966	08-Oct	Sat	21-Nov	45	noon	1/2 hr before	sunset			4	8	2/4 rn,ls	2/4				2/4	2/2					5/10	1/2	10/20							
1967	07-Oct	Sat	15-Nov	40	noon	1/2 hr before	sunset			4	8		2/4				1/2	1/1					5/10	1/2	10/20							
1968	05-Oct	Sat	13-Oct	9	noon	1/2 hr before	sunset			3	6		1/2		2/2		2/4	1/1	or 1/1				5/10	1/2	10/20							
	26-Oct	Sat	12-Nov	18																												
1969	04-Oct	Sat	12-Nov	40	noon	sunrise	sunset			4	8	2/4 bt,ls	1/2				2/4	1/1	or 1/1				5/10	1/2	10/20							
1970	03-Oct	Sat	16-Nov	45	noon	1/2 hr before	sunset			4	8	2/4 bt,ls					2/4	1/1	or 1/1				5/10	1/2	15/30							
1971	02-Oct	Sat	20-Nov	50	noon	1/2 hr before	sunset			4	8	2/4 bt,ls					2/4	1/1	or 1/1				5/10	1/2	15/30							
1972	01-Oct	Sat	19-Nov	50	noon	1/2 hr before	sunset			4	8	2/4 bt,ls					2/4	closed	closed				5/10	1/2	15/30							
1973	01-Oct	Mon	10-Oct	10	noon	1/2 hr before	4 pm			4	8			1/2			2/4	closed	closed				5/10	1/2	15/30							
	20-Oct	Sat	18-Nov	30																												
1974	02-Oct	Wed	15-Nov	45	noon	1/2 hr before	4 pm			4	8		2/4		or 2/2		2/4	1/1	or 1/1				5/10	1/2	15/30							
1975	01-Oct	Wed	19-Nov	50	noon	1/2 hr before	4 pm			4	8		2/4		or 2/2		2/4	1/1	or 1/1				4/8	1/2	15/30							
1976	02-Oct	Sat	20-Nov	50	noon	1/2 hr before	4 pm			5	10		3/6	1/2	inc 2/4		2/4	1/1	or 1/1				5/10	1/2	15/30							
	23-Oct	Sat	11-Dec	50	NORTHERN 40 COUNTIES DELAYED DUE TO FIRE DANGER																											
1977	01-Oct	Sat	14-Nov	45	noon	1/2 hr before	sunset	29-Oct		5	10		2/4		or 2/4		2/4	1/1	or 1/1				5/10	1/2	15/30							
1978	01-Oct	Sun	19-Nov	50	9 am	1/2 hr before	sunset	20-Oct		5	10		2/4		or 2/4		2/4	1/1	or 1/1				5/10	1/2	15/30							
1979	29-Sep	Sat	17-Nov	50	noon	1/2 hr before	sunset	19-Oct		5	10		3/6	2/2	1/2		2/4	1/1	or 1/1				5/10	1/2	15/30							
1980	04-Oct	Sat	22-Nov	50	noon	1/2 hr before	sunset	17-Oct		5	10		3/6	2/2	1/2		2/4	1/2	1/2				5/10	1/2	15/30							
1981	03-Oct	Sat	21-Nov	50	noon	1/2 hr before	sunset	16-Oct		5	10		3/6	2/2	1/2		2/4	1/2	1/2				5/10	1/2	15/30							
1982	02-Oct	Sat	20-Nov	50	noon	1/2 hr before	sunset	22-Oct		5	10		3/6	2/2	1/2		2/4	1/2	1/2				5/10	1/2	15/30							
1983	01-Oct	Sat	19-Nov	50	noon	1/2 hr before	sunset	21-Oct		5	10		3/6	2/2	1/2		2/4	1/2	1/2				5/10	1/2	15/30							
1984	29-Sep	Sat	17-Nov	50	noon	1/2 hr before	sunset	19-Oct		5	10		3/6	2/2	1/2		2/4	1/2	1/2				5/10	1/2	15/30							
1985	05-Oct	Sat	13-Nov	40	noon	1/2 hr before	sunset	18-Oct		4	8		2/4	1/2	1/2	2/4	2/4	1/2	1/2				5/10	1/2	15/30							
1986	04-Oct	Sat	12-Nov	40	noon	1/2 hr before	sunset	17-Oct		4	8		2/4	1/2	1/2	2/4	2/4	closed	1/2				5/10	1/2	15/30							
1987	03-Oct	Sat	11-Nov	40	noon	1/2 hr before	sunset	16-Oct		4	8		2/4	1/2	1/2	2/4	2/4	closed	1/2				5/10	1/2	15/30							
1988	08-Oct	Sat	06-Nov	30	noon	sunrise	sunset	21-Oct		3	6		2/4	1/2	1/2	1/2	2/4	closed	1/2				5/10	1/2	15/30							
1989	07-Oct	Sat	05-Nov	30	noon	sunrise	sunset	20-Oct		3	6		2/4	1/2	1/2	1/2	2/4	closed	1/2				5/10	1/2	15/30							
1990	06-Oct	Sat	04-Nov	30	noon	sunrise	sunset	19-Oct		3	6		2/4	1/2	1/2	1/2	2/4	closed	1/2				5/10	1/2	15/30							
1991	05-Oct	Sat	13-Oct	30	noon	1/2 hr before	sunset	18-Oct		3	6		2/4	1/2	1/2	1/2	2/4	closed	1/2				5/10	1/2	15/30							
	17-Oct	Thur	03-Nov																													
	08-Nov	Fri	10-Nov																													
1992	03-Oct	Sat	11-Oct	30	noon	1/2 hr before	sunset	16-Oct		3	6		2/4	1/2	1/2	1/2	2/4	closed	1/2				5/10	1/2	15/30							
	15-Oct	Thur	01-Nov																													
	06-Nov	Fri	08-Nov																													
1993	02-Oct	Sat	10-Oct	30	noon	1/2 hr before	sunset	22-Oct		3	6		2/4	1/2	1/2	1/2	2/4	closed	1/2				5/10	1/2	15/30							
	14-Oct	Thur	31-Oct																													
	05-Nov	Fri	07-Nov																													
1994	01-Oct	Sat	09-Nov	40	noon	1/2 hr before	sunset	21-Oct		3	6		2/4	1/2	1/2	1/2	2/4	1/2	1/2				5/10	1/2	15/30							
1995	30-Sep	Sat	18-Nov	50	noon	1/2 hr before	sunset	20-Oct		5	10		4/8	1/2	1/2	1/2	2/4	1/2	1/2				5/10	1/2	15/30							
1996	28-Sep	Sat	16-Nov	50	noon	1/2 hr before	sunset	18-Oct		5	10		4/8	1/2	1/2	1/2	2/4	1/2	2/4				5/10	1/2	15/30							
1997	04-Oct	Sat	2-Dec	60	noon	1/2 hr before	sunset	11-Oct		6	12		4/8	2/4	1/2	3/6	2/4	1/2	2/4				5/10	1/2	15/30							
1998	03-Oct	Sat	01-Dec	60	noon	1/2 hr before	sunset	10-Oct		6	12		4/8	2/4	1/2	1/2	2/4	1/2	2/4				5/10	1/2	15/30							
1999	02-Oct	Sat	30-Nov	60	noon	1/2 hr before	sunset	9-Oct		6	12		4/8	2/4	1/2	1/2	2/4	1/2	2/4			3/6	5/10	1/2	15/30							
2000	30-Sep	Sat	28-Nov	60	noon	1/2 hr before	sunset	7-Oct		6	12		4/8	2/4	1/2	1/2	2/4	1/2	2/4			3/6	5/10	1/2	15/30							
2001	29-Sep	Sat	27-Nov	60	noon	1/2 hr before	sunset	6-Oct		6	12		4/8	2/4	1/2	1/2	2/4	1/2/c	2/4			3/6	5/10	1/2	15/30							
2002	28-Sep	Sat	26-Nov	60	noon	1/2 hr before	sunset	5-Oct		6	12		4/8	2/4	1/2	1/2/c	2/4	closed	2/4			3/6	5/10	1/2	15/30							
2003	27-Sep	Sat	25-Nov	60	noon	1/2 hr before	sunset	11-Oct		6	12		4/8	2/4	1/2	1/2/c	2/4	1/2/c	2/4			3/6	5/10	1/2	15/30							

Table 27. (Continued)

Goose Season																								
Statewide Regulations (excluding special zones)										Southeast Zone			West & Northwest Zone			WC or LOP Zone			Lac qui Parle					
Year	Overall			Snow/Blue Goose		Bag Limit / Poss.			Open	Close	Days	Cago Bag	Open	Close	Days	Cago Bag	Open	Close	Days	Cago Bag	Quota	Harvest Index	Date Quota Reached	Days
	Open	Close	Days	Open	Close	Aggr.	Canada	W/F																
1958	04-Oct	12-Dec	70			5/5	2	or 2																
1959	07-Oct	15-Dec	70			5/5	2	or 2																
1960	08-Oct	16-Dec	70			5/5	2	or 2																
1961	01-Oct	29-Nov	60			5/5	2	or 2																
1962	06-Oct	04-Dec	60			5/5	2	or 2																
1963	05-Oct	13-Dec	70			5/5	2	or 2																
1964	03-Oct	11-Dec	70			5/5	2	or 2																
1965	02-Oct	10-Dec	70			5/5	2	or 2																
1966	01-Oct	09-Dec	70			5/5	2	or 2																
1967	30-Sep	08-Dec	70			5/5	2	or 2																
1968	28-Sep	06-Dec	70			5/5	2	or 2																
1969	04-Oct	12-Dec	70			5/5	2	or 2																
1970	03-Oct	16-Nov	45			5/5	1	or 2																
1971	02-Oct	10-Oct	9			5/5	1	or 2	02-Oct	10-Dec	70	1												
1972	01-Oct	12-Oct	12	01-Oct	09-Dec	5/5	1/1	or 2/2	01-Oct	09-Dec	70	1												
1973	01-Oct	21-Oct	21	01-Oct	18-Nov	5/5	1/1	or 2/2	01-Oct	09-Dec	70	1												
1974	02-Oct	31-Oct	30	02-Oct	15-Nov	5/5	1/2	or 2/2	02-Oct	10-Dec	70	1												
1975	01-Oct	14-Nov	45			5/5	1/2	or 2/2	01-Oct	04-Dec	65	1								4000				
1976	02-Oct	15-Nov	45			5/5	1/2	or 2/2	02-Oct	10-Dec	70	1	Southern counties only							8000	7813	not reached	45	
		23-Oct	06-Dec										Northern 40 counties only											
1977	01-Oct	14-Nov	45			5/5	1/2	or 2/2	01-Oct	09-Dec	70	1								5000	5799	02-Nov	33	
1978	01-Oct	14-Nov	45			5/5	2/4	or 2/2	01-Oct	09-Dec	70	2/4								1/4	7000	6238	not reached	45
1979	29-Sep	17-Nov	50			5/5	2/4	or 2/2	29-Sep	07-Dec	70	2/4								1/4	7000	4988	not reached	50
1980	04-Oct	22-Nov	50			5/10	2/4	2/4	04-Oct	12-Dec	70	2/4								1/4	5500	5700	22-Nov	50
1981	03-Oct	21-Nov	50			5/10	2/4	2/4	03-Oct	11-Dec	70	2/4								1/4	5500	5560	09-Nov	37
1982	02-Oct	20-Nov	50			5/10	2/4	2/4	02-Oct	10-Dec	70	2/4								1/4	5500	5479	not reached	50
1983	01-Oct	19-Nov	50			5/10	1/2	2/4	01-Oct	09-Dec	70	2/4					01-Oct	19-Nov	50	1/2	4500	2392	not reached	50
1984	29-Sep	17-Nov	50			5/10	1/2	2/4	29-Sep	07-Dec	70	2/4					29-Sep	17-Nov	50	1/2	4500	4628	06-Nov	39
1985	28-Sep	16-Nov	50			5/10	1/2	2/4	28-Sep	06-Dec	70	2/4					28-Sep	16-Nov	50	1/2	4500	4592	07-Nov	41
1986	04-Oct	22-Nov	50			5/10	1/2	2/4	04-Oct	12-Dec	70	2/4					04-Oct	22-Nov	50	1/2	4500	4598	09-Nov	37
1987	03-Oct	11-Nov	40			5/10	1/2	2/4	03-Oct	11-Dec	70	2/4					03-Oct	01-Nov	30	1/2	4000	3910	not reached	30
1988	01-Oct	09-Nov	40			5/10	1/2	2/4	01-Oct	09-Dec	70	2/4					08-Oct	06-Nov	30	1/2	4000	4959	23-Oct	16
1989	30-Sep	08-Nov	40	30-Sep	16-Dec	7/14	1/2	2/4	30-Sep	08-Dec	70	2/4					30-Sep	29-Oct	30	1/2	4000	4303	19-Oct	20
1990	29-Sep	17-Nov	50	29-Sep	17-Dec	7/14	2/4	2/4	29-Sep	07-Dec	70	2/4					29-Sep	07-Nov	40	1/2	6000	4832	not reached	40
1991	28-Sep	16-Nov	50	28-Sep	16-Dec	7/14	2/4	2/4	28-Sep	06-Dec	70	2/4					28-Sep	06-Nov	40	1/2	6000	4799	not reached	40
1992	03-Oct	21-Nov	50	03-Oct	21-Dec	7/14	2/4	2/4	03-Oct	11-Dec	70	2/4					03-Oct	11-Nov	40	1/2	6000	3558	not reached	40
1993	02-Oct	20-Nov	50	02-Oct	20-Dec	7/14	2/4	2/4	02-Oct	10-Dec	70	2/4	02-Oct	10-Nov	40	1/2	02-Oct	10-Oct	9	1/2	1750			
																	16-Oct	05-Nov	21		4000	3832	not reached	30
1994	01-Oct	19-Nov	50	01-Oct	19-Dec	7/14	2/4	2/4	01-Oct	09-Dec	70	2/4	01-Oct	09-Nov	40	1/2	01-Oct	09-Oct	9	1/2	1750			
																	15-Oct	04-Nov	21		4000	2876	not reached	30
1995	30-Sep	18-Nov	50	30-Sep	18-Dec	7/14	2/4	2/4	30-Sep	08-Dec	70	2/4	30-Sep	08-Nov	40	1/2	30-Sep	08-Oct	9	1/2	7000			
																	14-Oct	03-Nov	21		16000	12513	not reached	30

Table 27. (Continued)

Goose Season																									
White Geese					Canada Geese																				
Year	Open	Close	Days	Bag/ Poss	Remainder of State				Northeast Zone				West Zone & Northwest Zones				WC and LQP Zone				Lac qui Parle Harvest Index				
					Open	Close	Days	Bag	Open	Close	Days	Bag	Zone	Open	Close	Days	Bag	Open	Close	Days	Bag	Index	Harvest	Date close	Days
1996	28-Sep	16-Dec	80	7/14	28-Sep	06-Dec	70	2/4	est. in 1998				Both	28-Sep	06-Nov	40	1/2	5-Oct	13-Oct	9	1/2	7000 for the first 9 days			
																	17-Oct	06-Nov	21		16000	9768	not reached	30	
1997	04-Oct	22-Dec	80	10/20	04-Oct	12-Dec	70	2/4					Both	04-Oct	12-Nov	40	1/2	11-Oct	9-Nov	30	1/2	16000	7716	not reached	30
1998	03-Oct	21-Dec	80	10/20	03-Oct	01-Nov	30	1/2	03-Oct	11-Dec	70	2/4	NW	03-Oct	22-Oct	20	1/2	15-Oct	3-Nov	20	1/2	10000	7188	not reached	20
					02-Nov	11-Dec	40	2/4					W	03-Oct	27-Oct	25	1/2								
1999	02-Oct	20-Dec	80	10/20	02-Oct	10-Dec	70	2/4	incorporated into remainder of state				Both	02-Oct	10-Nov	40	1/2	9-Oct	7-Nov	30	1/2	16000	10336	not reached	30
2000	30-Sep	24-Dec	86	20/40	30-Sep	08-Dec	70	2/4					Both	30-Sep	08-Nov	40	1/2	7-Oct	5-Nov	30	1/2	16000	2684	not reached	30
2001	29-Sep	23-Dec	86	20/40	29-Sep	07-Dec	70	2/4					Both	29-Sep	07-Nov	40	1/2	6-Oct	14-Nov	40	1/2	12000	7469	not reached	40
2002	28-Sep	22-Dec	86	20/40	28-Sep	06-Dec	70	2/4					Both	28-Sep	06-Nov	40	1/2	5-Oct	13-Nov	40	1/2	12000			

Table 27. (Continued)

Year	Other Regulations
pre-1915	No possession past 5 days after close of season.
1915	Ducks separated from other aquatic fowl limits, only use shotgun discharged from shoulder, law prohibited hunting aquatic fowl on open water. No possession past 5 days after season. Only geese could be taken by rifle. Poss = 50.
1916	No change from 1915.
1917	The 1915 law was amended so that wounded aquatic fowl could be pursued and killed on open water.
1918	Migratory Bird Treaty Act became law July 3, giving primary responsibility for the management of waterfowl to the fed. government. In Nov. the fed. government issued first annual pamphlet on waterfowl regulations for the country.
1919	Dates set by fed. reg. Gun limit to ten gauge to take waterfowl. Aid of a dog and decoys allowed. Limit inc. ducks, coots, rails, gallinules, snipe, yellowlegs.
1920	No change.
1921	No change.
1922	No change.
1923	Season limit of 135 ducks.
1924	No change.
1925	Not over 12 game birds (inc. waterfowl) were allowed in one day. Possession limit: 36 aquatic fowl. Season limit: 120 ducks. State law limited to 6 the number of decoys which could be used at any one blind.
1926	No change.
1927	No change.
1928	No change.
1929	Congress passed the Migratory Bird Conservation Act.
1930	Season limit for ducks 120.
1931	No change.
1932	Daily limit not >12 in aggregate of MAL, PIN, WIG, MERG, COOT, and >10 of in aggregate of SCP, GWT, BWT, Cin. Teal, CAN, RED, RNK, SHO, and GAD. Season limit of 120 ducks.
1933	Daily limit 15 mig. game birds of which not more than 12 can be a mixed bag of ducks and coots, and not > 8 in aggregate of SCP, GWT, BWT, Cin. Teal, CAN, RED, RNK, SHO, OR GAD. season limit 120 ducks.
1934	No hunting on Mon. and Thur. of each week. Fed. duck stamp required. Not >5 CAN, RHD, SCP, RED, BWT, Cin. teal, SHO, GAD.
1935	Daily and possession limit of 10 is for all migratory game birds and includes 4 geese. Baiting and the use of live decoys were outlawed in 1935. Not over 15 game birds of all kinds may be taken by in any one day.
1936	Daily and possession limit not over 10 migratory birds in aggregate of all kinds, of which not more than 4 can be geese. Not over 15 birds of all kinds may be taken in any one day.
1937	Daily limit of mig. birds 15 in aggregate of all kinds of which not more than 10 shall be ducks; 4 geese; 12 Coots; 12 Jacksnipe; 12 Rails and Gallinules.
1938	Season limit of 120 ducks. Daily limit-15 mig. game birds.
1939	Daily limit-15 mig. game birds.
1940	Daily limit-15 mig. game birds.
1941	Same as 1940 except no retrictions on Ruddy Duck and Canvasback.
1942	Only 3 of any one or 3 combined of RED and BUF. Four Blue Geese allowed in addition to the 2 geese of regular daily bag. Daily and possession limit of Blue Geese only is 6.
1943	Only 3 of any one or 3 combined of RED and BUF. Four Blue Geese allowed in addition to the 2 geese of regular daily bag. Daily and possession limit of Blue Geese only is 6.
1944	Daily duck limit 15 provided 5 are MAL, PIN, WIG (poss. limit 30). Daily snow/blue goose limit of 4 is in addition to 2 other goose limit.
1945	Daily snow/blue goose limit of 4 in addition to 2 other goose limit. 1st year Merg limit different than duck.
1946	Two snow/blue geese in addition to 2 of some other kind.
1947	White-Fronted goose bags combined with Canada Goose bag.
1948	Management by Flyways was commenced in 1948.
1949	No change.
1950	No change.
1951	No change.
1952	No change.
1953	No change.
1954	Mergs included in duck bag.
1955	Minnesota delayed opening date by 1 week to protect local breeding ducks.
1956	Minnesota delayed opening date, Commissioner negotiated 1 extra duck in the bag for a 1 week delay in opening and 15 days off the season length
1957	Red-breasted and Common Merganser, 5 daily and, 10 possession which must be included in limit with other ducks. Goose limit may include 2 Canada, 2 W-F, or 1 of each.
1958	Mergs no longer included in duck bag.
1959	No change.
1960	No change.

Table 27. (Continued)

Year	Other Regulations
1961	Shooting hours noon for both duck (14 Oct) and goose (1 Oct) openers.
1962	Shooting hours begin at noon on both duck (13 Oct) and goose (6 Oct) openers. Bonus scaup from Oct. 20 to Nov 6, inclusive.
1963	No change.
1964	Shooting hours for geese sunrise to noon in Olmstead, Nobles, Cottonwood, Jackson and Murray counties. No goose hunting permitted in these areas Oct. 3. 2 Redheads or Canvasbacks or 1 of each.
1965	Teal: 11-13 SEP. Geese hours: sunrise to noon (noon to sunset on opening) in above mentioned counties and portions of Big Stone, Murray, and Nobles. 1st time Home included in mer limit. Coot season 9-Oct-17 Nov.
1966	Geese hours 1/2 hour before to noon (closed Oct. 8) in counties noted in 1965 comment. Bonus Rndu & Scaup from 1-21 Nov.
1967	Shooting hours 1/2 hour before sunrise to noon for geese in Cottonwood, Jackson, Traverse and portions of Murray and Nobles counties. Coots combined with Moorhens (gallinules).
1968	Shooting hours 1/2 hour before sunrise to noon for geese in Cottonwood, Jackson, and Traverse counties and portions of Murray and Nobles counties. Coot season 26-Oct to 12-Nov.
1969	Shooting hours 1/2 hour before sunrise to noon for geese in Jackson, Traverse, and portions of Cottonwood, Murray and Nobles counties. BONUS DUCKS: 2 BWT (4-12 Oct), 2 SCP (1-12 Nov).
1970	Shooting hours 1/2 hour before sunrise to noon for geese in Jackson and Traverse counties. BONUS DUCKS: 2 BWT (3-11 Oct), 2 SCP (31 Oct-16 Nov).
1971	Shooting hours 1/2 hour before sunrise to noon for geese in Jackson and Traverse counties. BONUS DUCKS: 2 BWT (2-10 Oct), 2 SCP (1-20 Nov).
1972	BONUS DUCKS: 2 BWT (1-19 Oct), 2 SCP (1-19 Nov).
1973	First hen MAL restriction, Season for all geese in SE Zone extends until 9 Dec.
1974	Closed areas for CAN and RED in effect.
1975	Closed areas for CAN and RED in effect.
1976	Closed areas for CAN and RED in effect.
	NORTHERN SEASON CHANGED DUE TO FIRE DANGER: in northern 2/3 of state (40 cos.) began 23 Oct, duck end 11 Dec, goose end 6 Dec., LQP quota inc. to 8,000.
1977	Closed areas for CAN and RED in effect. Steel shot required on WPA, NWR, & WMA.
1978	Closed areas for CAN and RED in effect.
1979	Closed areas for CAN and RED in effect.
1980	Closed areas for CAN and RED in effect. White-fronted goose bag separated from Canada goose bag.
1981	Closed areas for CAN and RED in effect.
1982	Closed areas for CAN and RED in effect.
1983	Closed SE area for CANV in effect.
1984	Closed SE area for CANV in effect.
1985	Closed SE area for CANV in effect. Noon shooting hours on both goose and duck opener. Pintail restrictions initiated.
1986	CANV season closed statewide
1987	STEEL SHOT REQUIRED STATEWIDE. Special Canada goose hunts: 1-10 Sept in TCGZ (no hunting within 100 yards of surface water); 18-27 Dec in TCGZ and OCGZ.
1988	WCGZ established. Special Canada goose hunts: 1-10 Sep in TCGZ, 16-25 Dec in TCGZ and OCGZ.
1989	Special Canada Goose Hunts: 1-10 Sep in TCGZ, FFGZ, and SWBGZ; 15-24 Dec in TCGZ and OCGZ.
1990	Special Canada Goose Hunts: 1-10 Sep in TCGZ, FFGZ, and SWBGZ; 15-24 Dec in TCGZ and OCGZ; West Central (inc. LQP) Goose Permit required.
1991	Special Canada Goose Hunts: 1-10 Sep in TCGZ, FFGZ, and SWBGZ; 14-23 Dec in TCGZ and OCGZ.
1992	Special Canada Goose Hunts: 1-10 Sep in TCGZ, FFGZ, and SWBGZ; 15-24 Dec in TCGZ and OCGZ.
1993	Waterfowl must be transported with wing and head; orange requirement dropped for waterfowl hunters; NW & W Goose Zones added; SCGH: 4-13 Sep in TC, FF, & SW; 15-24 Dec in TC & OC, 11-20 Dec in FFGZ.
1994	Canvasback season opened except for Heron Lk complex & Lk Christina. SCGH: 3-12 Sep in TC, FF, & SW ; 15-24 Dec in TC & OC, 10-19 Dec in FFGZ.
1995	Lake Christina open to Canv hunting; Bismuth-Tin shot approved; WC goose permit dropped. SCGH: 2-11 Sep in TC, FF, & SW; 15-24 Dec in TC & OC, 9-18 Dec in FFGZ. LQP harvest index adjusted.
1996	Youth waterfowl hunt 21 Sep. (youth 15 & under accompanied by nonhunting adult, ducks, merg., coots, & moorhens), Special Canada goose hunt 7-15 Sep. statewide except N.W., bag limit 5 Metro, 4 SW, & 2 in remainder Late CG Dec 14-23 in TCGZ, FFGZ, OCGZ, 2 daily bag. White goose (Snow/Blue & Ross) limits separated from other geese. WF & brant seasons same as CG, 2 each/day, W zone boundary changed. SE goose zone dropped.
1997	Youth waterfowl hunting day 20 Sep. Special Canada goose hunt 6-15 Sep. statewide except NW, bag 5 in Metro & SW, 2 in remainder; Late CG Dec 13-22 in TCGZ, FF/AGZ, OCGZ, bag 2. 4 P.M. shooting hour period reduced to first 8 days by legislature.; Heron Lake complex open to canvasback hunting; Geese may be transported with wing only instead of head and wing.
1998	Youth waterfowl hunting day 19 Sep. (1 goose added to bag); Special Canada goose hunt 5-15 Sep. statewide except NW, Bag limit 5 except 2 E of I-35 & S. of TCGZ, Over water hunting in W goose zone (inc. WC & LQP) beginning 2nd Saturday of Sept. season; Late CG Dec 12-21 in TCGZ, FF/AGZ, OCGZ, bag limit 2. WF & brant seasons lengthed to 80 days, brant limit 1. Scaup restrictions initiated.
1999	Youth waterfowl hunt 18 Sep inc. 1 CGoose except 5 CG in W Zone (inc LQP and WCZ); Sept. Canada goose hunt extended, 4-22 Sep. statewide except NW; first NW season = Sept. 4-15, bag limit 2 CG; Late CG season expanded statewide except LQP & WC, daily bag 5 except new SE Zone limit 2. NE Goose Zone dropped. WF & brant season lengthed to 80 days, brant limit 1. Scaup restrictions initiated.
2000	Youth waterfowl hunting day 16 Sep inc. 1 CGoose except 5 CG in W Zone (inc LQP and WCZ); Sept. Canada goose hunt 2-22 Sep. statewide except NW Sept. 2-15, bag limit 5 CG except 2 in NW & SE Late CG season statewide (Dec. 9-18, SE=Dec 15-24) except LQP and WC, daily limit 5 except SE Zone limit 2. WF & brant season lengthed to 86 days, brant limit 1.
2001	Youth waterfowl hunting day 15 Sep inc. 1 CGoose except 5 CG in W Zone (inc LQP and WCZ); Sept. Canada goose hunt 1-22 Sep. statewide except NW Sept. 1-15, bag limit 5 CG except 2 in NW & SE 20-day canvasback season (Oct. 13-Nov. 1); Longer season in LQP/WC goose zones, lower quota in LQP; Late CG season statewide (Dec. 8-17, SE=Dec 14-23) except LQP/WC, limit 5 except SE limit 2.
2002	Youth waterfowl hunting day 14 Sep inc. 1 CGoose except 5 CG in W Zone (inc LQP and WCZ); Sept. Canada goose hunt 1-22 Sep. statewide except NW Sept. 1-15, bag limit 5 CG except 2 in NW & SE Closed canvasback season; 30-day pintail season (Sept. 28-Oct. 27); Late CG season statewide (Dec. 7-16, SE=Dec 13-22) except LQP/WC, daily limit 5 except SE limit 2. Motorized decoy use prohibited to take waterfowl, except geese, on public waters on Youth hunting day and from the opening day through Oct. 5.
2003	Youth waterfowl hunting day 20 Sep inc. 5 CGoose except 1 CG in NW, TC Metro, and SE zones, Carlos Avery WMA, and Swan Lake area; Sept. Canada goose hunt 6-22 Sep. statewide except NW Sept. 6-15, bag limit 5 CG except 2 in NW & SE; 30-day canvasback season (Oct. 11- Nvo 9); 30-day pintail season (Sept. 27-Oct. 26); Late CG season statewide (Dec. 6-15, SE=Dec 12-21) except WC, daily limit 5 except SE limit 2. Motorized decoy use prohibited to take waterfowl, except geese, on public waters on Youth hunting day and from the opening day through Oct. 11., LQP Goose Zone and Harvest Index dropped.

HUNTING HARVEST STATISTICS
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MINNESOTA HUNTING

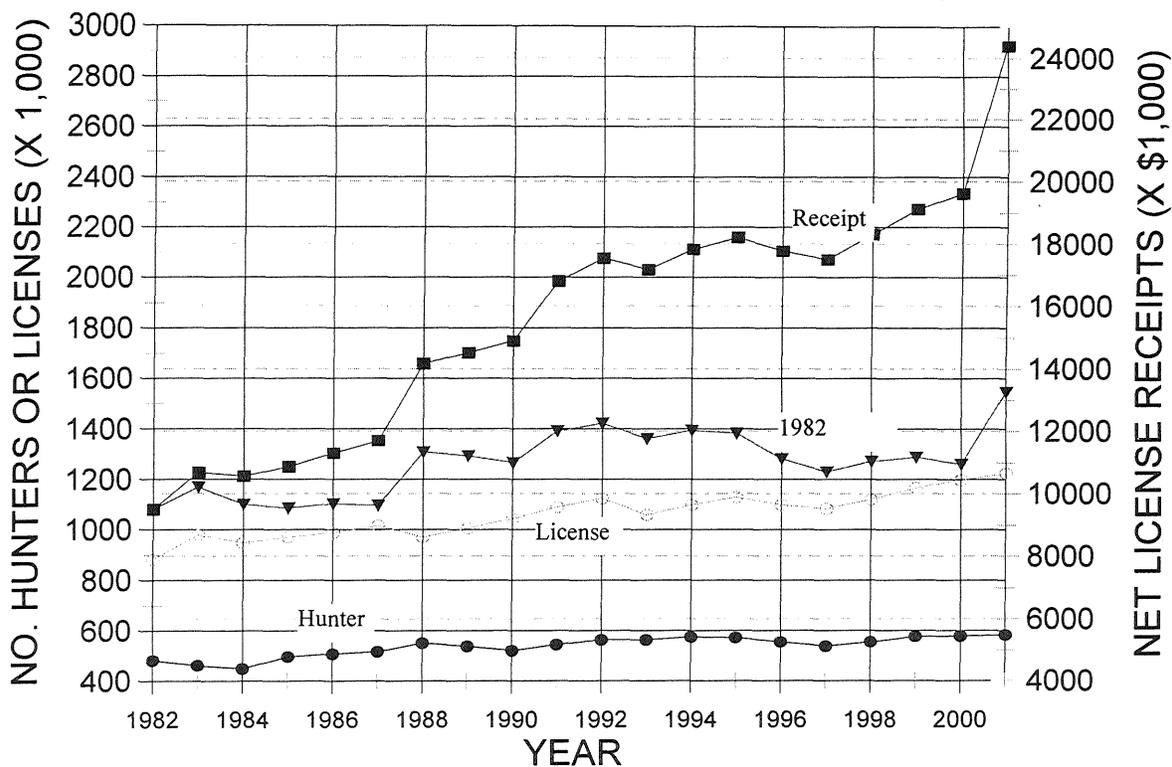


Figure 49. Minnesota hunting trends, 1982-2001.

YEAR = license year (March -February)

● HUNTERS are paid license holders. A hunter is one individual regardless of the number of licenses purchased. Source: USFWS Division of Federal Aid.

○ LICENSES are the totals of hunting licenses, stamps and permits sold through the License Bureau, including duplicates but excluding trapping licenses and special goose hunt permits. Source: License Bureau.

▲ RECEIPTS to the Game and Fish Fund are for all LICENSES except that bear, moose and turkey lottery licenses are also excluded because there is no good financial record for them over the entire period starting in 1982. Portion of receipts considered hunting licenses is 52.6% for individual sportsmen and 41.1% for combination sportsmen. Source: License Bureau.

▼ 1982 DOLLARS are RECEIPTS expressed in constant 1982 dollars, which were calculated with Gross Domestic Product chain-weighted price indexes of state and local government purchases. Sources: *Survey of Current Business*, January/February 1996, August 1996, July 1998, February 2000, 2001, 2002, and 2003 U.S. Dept. of Commerce.

Table 28. Small game hunter response to mail surveys, 1979 - 80 through 2002 - 03.

Year	Number mailed	Number not delivered	Delivered questionnaires completed and returned	
			Number	Percent
1979 - 80	5,696	443	4,504	85.7
1980 - 81	6,434	385	4,963	82.0
1981 - 82	6,656	399	5,419	86.6
1982 - 83	5,963	266	4,792	84.1
1983 - 84	4,551	269	3,325	77.7
1984 - 85	4,096	127	3,280	82.6
1985 - 86	3,370	157	2,574	80.1
1986 - 87	4,668	208	3,623	81.2
1987 - 88	5,513	248	4,191	79.6
1988 - 89	15,388	857	11,431	78.7
1989 - 90 ^a	10,893	735	7,790	76.7
1990 - 91 ^a	5,000	394	3,467	75.3
1991 - 92 ^a	5,050	387	3,541	75.9
1992 - 93 ^a	5,000	288	3,625	76.9
1993 - 94 ^a	5,011	282	3,320	70.2
1994 - 95 ^a	5,000	387	3,353	72.7
1995 - 96 ^a	5,000	321	3,293	70.4
1996 - 97 ^a	5,000	170	3,334	69.0
1997 - 98 ^a	5,000	198	3,234	67.3
1998 - 99 ^a	5,000	200	3,153	65.7
1999 - 00 ^a	5,001	180	3,349	69.5
2000 - 01 ^a	5,000	184	3,001	62.3
2001 - 02 ^a	6,000	225	3,667	64.0
2002 - 03 ^a	6,000	363	3,862	68.5

^a Includes resident and non-resident licenses, and excludes duplicate licenses.

Table 29. Use of small game hunter licenses, 1992-93 through 2002-2003.

		Returns from mail survey	Projections from license sales
1992-93	Hunted	3,008 (83.9%)	249,973
	Did not hunt	<u>576 (16.1%)</u>	<u>47,968</u>
		3,584 (100.0%)	297,941
1993-94	Hunted	2,787 (84.0%)	232,365
	Did not hunt	<u>533 (16.0%)</u>	<u>44,260</u>
		3,320 (100.0%)	276,625
1994-95	Hunted	2,826 (84.6%)	244,654
	Did not hunt	<u>516 (15.4%)</u>	<u>44,535</u>
		3,342 (100.0%)	289,189
1995-96	Hunted	2,714 (84.6%)	252,775
	Did not hunt	<u>494 (15.4%)</u>	<u>46,014</u>
		3,208 (100.0%)	298,789
1996-97	Hunted	2,631 (79.6%)	237,476
	Did not hunt	<u>674 (20.4%)</u>	<u>60,861</u>
		3,305(100.0%)	298,337
1997-98	Hunted	2,604 (80.7%)	246,285
	Did not hunt	<u>622 (19.3%)</u>	<u>58,901</u>
		3,226 (100.0%)	305,186
1998-99	Hunted	2,612 (82.8%)	265,215
	Did not hunt	<u>541 (17.2%)</u>	<u>55,093</u>
		3,153 (100.0%)	320,308
1999-00	Hunted	2,689 (80.7%)	264,237
	Did not hunt	<u>644 (19.3%)</u>	<u>63,194</u>
		3,333 (100.0%)	327,431
2000-01	Hunted	2,254 (78.7%)	252,518
	Did not hunt	<u>610 (21.3%)</u>	<u>68,344</u>
		2,864 (100.0%)	320,862
2001-02	Hunted	2,849 (77.7%)	231,589
	Did not hunt	<u>610 (21.3%)</u>	<u>66,466</u>
		3,665 (100.0%)	298,055
2002-03	Hunted	2,962 (76.7%)	221,455
	Did not hunt	<u>900 (23.3%)</u>	<u>67,274</u>
		3,862 (100.0%)	288,729

Includes resident and non-resident information. Excludes duplicates.

Table 30. Estimated number of hunters (thousands) for various species, 1990-91 through 2002-03.

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Ducks	88	100	107	109	118	119	114	122	117	122	109	109	112
Canada goose	56	56	61	62	70	73	75	79	77	80	77	76	79
Other geese	6	6	6	9	7	10	6	5	6	5	7	7	6
American coot	5	5	5	6	7	9	6	7	5	6	4	4	4
Common snipe	5	4	3	2	2	2	2	2	2	2	2	1	2
Rails / gallinules	<1	<1	<1	1	1	1	<1	<1	<1	<1	<1	<1	1
Crow*	13	12	11	10	12	15	13	11	11	14	14	11	13
American woodcock	30	27	21	17	21	21	18	17	19	19	16	11	12
Ring-necked pheasant	105	122	105	88	92	96	88	80	88	93	100	85	91
Ruffed grouse	163	146	124	102	107	116	118	127	142	139	121	101	91
Spruce grouse	19	16	13	11	12	14	11	11	11	11	9	9	7
Sharp-tailed grouse	14	14	10	8	7	8	7	8	8	8	10	8	6
Gray partridge	31	27	17	15	14	12	11	8	10	10	8	7	7
Gray squirrel	41	36	32	32	35	35	33	27	30	31	27	26	25
Fox squirrel	29	23	22	23	24	23	20	16	18	20	17	15	15
Eastern cottontail	32	31	24	21	21	23	19	14	19	18	20	17	16
White-tailed jackrabbit	7	6	5	4	4	5	4	3	3	3	2	3	2
Snowshoe hare	15	12	8	5	6	5	4	4	7	7	5	6	6
Raccoon (Sept 02 - Feb 03)	10	10	9	9	10	10	10	9	9	6	6	6	6
Raccoon† (March 02-Aug 02)					3	5	4	3	4	3	5	4	4
Red fox (Sept 02-Feb 03)	16	22	19	16	15	15	11	9	9	8	10	6	7
Red fox† (March 02-Aug 02)					3	4	3	2	3	2	2	3	2
Gray fox	3	4	3	3	2	3	n.a.	2	2	2	1	1	1
Coyote	9	13	14	14	11	15	13	10	11	11	16	11	12
Badger	1	<1	1	1	1	<1	1	1	<1	<1	1	<1	1

* Crow season added in 1989.

† Raccoon and red fox season changed to year round beginning May 1994.

Table 31. Estimated take per hunter, for respondents reporting that they hunted a particular species, 1989-90 through 2002-03.

	Estimated take per hunter													
	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Ducks	6.5	7.0	8.0	8.1	7.6	8.1	9.7	9.6	9.9	9.5	8.4	8.9	9.1	9.2
Canada geese	2.1	2.3	2.6	2.5	2.5	2.4	2.5	3.2	2.9	2.8	3.5	3.9	4.0	3.3
Other geese	1.2	1.2	1.0	0.9	1.1	0.8	0.9	1.4	2.3	1.0	1.2	2.2	1.2	1.9
American coot	2.5	3.6	2.7	4.7	2.7	3.2	3.1	3.8	4.1	4.7	4.0	2.7	4.5	4.6
Common snipe	2.5	3.0	3.7	2.9	1.9	1.3	1.6	2.8	2.6	2.9	1.6	1.3	1.3	1.5
Rails/gallinules	4.2	1.0	7.6	1.7	1.5	1.3	2.3	1.0	0.7	0.5	0.2	3.7	0.6	2.6
Crow *	5.9	5.5	7.6	6.2	5.0	9.4	8.5	7.3	6.6	9.3	4.4	6.9	7.7	5.6
American woodcock	3.9	3.9	3.5	4.7	4.0	3.5	3.9	3.2	3.4	3.3	2.8	2.8	2.3	2.4
Ring-necked pheasant	3.6	4.6	4.6	3.9	3.8	3.5	4.2	3.9	3.1	3.5	3.7	3.7	3.2	3.9
Ruffed grouse	7.5	7.1	6.6	4.4	2.8	3.5	3.9	4.5	5.2	6.7	4.9	5.1	3.3	2.8
Spruce grouse	2.7	2.4	2.0	1.7	1.2	1.9	1.8	1.4	2.3	2.4	1.8	2.5	1.1	1.6
Sharp-tailed grouse	2.5	2.4	2.4	2.0	1.4	1.2	1.3	1.2	1.7	2.6	1.6	1.6	1.2	1.3
Gray partridge	3.7	3.7	3.8	2.9	2.4	1.8	2.2	2.2	1.9	2.5	1.9	2.1	1.5	1.7
Gray squirrel	5.5	5.8	4.9	4.6	5.5	5.4	4.9	4.9	4.9	5.0	4.3	5.3	5.6	5.2
Fox squirrel	5.0	5.1	4.6	4.2	4.5	4.2	4.6	3.8	4.4	3.3	3.5	3.9	4.1	4.5
Eastern cottontail	3.8	4.3	4.1	3.1	3.6	3.6	4.3	3.4	4.5	4.6	3.2	3.9	3.6	3.3
White-tailed jackrabbit	2.2	1.3	1.7	2.1	2.4	1.5	1.5	2.6	1.6	2.5	1.9	2.8	2.6	1.6
Snowshoe hare	4.8	4.6	5.9	3.2	3.2	3.2	2.0	2.3	2.0	3.5	3.1	5.2	3.3	1.9
Raccoon (Sept 02 - Feb 03)	7.6	9.6	7.5	8.6	8.9	15.9	14.7	21.3	13.8	16.6	10.9	7.6	9.4	10.0
Raccoon [†] (March 02-Aug 02)						8.0	11.3	24.4	5.1	5.8	6.4	7.8	4.4	5.4
Red fox (Sept 02-Feb 03)	2.1	3.4	3.6	3.3	3.6	2.8	3.1	3.0	1.4	1.3	1.2	1.9	1.2	1.5
Red fox [†] (March 02-Aug 02)						1.4	1.5	1.3	0.8	1.2	0.6	0.9	1.5	1.7
Gray fox	1.2	1.4	1.0	1.3	0.8	0.6	1.0	n.a.	1.3	0.9	0.9	0.7	0.4	0.4
Coyote	1.7	1.6	2.1	1.5	1.3	1.1	1.8	2.3	1.6	1.3	1.3	1.8	1.1	1.2
Badger	1.3	1.4	2.2	0.9	0.7	1.4	1.4	2.1	0.9	4.3	1.1	0.8	0.6	1.7

* Crow season added in 1989.

† Raccoon and red fox season changed to year round beginning May 1994.

Table 32. Mean Harvest for successful hunters and hunter success rates (%), 1992 - 93 through 2002 - 03.

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Ducks	9.1 (89.0)	8.7 (87.3)	9.2 (88.5)	11.0 (88.2)	10.7 (90.2)	11.1 (88.4)	10.8 (87.8)	9.7 (86.2)	10.2 (84.9)	10.6 (85.6)	10.6 (86.7)
Canada geese	3.4 (72.7)	3.4 (74.3)	3.3 (71.9)	3.4 (72.2)	4.3 (75.1)	4.1 (71.2)	4.0 (70.9)	4.7 (74.7)	5.3 (74.2)	5.3 (76.3)	4.6 (72.0)
Other geese	2.5 (33.3)	2.1 (50.0)	2.3 (32.1)	2.4 (39.0)	2.6 (52.2)	4.8 (47.2)	2.3 (44.6)	2.8 (38.2)	4.0 (54.1)	2.8 (43.8)	4.4 (42.5)
American coot	6.0 (77.6)	3.8 (71.6)	4.1 (77.5)	4.4 (69.4)	5.1 (75.0)	4.6 (89.2)	6.0 (78.8)	5.5 (73.0)	4.2 (64.7)	7.5 (60.4)	6.4 (71.2)
Common snipe	3.5 (83.3)	2.9 (65.2)	2.2 (61.9)	2.5 (65.2)	3.2 (89.5)	3.1 (83.3)	3.5 (83.3)	2.3 (66.7)	1.5 (85.0)	2.4 (52.9)	2.6 (60.0)
Rails / gallinules	2.5 (66.7)	2.4 (62.5)	2.2 (60.0)	4.7 (50.0)	2.0 (50.0)	2.0 (33.3)	1.0 (50.0)	1.0 (20.0)	3.7 (100.0)	1.5 (40.0)	3.8 (66.7)
Crow	7.0 (88.8)	5.7 (87.1)	10.5 (89.4)	9.0 (93.9)	7.9 (91.8)	7.1 (93.2)	10.6 (87.6)	5.2 (85.5)	8.2 (84.0)	8.6 (89.4)	6.3 (89.0)
American woodcock	5.8 (80.5)	5.4 (73.9)	4.7 (74.5)	5.0 (76.8)	4.3 (73.5)	4.6 (73.5)	3.7 (87.3)	3.8 (74.6)	3.6 (80.3)	3.4 (68.3)	3.6 (65.6)
Ring-necked pheasant	5.4 (73.1)	5.3 (70.6)	5.0 (68.9)	5.7 (73.6)	5.4 (71.2)	4.5 (68.6)	5.0 (70.9)	5.2 (69.8)	5.2 (71.9)	4.7 (66.4)	5.5 (71.7)
Ruffed grouse	6.0 (72.8)	4.3 (64.7)	4.9 (70.9)	5.3 (74.0)	6.0 (75.4)	6.6 (77.9)	8.0 (82.9)	6.3 (78.9)	6.4 (80.7)	4.8 (68.5)	4.3 (63.8)
Spruce grouse	2.8 (59.1)	2.4 (48.4)	3.3 (56.6)	3.2 (57.0)	2.4 (59.1)	3.4 (67.8)	3.4 (68.8)	2.9 (62.7)	4.1 (60.7)	2.3 (47.2)	3.4 (48.0)
Sharp-tailed grouse	3.3 (60.2)	3.0 (46.7)	3.5 (34.5)	2.7 (47.1)	3.1 (39.7)	3.5 (48.2)	4.4 (60.2)	3.4 (48.2)	3.1 (52.9)	2.4 (49.5)	3.5 (38.8)
Gray partridge	4.0 (71.5)	4.0 (59.7)	3.2 (54.8)	3.4 (62.9)	3.3 (66.7)	3.3 (57.5)	3.8 (64.2)	3.1 (62.4)	3.7 (58.6)	2.5 (58.3)	2.8 (59.1)
Gray squirrel	5.5 (83.8)	6.4 (86.9)	6.2 (87.1)	5.6 (87.9)	5.8 (84.3)	5.8 (84.0)	5.8 (86.9)	5.1 (84.7)	6.7 (84.9)	6.6 (84.4)	6.1 (86.2)
Fox squirrel	4.9 (85.3)	5.1 (88.5)	5.1 (82.6)	5.5 (83.8)	4.7 (80.1)	5.3 (82.9)	3.9 (82.7)	4.5 (79.0)	4.8 (80.5)	5.3 (77.7)	5.9 (76.4)
Eastern cottontail	3.9 (78.0)	4.5 (79.9)	4.5 (79.1)	5.2 (83.5)	4.3 (79.9)	5.7 (80.0)	5.6 (83.1)	4.0 (80.0)	4.8 (82.5)	4.7 (77.7)	4.7 (70.5)
White-tailed jackrabbit	3.0 (71.0)	3.9 (62.8)	2.4 (61.5)	2.5 (59.3)	4.0 (65.1)	2.5 (65.5)	3.2 (78.6)	2.6 (72.7)	4.1 (68.2)	5.2 (50.0)	2.7 (60.6)
Snowshoe hare	4.8 (65.6)	4.4 (73.8)	5.4 (59.7)	3.4 (59.3)	3.7 (60.4)	2.8 (70.5)	4.7 (75.4)	3.9 (79.4)	6.3 (82.6)	4.4 (75.0)	2.9 (67.1)
Raccoon (Sept 02-Feb 03)	9.3 (91.7)	9.3 (95.3)	16.3 (97.5)	16.0 (92.0)	22.5 (94.4)	14.8 (92.6)	18.1 (91.8)	11.4 (95.1)	8.0 (94.8)	10.0 (93.6)	11.6 (86.3)
Raccoon [‡] (March 02-Aug 02)			9.1 (88.6)	12.2 (92.5)	29.6 (82.2)	6.3 (80.0)	6.2 (92.5)	6.6 (96.2)	8.2 (95.1)	4.9 (90.2)	5.9 (91.7)
Red fox (Sept 02-Feb 03)	5.6 (58.9)	5.4 (67.5)	4.4 (64.7)	4.8 (64.5)	5.3 (57.1)	2.4 (59.8)	2.6 (52.7)	2.4 (51.9)	3.4 (56.7)	2.7 (44.9)	3.1 (49.0)
Red fox [‡] (March 02-Aug 02)			3.0 (46.9)	2.3 (65.1)	2.4 (51.6)	1.6 (52.2)	1.8 (65.4)	1.3 (47.4)	1.9 (47.1)	2.8 (54.5)	3.6 (46.7)
Gray fox	3.1 (41.5)	3.1 (26.7)	2.5 (23.1)	1.8 (58.1)	n.a.	2.0 (62.5)	1.6 (53.3)	2.3 (40.0)	2.0 (33.3)	1.4 (26.3)	1.8 (23.5)
Coyote	3.1 (50.0)	2.3 (57.1)	2.4 (48.1)	2.9 (61.1)	4.1 (55.9)	2.8 (57.0)	2.9 (45.0)	2.5 (49.1)	3.4 (53.9)	2.4 (47.3)	3.2 (36.6)
Badger	1.2 (71.4)	1.0 (71.4)	1.7 (85.7)	1.8 (80.0)	2.1 (100.0)	1.0 (85.7)	6.5 (66.7)	1.3 (87.5)	1.0 (83.3)	1.0 (60.0)	2.8 (60.0)

[‡] Raccoon and red fox season changed to year round beginning May 1994.

Table 33. Statewide small game hunting license sales and estimated hunter harvest, 1991-92 through 2002-03.

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Small game license sales ^a	317,669	297,941	276,625	289,189	298,425	298,337	305,186	320,308	327,431	320,862	298,055	288,729
Federal duck stamp sales	110,197	108,332	110,738	149,428	132,546	132,738	138,331	134,098	134,138	135,884	140,980 ^e	144,851 ^e
State duck stamp sales	104,051	104,064	104,839	116,346	122,092	122,634	126,009	126,488	128,245	121,709	118,590	119,677
Pheasant stamp sales	133,384	117,934	94,443	104,621	105,093	95,866	85,093	99,664	106,945	114,440	97,665	102,097
Estimated harvest ^b (thousands)												
Ducks ^c	784	864	824	955	1,162	1,098	1,206	1,119	1,021	969	990	1,024
Canada goose ^c	144	150	156	166	180	241	230	218	285	301	308	257
Other geese ^c	6	5	9	6	9	8	11	6	6	15	8	11
American coot ^c	13	23	15	22	28	23	29	25	25	10	17	20
Common snipe	16	9	4	2	3	5	4	5	3	3	2	3
Rails/gallinules	3	<1	1	1	1	<1	<1	<1	<1	1	<1	2
Crow	94	69	51	114	130	96	74	106	60	96	88	72
American woodcock	94	100	68	74	82	58	58	63	54	45	27	28
Ring-necked pheasant	565	411	332	319	398	341	248	309	339	375	267	358
Ruffed grouse	963	543	288	371	457	533	654	946	685	619	332	249
Spruce grouse	34	21	12	23	25	16	25	27	19	23	9	12
Sharp-tailed grouse	33	20	11	9	10	8	13	22	14	16	10	9
Gray partridge	102	49	35	26	26	24	16	24	19	17	10	11
Gray squirrel	174	147	178	187	169	158	131	149	132	140	146	134
Fox squirrel	109	92	105	99	105	75	68	57	71	65	63	67
Eastern cottontail	128	73	75	77	100	65	65	89	59	78	63	52
White-tailed jack rabbit	10	11	9	7	7	10	4	7	6	7	8	4
Snowshoe hare	70	24	16	19	11	10	8	25	21	27	22	11
Raccoon (Sept 02-Feb 03)	74	77	79	163	155	207	124	143	65	49	59	60
Raccoon ^d (Mar 02- Aug 02)				24	55	99	17	2	16	36	18	19
Red fox (Sept 02- Feb 03)	78	63	63	42	48	33	13	13	10	19	7	11
Red fox ^d (Mar 02- Aug 02)				4	6	4	2	3	1	2	4	4
Gray fox	4	4	2	1	3	n.a.	3	1	2	1	1	1
Coyote	27	21	18	13	26	30	16	14	13	29	12	14
Badger	1	<1	<1	1	1	1	1	1	1	1	<1	1

Harvest estimates in this table, and the number of hunters and mean take per hunter in Table 32, are calculated from different questions on the survey form. The sample used in calculations differs from one estimator to the next. This is because some respondents give specific answers to one question but not to a related one. A formula is used to calculate the total estimated take for each species which appears in this table. In most years the formula produces results rather close to those obtained by multiplying the average take per hunter times the number of hunters. However, in other years (e.g., 1985) results of the two methods are quite divergent, perhaps as a result of an unusual sample. This is being investigated further, and as a result, numbers may change somewhat in future reports. The most current report of survey findings will have the best data available at that time. Beginning in 1989-90 this table was changed from Resident harvest estimates to Statewide harvest estimates, which includes non-resident harvest estimates.

^a Duplicate licenses not included.

^b Estimates based upon response of hunters to questionnaires.

^c U.S. Fish and Wildlife Service HIP harvest estimates for 2002 are:

Ducks 944,600 Canada geese 235,604 Other geese 0

^d Raccoon and red fox seasons changed to year round beginning May, 1994.

^e Federal duck stamps sold have not been audited for non-hunting stamp purchasers.

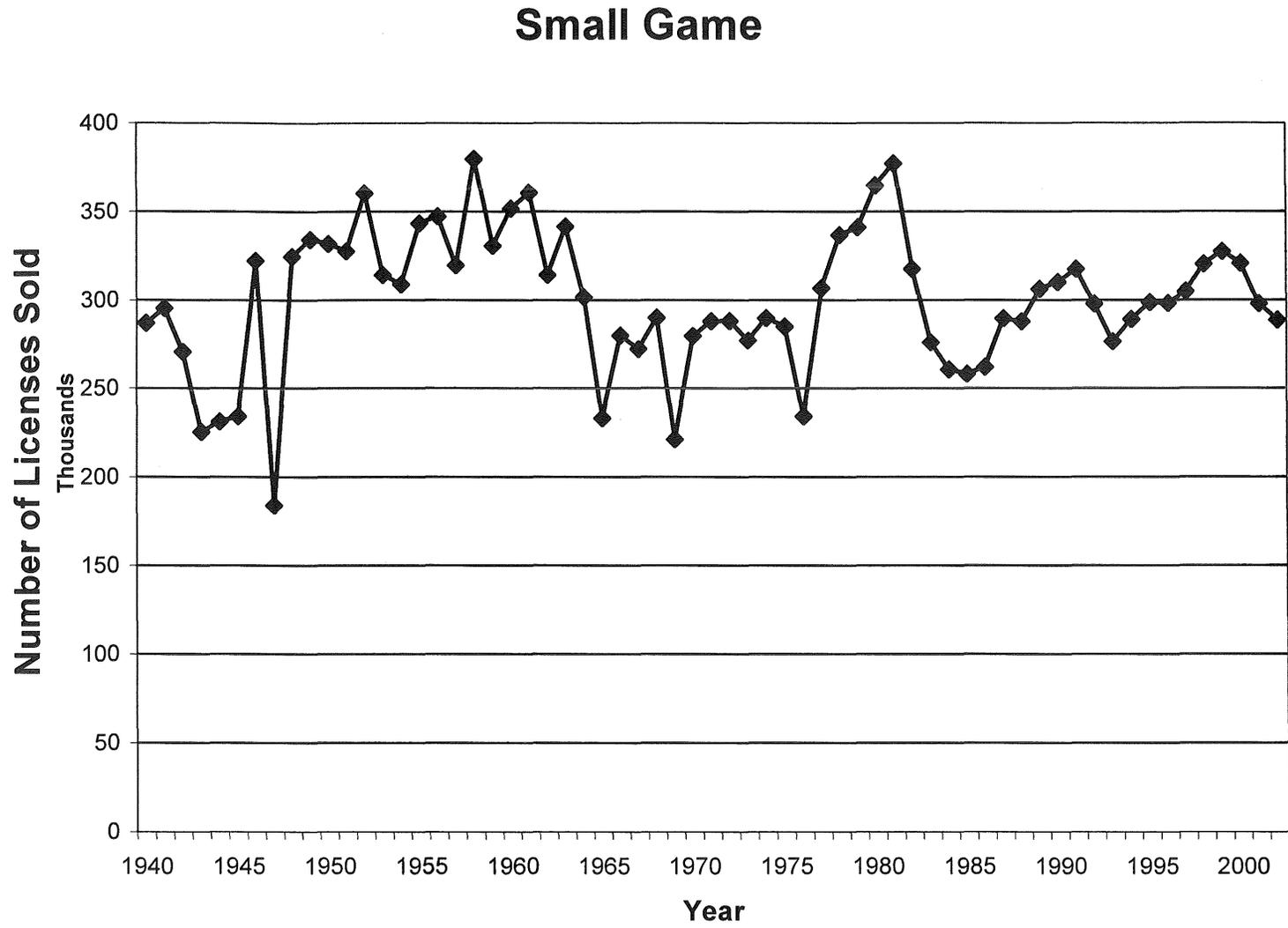


Figure 50. Numbers of Minnesota small game licenses sold, 1940 – 2002.

Table 34. Mail survey results of nonresident small game hunters, 1990-91 through 2002-03.

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Nonresident licenses issued^a	4,932	4,852	4,718	3,809	4,435	4,993	5,488	6,361	7,155	7,572	7001	5,843	5,852
Questionnaires:													
Number mailed	82	114	170	229	182	205	51	269	200	199	98	124	130
Number not delivered	7	8	8	21	7	14	4	18	17	16	6	9	9
Number (percent) returned	54 (72)	89 (83)	32 (82)	149 (72)	128 (73)	140 (73)	32 (68)	183 (73)	117 (64)	136 (74)	56 (61)	77 (67)	75 (66)
Estimated nonresidents and (percent) of all nonresidents hunting:													
Ducks	1,342 (27)	1,308 (27)	1,751 (37)	1,789 (47)	1,975 (45)	2,354 (47)	1,209 (19)	2,331 (37)	2,874 (40)	2,505 (33)	2,375 (34)	2,727 (47)	2,263 (39)
Canada goose	1,074 (22)	491 (10)	1,101 (21)	792 (21)	1,005 (23)	1,248 (25)	686 (13)	1,113 (17)	1,468 (20)	1,225 (16)	1,500 (21)	1,169 (20)	1,092 (19)
Ruffed grouse	1,789 (36)	2,017 (42)	1,465 (31)	895 (24)	1,421 (32)	1,534 (31)	2,744 (50)	2,157 (34)	3,608 (50)	3,508 (46)	3,000 (43)	1,169 (20)	2,029 (35)
Ring-necked pheasant	895 (18)	1,743 (36)	894 (19)	741 (20)	832 (19)	820 (16)	515 (9)	731 (11)	612 (8)	947 (13)	625 (9)	935 (16)	1,404 (24)
Raccoon ^b	0 (0) ^c	55 (1)	0 (0) ^c	26 (1)	0 (0) ^c *	107 (2) *	172 (3)	35 (1)	0 (0) ^c	56 (1)	250 (4)	0 (0)	0 (0)
Estimated nonresident take:													
Ducks	5,816	11,340	17,442	13,574	15,696	26,713	6,346	15,967	26,663	26,391	18,253	42,225	17,556
Canada goose	4,205	1,363	3,610	2,122	2,287	4,173	1,544	4,905	4,587	6,960	5,001	13,400	5,852
Ruffed grouse	14,852	18,100	10,758	4,985	7,242	9,415	23,153	16,072	27,886	23,384	24,003	6,622	9,207
Ring-necked pheasant	3,221	6,324	4,110	3,042	4,366	3,638	1,887	2,505	1,712	4,844	4,001	3,740	7,647
Raccoon	0	327	0	26	0	3,638	8,061	70	0	724	3,375	0	0

^a Excludes duplicate licenses and nonresident shooting preserve licenses.

^b Nonresident raccoon hunters were required to purchase a nonresident raccoon hunting license for the first time in 1979 in addition to the nonresident small game license. The initial season bag limit of 8 was increased to 12 in 1983 and to 20 in 1985.

^c In 1990, 1992, 1994, 1998, 2001 and 2002 small game hunter survey no non-residents reported hunting/harvesting raccoons. * Non-resident raccoon hunting license was not required for 1994 and 1995.

Raccoon take per hunter

	<u>Resident</u>	<u>Nonresident</u>	<u>Number of nonresident raccoon licenses</u>
1991	8	6	21
1992 ^c	9	0	20
1993	9	1	24
1994 ^c	16	0	*
1995	12	34	*
1996	23	47	52
1997	15	2	58
1998 ^c	18	0	56
1999	11	13	48
2000	8	13	51
2001	10	0	48
2002	11	0	46

Table 35. Species composition of the Minnesota waterfowl harvest, 2001 and 2002 (from: Harvest Information Program. Preliminary estimates of waterfowl harvest and hunter activity in the United States during the 2002 hunting season. U.S. Fish and Wildlife Service Adm. Rep., Office of Migratory Bird Management, Laurel, Maryland. July 2003. 33 pp.). **Note:** All hunter activity and harvest estimates are preliminary, pending final counts of the number of migratory bird hunters in each state and complete audits of all survey response data.

Species	Minnesota Harvest					Mississippi Flyway Harvest		
	2001	% of Harvest	2002	% of Harvest	Percent change in Harvest 01-02	2001	2002	Percent change Harvest 01-02
Mallard	328,231	38.37	278,399	29.47	- 15	2,768,572	2,423,134	- 12
Domestic mallard	666	0.08	0	0	-100	7,367	7,123	- 3
American black duck	333	0.04	1,862	0.20	+ 459	30,636	47,465	- 55
Black x mallard	333	0.04	0	0	-100	7,091	5,646	- 20
Gadwall	17,328	2.03	47,486	5.03	+174	828,527	673,853	- 19
American wigeon	16,661	1.95	22,812	2.41	+ 37	169,185	147,440	- 13
Green-winged teal	50,318	5.88	79,144	8.38	+ 57	573,282	548,398	- 4
Blue-winged /cinnamon teal	131,292	15.35	130,820	13.85	+ 0	611,796	451,246	- 26
Northern shoveler	15,995	1.87	11,173	1.18	- 30	231,748	128,638	- 45
Northern pintail	10,663	1.25	18,622	1.97	+ 75	122,522	102,481	- 16
Wood duck	106,300	12.43	135,010	14.29	+ 27	633,140	720,392	+ 14
Redhead	20,660	2.42	13,967	1.48	- 32	50,617	28,995	- 43
Canvasback	4,332	0.51	466	0.05	- 89	11,334	604	- 95
Greater scaup	1,999	0.23	5,587	0.59	+179	8,060	30,216	+275
Lesser scaup	36,988	4.32	49,814	5.27	+ 35	165,746	185,381	+ 12
Ring-necked duck	85,973	10.05	94,972	10.05	+ 10	226,706	250,330	+ 10
Goldeneye	8,331	0.97	16,294	1.72	+ 96	22,485	37,405	+ 66
Bufflehead	11,330	1.32	19,553	2.07	+ 73	59,465	81,526	+ 37
Ruddy duck	666	0.08	2,328	0.25	+250	4,191	4,715	+ 13
Scoters	1,000	0.12	0	0	-100	2,637	2,611	- 1
Hooded merganser	5,998	0.70	12,570	1.33	+110	43,362	60,048	+ 38
Other mergansers	0	0	3,724	0.39		6,933	11,335	+ 63
Total Duck Harvest (retrieved kill)	855,400 ± 9%	100	944,600 ± 9%	100	+ 10	6,617,800 ± 7%	5,974,100 ± 5%	- 10

^a Sum of all species does not equal total because of rounding error.

^b No percentage change.

Table 36. Top 10 states in number of **adult duck hunters**, 2002, and number of hunter-days and retrieved duck kill, in each (from: Martin, E.M., and P.I. Padding. 2003. Harvest Information Program: Preliminary estimates of waterfowl harvest and hunter activity during the 2001 and 2002 hunting seasons. U.S. Fish and Wildlife Service Adm. Rep., Division of Migratory Bird Management, Harvest Surveys Section, Laurel, Maryland. July 2003. 33 pp). **Note:** All hunter activity and harvest estimates are preliminary, pending final counts of the number of migratory bird hunters in each state, and complete audits of all survey response data.

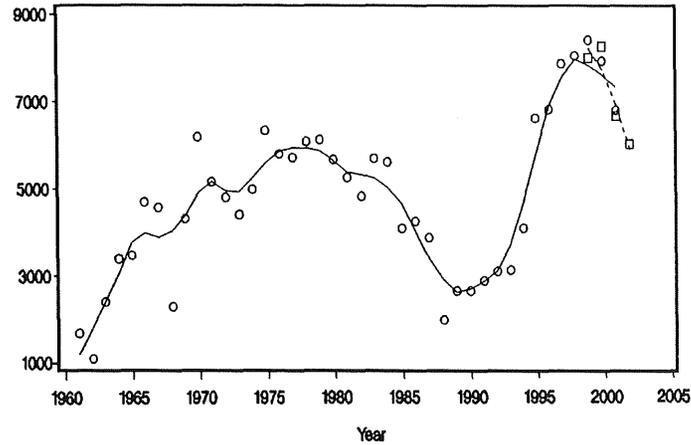
State	Number of active duck hunters	Duck hunter days afield	Total duck harvest	Seasonal duck harvest per hunter
Texas	95,000	510,400	924,400	9.7
Minnesota	87,500	599,800	644,600	10.8
Arkansas	81,700	682,100	1,137,200	13.9
Wisconsin	70,500	462,800	529,500	7.5
Louisiana	57,600	421,100	820,800	14.3
California	46,200	439,400	974,100	21.1
Michigan	39,700	269,000	416,600	10.5
North Dakota	34,700	188,200	530,600	15.3
Illinois	33,500	302,300	363,300	10.8
Pennsylvania	30,200	177,800	248,100	8.2
Mississippi Flyway		4,004,600 ± 5%	5,974,100 ± 5%	
United States		7,616,600 ± 4%	12,740,300 ± 4%	

Table 37. Top 10 states in number of **adult goose hunters**, 2002, and number of hunter-days and retrieved goose kill, in each (from: Martin, E.M., and P.I. Padding. 2003. Harvest Information Program: Preliminary estimates of waterfowl harvest and hunter activity during the 2001 and 2002 hunting seasons. U.S. Fish and Wildlife Service Adm. Rep., Division of Migratory Bird Management, Harvest Surveys Section, Laurel, Maryland. July 2003. 33 pp). **Note:** All hunter activity and harvest estimates are preliminary, pending final counts of the number of migratory bird hunters in each state, and complete audits of all survey response data.

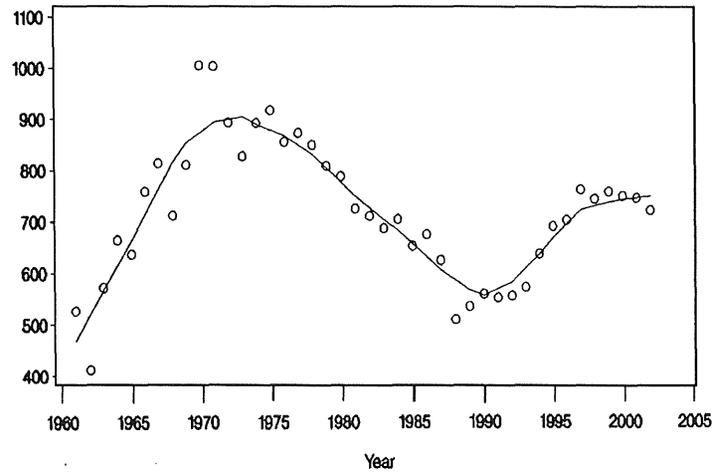
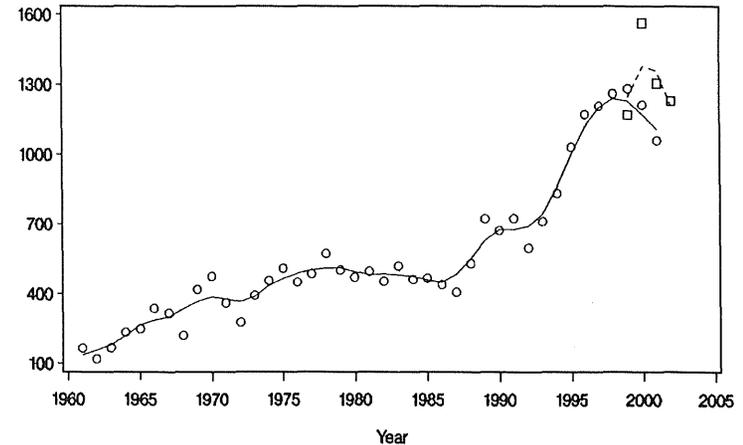
State	Number of active goose hunters	Goose hunter days afield	Total goose harvest	Seasonal goose harvest per hunter
Minnesota	66,300	425,200	239,800	3.6
Texas	63,300	197,800	343,000	5.4
Wisconsin	61,800	336,100	106,200	1.7
Pennsylvania	42,600	242,600	201,800	4.7
Tennessee	38,900	431,500	75,400	1.9
California	31,700	249,000	116,300	3.6
Michigan	28,400	139,500	102,100	3.6
Ohio	28,200	188,400	104,100	3.7
Illinois	26,000	205,700	74,300	2.9
North Dakota	24,300	121,700	134,100	5.5
Mississippi Flyway		2,415,900 ± 9%	1,233,700 ± 9%	
United States		4,722,100 ± 5%	3,378,600 ± 5%	

Mississippi Flyway

All Duck Harvest (1,000s)



All Goose Harvest (1,000s)



Duck Stamp Sales (1,000s)

Figure 51. Federal duck stamp sales; All Ducks harvested, and All Geese harvested (in 1,000s) for the Mississippi flyway (Federal Duck Stamp survey – circles and solid line, HIP survey – squares and dashed line.) The 1961 through 2001 data are final, but the 2002 numbers are preliminary pending final duck stamp sales. (from Harvest Information Program: Preliminary estimates of waterfowl harvest and hunter activity in the United States during the 2001 and 2002 hunting seasons. U.S. Fish and Wildlife Service Adm. Rep. Division of Migratory Bird Management, Harvest Surveys Section, Laurel, MD. July 2003. 33pp.)

Table 38. Ranking of the Six Most Numerically Important Species in Minnesota regular season duck harvest, 1961-2002.
From the Federal Parts Collection Survey data.

Year	Rank Position / % of Harvest												Combined % of Total Harvest		
	1	%	2	%	3	%	4	%	5	%	6	%			
1961	Mallard	46.31	L. Scaup	13.57	GW Teal	11.16	Ringneck	7.55	Wigeon	5.56	Wood Duck	4.40	88.55		
1962	Mallard	39.50	Ringneck	18.23	L. Scaup	8.03	BW Teal	7.90	Wood Dk	6.61	GW Teal	5.91	86.18		
1963	Mallard	39.87	BW Teal	13.59	Wood Dk	12.58	Ringneck	10.72	GW Teal	6.43	Wigeon	4.66	87.85		
1964	Mallard	30.53	Ringneck	18.48	BW Teal	9.50	GW Teal	7.91	Wood Dk	7.79	Wigeon	6.62	80.83		
1965	Mallard	25.30	Ringneck	23.95	L. Scaup	11.99	Wood Dk	8.16	BW Teal	5.64	Wigeon	5.29	80.33		
1966	Mallard	30.25	Ringneck	16.68	Wood Dk	9.44	BW Teal	7.79	L. Scaup	7.73	GW Teal	7.23	79.12		
1967	Mallard	33.69	BW Teal	11.82	GW Teal	10.95	Ringneck	10.18	Wood Dk	7.89	L. Scaup	5.82	80.35		
1968	Mallard	27.42	Ringneck	14.68	Wood Dk	11.94	GW Teal	11.53	BW Teal	8.13	Wigeon	6.32	80.02		
1969	Mallard	20.71	L. Scaup	15.76	Ringneck	12.82	BW Teal	12.40	Wood Dk	10.36	GW Teal	7.18	79.23		
1970	Mallard	31.43	Ringneck	11.39	BW Teal	10.63	Wood Dk	10.54	L. Scaup	9.86	GW Teal	7.50	81.35		
1971	Mallard	26.32	BW Teal	16.93	Ringneck	13.92	L. Scaup	11.49	Wood Dk	7.19	GW Teal	6.15	82.00		
1972	Mallard	36.92	L. Scaup	16.82	Ringneck	9.56	Wood Dk	8.94	BW Teal	7.41	GW Teal	5.69	85.34		
1973	Mallard	27.75	BW Teal	15.18	Ringneck	14.63	Wood Dk	10.55	L. Scaup	9.26	GW Teal	7.85	85.22		
1974	Mallard	33.12	Wood Dk	14.99	Ringneck	13.26	BW Teal	9.89	L. Scaup	7.72	GW Teal	7.53	86.51		
1975	Mallard	28.13	Ringneck	16.07	BW Teal	15.76	Wood Dk	15.46	GW Teal	6.80	L. Scaup	5.37	87.59		
1976	Mallard	27.73	Wood Dk	13.78	GW Teal	11.32	Ringneck	10.51	L. Scaup	10.48	BW Teal	8.20	82.02		
1977	Mallard	29.04	Ringneck	12.91	Wood Dk	12.87	BW Teal	11.93	GW Teal	10.45	Wigeon	6.77	83.97		
1978	Mallard	30.04	Ringneck	13.57	Wood Dk	12.23	BW Teal	11.25	GW Teal	6.86	Wigeon	5.61	79.56		
1979	Mallard	31.35	Wood Dk	15.12	BW Teal	14.93	Ringneck	11.25	Wigeon	4.80	GW Teal	4.70	82.15		
1980	Mallard	31.79	Ringneck	15.65	Wood Dk	15.49	GW Teal	6.02	L. Scaup	5.84	Wigeon	5.67	80.46		
1981	Mallard	31.37	Wood Dk	13.34	L. Scaup	10.67	Ringneck	9.99	BW Teal	8.00	GW Teal	7.14	80.51		
1982	Mallard	30.54	Wood Dk	14.76	BW Teal	14.36	Ringneck	8.83	L. Scaup	6.38	GW Teal	5.94	80.81		
1983	Mallard	29.22	Wood Dk	17.06	BW Teal	13.28	Ringneck	11.60	GW Teal	6.74	L. Scaup	5.12	83.02		
1984	Mallard	29.44	Wood Dk	18.00	BW Teal	11.90	Ringneck	9.95	GW Teal	8.23	L. Scaup	7.34	84.86		
1985	Mallard	27.98	Ringneck	18.90	Wood Dk	12.78	L. Scaup	10.94	GW Teal	6.78	BW Teal	4.12	81.50		
1986	Mallard	29.73	Wood Dk	17.18	Ringneck	16.52	L. Scaup	9.57	BW Teal	7.67	GW Teal	5.50	86.17		
1987	Mallard	31.71	Wood Dk	18.73	Ringneck	14.47	GW Teal	10.28	L. Scaup	4.95	BW Teal	4.34	84.48		
1988	Mallard	31.76	Wood Dk	14.56	L. Scaup	14.03	GW Teal	11.55	Ringneck	8.23	BW Teal	3.95	84.08		
1989	Mallard	38.62	Wood Dk	15.72	GW Teal	11.48	Ringneck	8.67	L. Scaup	6.08	BW Teal	4.63	85.20		
1990	Mallard	29.91	Wood Dk	17.16	Ringneck	11.51	GW Teal	11.23	BW Teal	7.16	L. Scaup	6.79	83.76		
1991	Mallard	35.73	Wood Dk	19.47	Ringneck	9.75	GW Teal	6.73	L. Scaup	6.13	Wigeon	4.38	82.19		
1992	Mallard	35.30	Wood Dk	17.28	Ringneck	12.95	L. Scaup	7.93	GW Teal	5.92	Wigeon	4.48	83.86		
1993	Mallard	30.94	Ringneck	22.18	Wood Dk	18.77	L. Scaup	5.56	GW Teal	3.88	BW Teal	3.10	84.43		
1994	Mallard	26.59	Wood Dk	21.51	Ringneck	14.68	L. Scaup	6.57	BW Teal	6.43	GW Teal	6.08	81.86		
1995	Mallard	26.76	Wood Dk	20.90	BW Teal	12.45	Ringneck	11.27	L. Scaup	6.89	GW Teal	4.43	82.70		
1996	Mallard	31.53	Wood Dk	19.35	BW Teal	14.06	GW Teal	7.03	Ringneck	6.56	L. Scaup	4.72	83.25		
1997	Mallard	28.12	Ringneck	13.37	Wood Dk	13.05	BW Teal	8.90	GW Teal	8.42	L. Scaup	6.90	78.76		
1998	Mallard	34.07	Wood Dk	17.20	Ringneck	12.21	GW Teal	8.90	BW Teal	7.53	L. Scaup	2.84	82.75		
1999	Mallard	30.38	Wood Dk	18.89	Ringneck	10.89	GW Teal	9.15	BW Teal	9.09	Bufflehead	4.62	83.02		
2000	Mallard	32.82	Wood Dk	15.57	BW Teal	13.71	Ringneck	12.27	GW Teal	7.54	Gadwall	3.25	85.16		
2001	Mallard	38.96	BW Teal	15.13	Wood Dk	12.20	Ringneck	10.02	GW Teal	5.96	L. Scaup	4.53	86.80		
2002	Mallard	29.47	Wood Dk	14.29	BW Teal	13.85	Ringneck	10.05	GW Teal	8.38	L. Scaup	5.27	81.31		
Avg. % of Harvest		31.4		16.4		12.7		9.7		7.3		5.6		83.1	
Range		20.71-46.31		11.39-23.95		8.03-18.77		5.56-15.46		3.88-10.48		2.84-8.20			
Number of years that species was ranked number:															
Rank 1		Rank 2		Rank 3		Rank 4		Rank 5		6					
Mallard-42		Wood Dk-21		Ringneck-13		Ringneck-14		GW Teal-13		GW Teal-14					
		Ringneck-13		BW Teal- 11		GW Teal- 10		L. Scaup-11		Wigeon - 9					
		BW Teal- 5		Wood Dk- 10		BW Teal- 7		BW Teal- 9		L. Scaup- 10					
		L. Scaup- 3		GW Teal- 4		L. Scaup- 6		Wood Dk- 5		BW Teal- 6					
				L. Scaup- 4		Wood Dk- 5		Wigeon - 2		Wood Dk- 1					
								Ringneck- 2		Bufflehead- 1					
										Gadwall- 1					

Table 39. Spring turkey hunting summary, 1978-03.

Year	Area of open hunt zone (mi ²)	Number of permit applicants	Number of permits available	Odds of drawing a permit ^a	Number of permits given	Number of persons hunting ^b	Registered turkey harvest	% success ^c
1978	389	10,740	420	25.6:1	411	398	94	23.6
1979	673	11,116	840	13.2:1	827	794	116	14.6
1980	858	9,613	1,200	8.0:1	1,191	1,072	98	9.1
1981	1,242	8,398	1,500	5.6:1	1,437	1,292	113	8.7
1982	1,490	7,223	2,000	3.6:1	1,992	1,625	106	6.5
1983	1,807	8,153	2,100	3.9:1	2,079	1,663	116	7.0
1984	2,061	7,123	3,000	2.4:1	2,837	2,270	178	7.8
1985	2,118	5,662	2,750	2.1:1	2,449	1,959	323	16.5
1986	1,897	5,715	2,500	2.3:1	2,251	1,801	333	18.5
1987	1,747	6,361	2,700	2.4:1	2,520	2,016	520	25.8
1988	1,781	8,402	3,000	2.8:1	2,994	2,395	674	28.1
1989	2,341	13,007	4,000	3.3:1	3,821	3,057	930	30.4
1990	3,819	14,326	6,600	2.2:1	6,126	5,513	1,709	31.0
1991	4,300	15,918	9,170	**	8,607	7,747	1,724	22.0
1992 ^d	4,381	15,896	9,310	**	9,051	8,146	1,691	21.0
1993	4,921	17,224	9,625	**	9,265	8,339	2,082	25.0
1994	5,881	19,424	9,940	**	9,479	8,531	1,975	23.0
1995	7,740	20,849	9,975	**	9,550	8,600	2,339	27.0
1996	17,004 [‡]	23,757	12,131	**	10,983	9,885	2,841	28.7
1997	20,118	25,958	12,530	**	11,610	10,449	3,302	31.6
1998	21,013	29,727	14,035	**	13,229	11,906	4,361	36.6
1999	25,119	35,957	18,360	**	16,387	14,748	5,132	34.8
2000	27,824	42,022	20,160	**	18,661	17,728	6,154	34.7
2001	29,876	41,048	22,936	**	21,404	20,334	6,383	31.4
2002	7,123 [❖]	42,415	24,136	**	22,607	21,477	6,516	30.3
2003	7,364 [❖]	44,415	25,016	**	22,770	21,632	7,650	33.6

^a Calculated with total permits available to be given, and not adjusting for undersubscribed zones and time periods.

^b For 1978-82, based on a post-hunt mail survey. Number actually hunting in 1983-89 was estimated at 80% (from last year survey results were tabulated). Beginning in 1991, number actually hunting was estimated at 90% (from preliminary results of 1991 survey), this was increased to 95% for 2000.

^c Registered turkey harvest divided by number actually hunting, expressed as %.

^d Legislation allows NON-RESIDENT hunters.

** Computerized preference drawing began Spring 1990.

‡ Open hunt zone area now calculated using deer permit zones.

❖ Total estimated huntable square miles (forest cover buffered by 50 meters with non-huntable areas removed).

Table 40. Spring Wild Turkey harvest in Minnesota, by permit area, 2003.

Permit Area	Harvest						Hunter Success (%) ^a
	Number of Permits Issued	Number of Adults	Number of Juveniles	Percent (%) Juveniles	Number of Unreported Age	Total	
221	75	38	3	7.3		41	54.7
223	400	119	27	18.5		146	36.5
225	541	120	35	22.6		155	28.7
227	315	107	13	10.8		120	38.1
228	241	91	15	14.2		106	44.0
235	122	49	11	18.3		60	49.2
236	467	170	30	15.0		200	42.8
244	104	21	2	8.7		23	22.1
249	71	15	4	21.1		19	26.8
337	350	107	24	18.3		131	37.4
338	474	136	23	14.5		159	33.5
339	467	114	54	32.1		168	36.0
341	1,236	379	87	18.7		466	37.7
342	1,282	323	71	18.0		394	30.7
343	1,084	366	82	18.3		448	41.3
344	732	172	49	22.2		221	30.2
345	1,306	240	70	22.6		310	23.7
346	1,939	450	123	21.5		573	29.6
347	1,126	253	83	24.7		336	29.8
348	1,251	256	100	28.1		356	28.5
349	2,524	515	164	24.2		679	26.9
410	138	57	4	6.6		61	44.2
411	150	35	23	39.7		58	38.7
412	222	81	11	12.0		92	41.4
415	366	122	15	10.9		137	37.4
416	73	36	5	12.2		41	56.2
417	178	59	18	23.4		77	43.3
418	334	117	20	14.6		137	41.0
419	185	34	13	27.7		47	25.4
422	34	15	5	25.0		20	58.8
425/435 ^b	363	109	43	28.3		152	41.9
426	37	4	1	20.0		5	13.5

Table 40. (Continued)

Permit Area	Number of Permits Issued	Harvest				Total	Hunter Success (%)
		Number of Adults	Number of Juveniles	Percent (%) Juveniles	Number of Unreported Age		
427	35	10	7	41.2		17	48.6
428	77	26	1	3.7		27	35.1
429	139	19	9	32.1		28	20.1
431	38	11	4	26.7		15	39.5
433/446/447	39	19	3	13.6		22	56.4
440	376	120	64	34.8		184	48.9
442	1,138	296	135	31.3	1	432	38.0
443	472	110	57	33.9	1	168	35.6
448/449	56	31	1	3.1		32	57.1
450	36	14	3	17.6		17	47.2
451/452/453	39	20	4	16.7		24	61.5
454/455/456/458	41	9	0	0.0		9	22.0
457	37	13	0	0.0		13	35.1
459	120	24	12	33.3		36	30.0
461	550	138	55	28.5		193	35.1
462	474	124	50	28.7		174	36.7
463	132	23	18	43.9		41	31.1
464	146	22	17	43.6		39	26.7
465	188	36	16	30.8		52	27.7
466	188	53	24	31.2		77	41.0
467	262	65	20	23.3	1	86	32.8
Unknown		19	7	26.9		26	
Total	22,770	5,912	1,735	22.7	3	7,650	33.6

^a Success rate not adjusted for non-participants.

^b Includes only a small portion of permit area 425.

Table 41. Fall turkey hunting summary, 1990-2002.

Year	Area of open hunt zone (mi ²)	Number of permit applicants	Number of permits available	Number of permits issued	Number of persons hunting ^a	Registered turkey harvest	% Success ^b
1990		4,522	1,000	951	856	326	38
1991		2,990	2,200	2,020	1,818	552	30
1992		2,750	2,200	2,028	1,825	588	32
1993		3,162	2,400	2,094	1,885	605	32
1994		3,124	2,500	2,106	1,895	601	32
1995		3,590	2,500	2,125	1,913	648	34
1996	7,241 [‡]	4,366	2,500	2,289	2,060	685	33
1997	7,241	4,574	2,580	2,378	2,140	698	33
1998	7,241	4,526	2,710	2,483	2,235	828	37
1999	9,286	5,354	2,890	2,644	2,380	865	36
2000	9,286	5,263	3,090	2,484	2,236	735	33
2001	7,566	4,501	2,870	2,262	2,036	629	31
2002	11,168	5,180	3,790	2,945	2,651	594	22

^a Number hunting estimated at 90% of permits issued based on survey results.

^b Registered turkey harvest divided by number actually hunting, expressed as %.

[‡] Total area of open hunt zone calculated from Deer Permit Zone information of area/miles².

Table 42. Fall wild turkey harvest by permit area, 2002.

Permit Area	Female			Male			Unknown Age/Sex	Total
	Juvenile	Adult	Unknown	Juvenile	Adult	Unknown		
228	2	2			1		1	6
236	1	2			3			6
337	5	3			1			9
338	5	3		3	7			18
339		7		2	9			18
341	16	27		6	12		3	64
342	10	19		13	8			50
343	4	2			1			7
344	7	17		2	1			27
345	3	12		2	6			23
346	14	18		10	5			47
347	3	10		7	7			27
348	25	21		9	8			63
349	43	29		12	13		1	98
442	10	13		10	8	1		42
461	4	4		2	2			12
462	5	4		1	7			17
464				2				2
465	1	1						2
466	1	1	2	3	2	1	2	12
467	2	1	1	1			5	10
Unknown	8	9		9	8			34
Total	169	205	3	94	109	2	12	594

**2002 FALL WILD TURKEY
PERMIT AREA QUOTAS**

WILD TURKEY PERMIT AREA NUMBER	TIME PERIOD AND DATE	
	A October 16-20	B October 23-27
228	25	25
236	35	35
337	40	40
338	60	60
339	50	50
341	200	200
342	200	200
343	60	60
344	100	100
345	125	125
346	195	195
347	75	75
348	150	150
349	280	280
442	100	100
461	50	50
462	50	50
464	20	20
465	20	20
466	30	30
467	30	30
TOTAL	1,895	1,895

Carlos Avery W.M.A. Closed to Fall Hunting

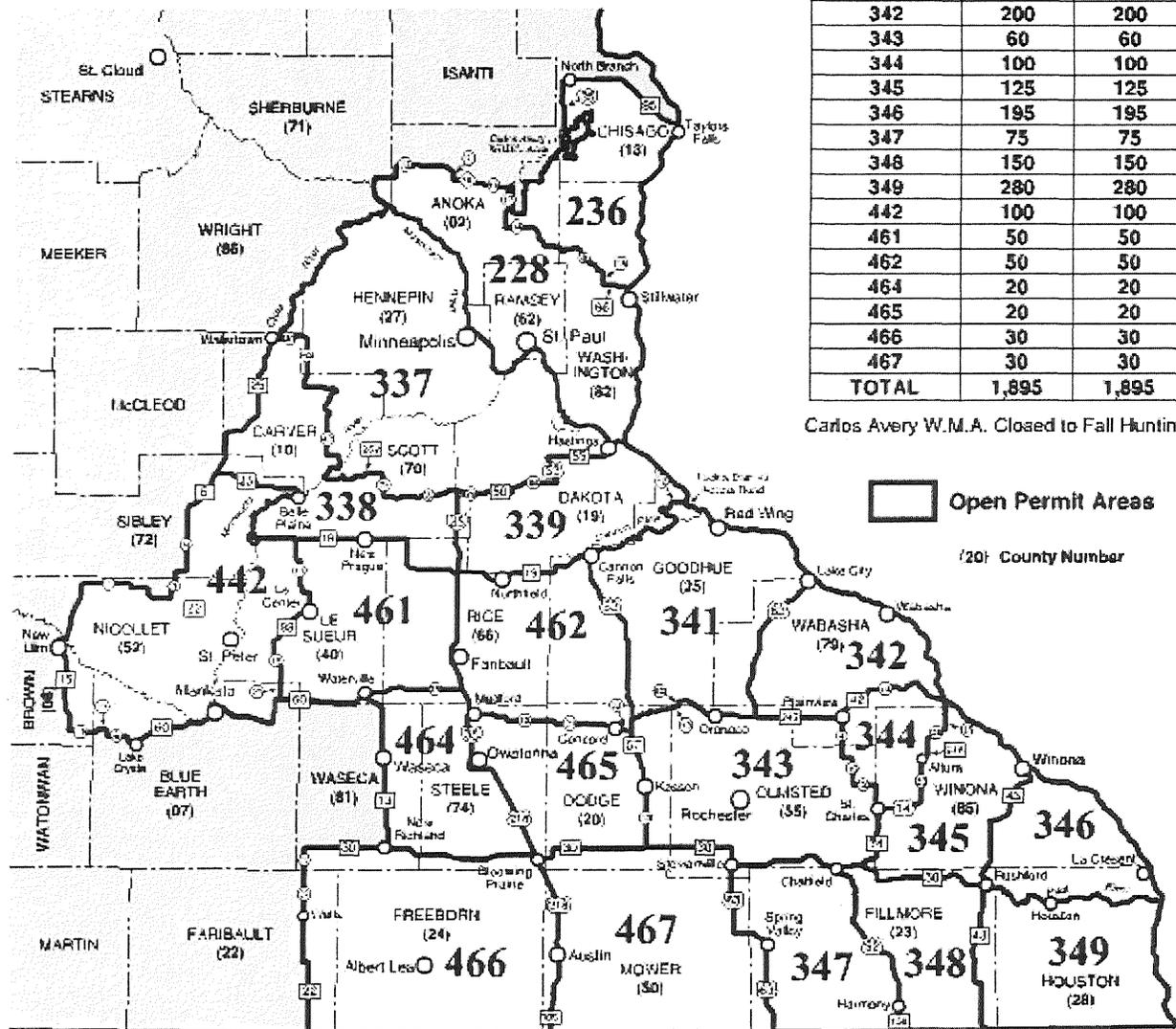


Figure 53. Fall wild turkey hunt zones, 2002.

Table 43. Deer hunting license sales, 1957-2002^a.

Year	Firearms License Sales			Archery License Sales			Grand Total
	Resident	Non-resident	Total	Resident	Non-resident	Total	
1957	180,028	488	180,516	10,033	119	10,152	190,668
1958	203,430	552	203,982	10,968	118	11,086	215,068
1959	200,102	530	200,632	11,768	101	11,869	212,501
1960	233,593	621	234,214	11,834	122	11,956	246,170
1961	250,031	632	250,663	13,229	141	13,370	264,033
1962	244,166	676	244,842	11,776	150	11,926	256,768
1963	257,333	771	258,104	11,724	165	11,889	269,993
1964	278,032	1,021	279,053	13,472	193	13,665	292,718
1965	289,918	1,128	291,046	15,628	265	15,893	306,939
1966	284,195	1,287	285,482	17,203	277	17,480	302,962
1967	305,717	1,311	307,028	18,405	289	18,694	325,722
1968	302,216	1,442	303,658	20,188	292	20,480	324,138
1969	253,891	1,168	255,059	15,658	256	15,914	270,973
1970	188,166	334	188,500	12,277	220	12,497	200,997
1971	no firearms season			17,360	111	17,471	17,471
1972	257,998	959	258,957	21,985	326	22,311	281,268
1973	294,349	1,342	295,691	29,169	545	29,714	325,405
1974	296,248	1,747	297,995	30,701	644	31,345	329,340
1975	327,596	1,921	329,517	31,836	804	32,640	362,157
1976	263,868	1,029	264,897	21,773	263	22,036	286,933
1977	287,271	1,430	288,701	29,404	402	29,806	318,507
1978	307,910	1,776	309,686	32,546	476	33,022	342,708
1979	312,754	1,910	314,664	35,657	447	36,104	350,768
1980	344,516	2,378	346,894	41,328	634	41,962	388,856
1981	369,425	2,973	372,398	50,063	906	50,969	423,367
1982	369,018	3,038	372,056	54,084	848	54,932	426,988
1983	391,099	3,611	394,710	55,822	478	56,300	451,010
1984	396,074	4,307	400,381	61,576	583	62,159	462,540
1985	416,474	4,983	421,457	66,687	589	67,276	488,733
1986	413,542	4,476	418,018	68,689	547	69,236	487,254
1987	414,426	4,931	419,357	70,195	604	70,799	490,156
1988 ^b	06,733	5,616	412,349	67,182	717	67,899	480,248
1989	405,469	6,141	411,610	66,992	714	67,706	479,316
1990	413,282	6,461	419,743	67,034	742	67,783	427,526
1991	424,576	6,854	431,430	71,168	800	71,968	503,398
1992	448,716	8,033	456,749	71,946	914	72,860	529,609
1993	443,931	8,521	452,452	70,053	1,142	71,195	523,647
1994	452,344	9,227	461,571	71,409	1,156	72,565	534,136
1995	451,164	9,401	460,565	72,477	1,180	72,477	533,042
1996	431,163	8,596	439,759	66,732	1,098	67,830	507,589
1997	369,190	7,830	377,020	63,499	980	64,479	441,499
1998	378,734	8,852	387,586	63,908	1,029	64,937	452,523
1999	399,008	9,894	408,902	66,733	1,084	67,817	476,719
2000	449,112	10,767	459,879	68,947	1,271	70,218	530,097
2001	450,649	11,137	461,786	69,732	1,288	71,020	532,806
2002 ^c	429,143	11,006	440,149	57,532	1,275	58,807	498,956

^a Duplicate licenses not included. Leech Lake licenses are included during years they were issued.

^b Bonus licenses not included beginning 1988.

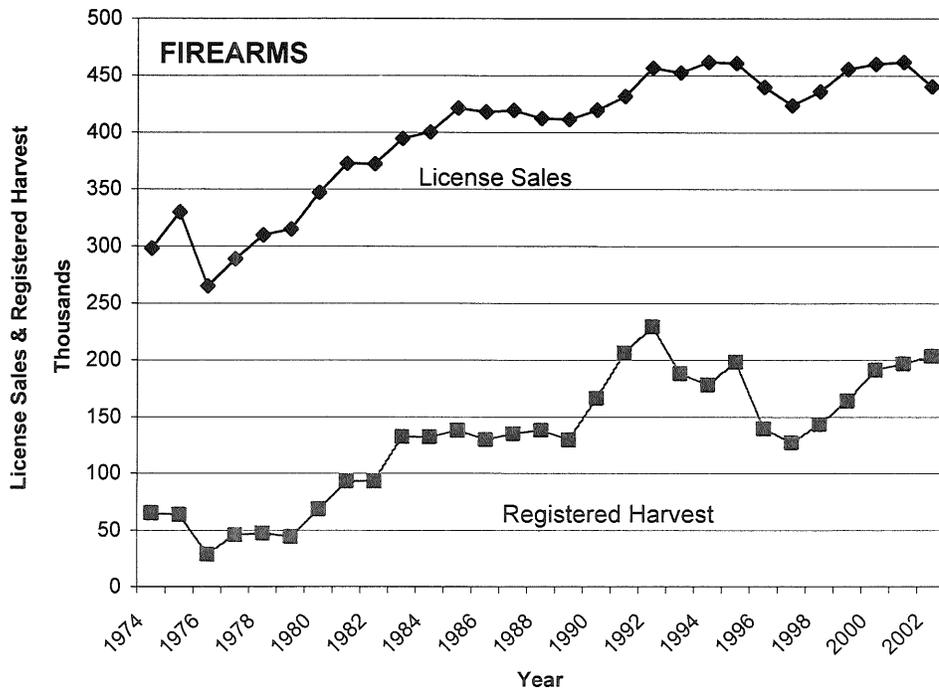
^c Lifetime license sales included 2002.

Table 44. Registered deer harvest and hunter success rates, 1974-2002.

	Registered Harvest				Percent Success	
	Regular firearms	Archery	Special Muzzleloader season ^a	Total	Regular firearms and special muzzleloader seasons	Archery
1974	64,997	2,176	-	67,173	21.8	6.9
1975	63,604	2,265	-	65,869	19.3	6.9
1976	28,613	1,167	-	29,780	10.8	5.3
1977	45,918	2,609	32	48,559	15.9	8.8
1978	47,372	2,608	346	50,326	15.4	7.9
1979	44,340	2,577	318	47,235	14.2	7.1
1980	68,539	3,641	294	72,474	19.8	8.7
1981	93,027	5,535	385	98,947	25.1	10.9
1982	93,045	5,566	441	99,052	25.1	10.1
1983	132,457	5,977	652	139,086	33.6	10.6
1984	132,042	6,390	532	138,941	33.0	10.3
1985	138,065	7,575	563	146,203	33.4	11.3
1986	129,770	7,610	593	137,923	31.2	11.1
1987	135,003	7,535	535	143,073	32.4	10.9
1988	138,946	8,262	686	147,894	33.6	12.0
1989	129,551	9,307	622	139,480	31.4	13.5
1990	166,589	11,106	730	178,425	39.4	16.1
1991	206,275	12,964	961	220,200	46.9	17.5
1992	229,236	13,004	828	243,068	46.1	14.9
1993	188,109	13,722	1,097	202,928	40.0	16.1
1994	178,283	13,818	1,725	193,826	37.1	16.1
1995	198,193	14,521	2,452	215,166	40.1	16.8
1996	139,348	14,338	3,367	157,053	29.8	17.1
1997	126,905	13,258	3,164	143,327	27.8	16.2
1998	143,396	12,306	3,152	158,854	31.4	15.2
1999	164,265	13,376	2,928	180,569	34.8	15.8
2000	191,453	15,776	4,548	211,777	38.6	17.4
2001	197,063	15,884	4,494	217,441	37.9	17.1
2002	203,793	14,752	3,505	222,050	37.4	19.2

^a No special muzzleloader seasons were held before 1977.

a)



b)

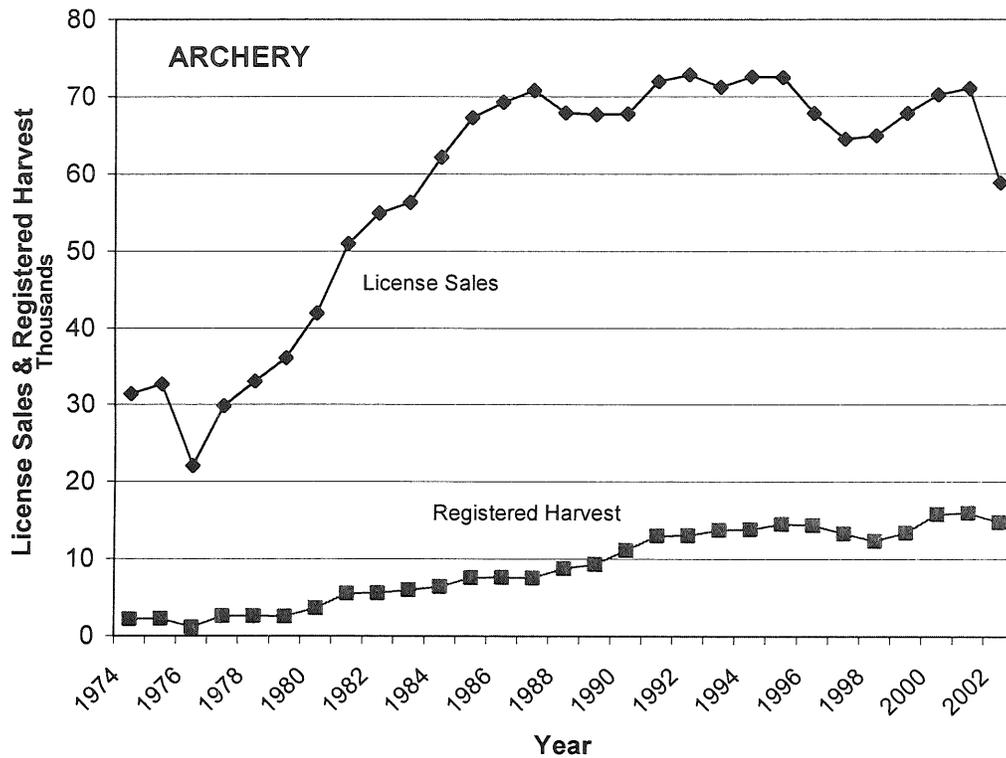


Figure 54. Numbers of Minnesota deer hunting licenses sold and registered harvest by a) firearm and b) archery hunters, 1974 – 2002.

Table 45. White-tailed deer harvest by Sub-DMU and permit area, 2002^a.

Sub-DMU	Permit Area	Antlerless Registered	Bucks Registered	Total Registered Harvest
Red River West	401A(B)	84 (121)	82 (71)	166 (192)
	402A(B)	269 (197)	187 (77)	456 (274)
	Total A(B)	353 (318)	269 (148)	622 (466)
Red River East	403 A(B)	143 (307)	90 (142)	233 (449)
	404 A(B)	205 (285)	240 (206)	445 (491)
	405 A(B)	242 (326)	203 (114)	445 (440)
	406 A(B)	237 (291)	194 (111)	431 (402)
	407 A(B)	444 (342)	266 (114)	710 (456)
	408 A(B)	286 (249)	221 (80)	507 (329)
	Total A(B)	1,557 (1,800)	1,214 (767)	2,771 (2,567)
Aggasiz	201	71	95	166
	202	286	276	562
	203	38	80	118
	204	498	743	1,241
	205	1,118	1,018	2,136
	206	778	595	1,373
	207	291	381	672
	208	231	313	544
	209	494	488	982
	210	773	690	1,463
	Total	4,578	4,679	9,257
Rainy River West	211	691	1,297	1,988
	213	0	0	0
	214	11	52	63
	Total	702	1,349	2,051
Rainy River Central	104	857	1,200	2,057
	110	533	467	1,000
	Total	1,390	1,667	3,057
Rainy River East	107	1,279	1,972	3,251
Superior Wilderness	115	1,345	2,203	3,548
	116	0	148	148
	Total	1,345	2,351	3,696
Superior Central	122	114	413	527
Superior East	126	92	456	548
	127	13	85	98
	Total	105	541	646
Itasca North West	167	1,184	1,087	2,271
	168	1,154	1,357	2,511
	283	242	174	416
	Total	2,580	2,618	5,198
Itasca North East	175	1,136	1,897	3,033
	178	1,338	2,091	3,429
	Total	2,474	3,988	6,462

Table 45 (con't.)

Sub-DMU	Permit Area	Antlerless Registered	Bucks Registered	Total Registered Harvest
Itasca South East	180	427	1,336	1,763
	181	898	1,778	2,676
	183	1,191	1,557	2,748
	199	32	127	159
	Total	2,548	4,798	7,346
Itasca South West	170	1,902	2,349	4,251
	172	2,495	1,956	4,451
	174	1,235	1,273	2,508
	Total	5,632	5,578	11,210
Leech Lake I.R.	197	363	876	1,239
Bemidji	284	3,598	3,493	7,091
	285	413	385	798
	287	279	167	446
	Total	4,290	4,045	8,335
Mille Lacs West	244	3,278	2,112	5,390
	245	3,080	2,244	5,324
	251	161	122	283
	Total	6,519	4,478	10,997
Mille Lacs Central	242	1,147	666	1,813
	243	1,816	1,144	2,960
	246	2,458	2,114	4,572
	247	946	810	1,756
	248	398	433	831
	249	1,590	1,259	2,849
	Total	8,355	6,426	14,781
Mille Lacs East	152	81	114	195
	154	2,626	1,972	4,598
	156	1,500	1,529	3,029
	157	4,158	2,774	6,932
	159	2,108	1,458	3,566
	Total	10,473	7,847	18,320
White Earth I.R.	297	80	194	274
	298	264	600	864
	Total	344	794	1,138
Big Woods North	409 A(B)	1,223 (936)	715 (157)	1,938 (1,093)
	410 A(B)	1,571 (852)	1,053 (185)	2,624 (1,037)
	411 A(B)	1,510 (1,008)	1,073 (162)	2,583 (1,170)
	412 A(B)	954 (412)	743 (124)	1,697 (536)
	413 A(B)	1,140 (952)	714 (159)	1,854 (1,111)
	414 A(B)	1,017 (598)	865 (171)	1,882 (769)
	415 A(B)	628 (436)	432 (137)	1,060 (573)
	416 A(B)	244 (201)	327 (95)	571 (296)
	417 A(B)	482 (381)	568 (151)	1,050 (532)
	418 A(B)	490 (319)	348 (87)	838 (406)
	419 A(B)	211 (167)	239 (69)	450 (236)
	429 A(B)	91 (132)	82 (32)	173 (164)
	Total A(B)	9,561 (6,394)	7,159 (1,529)	16,720 (7,923)

Table 45 (con't.)

Sub-DMU	Permit Area	Antlerless Registered	Bucks Registered	Total Registered Harvest
Big Woods Central	221	1,341	977	2,318
	222	1,176	831	2,007
	223	671	502	1,173
	224	161	115	276
	225	1,647	1,407	3,054
	Total	4,996	3,832	8,828
Big Woods Metro North	227	885	840	1,725
	228	222	232	454
	235	41	73	114
	236	787	737	1,524
	Total	1,935	1,882	3,817
Big Woods Metro South	337 A(B)	209 (88)	200 (41)	409 (129)
	338 A(B)	8 (188)	133 (49)	141 (237)
	339 A(B)	12 (162)	176 (29)	188 (191)
	Total A(B)	229 (438)	509 (119)	738 (557)
Big Woods Southeast	341 A(B)	5 (821)	509 (202)	514 (1,023)
	342 A(B)	2 (642)	390 (160)	392 (802)
	343 A(B)	4 (604)	508 (197)	512 (801)
	344 A(B)	1 (366)	350 (72)	351 (438)
	345 A(B)	3 (580)	335 (133)	338 (713)
	346 A(B)	32 (890)	640 (240)	672 (1,130)
	347 A(B)	9 (621)	481 (173)	490 (794)
	348 A(B)	4 (799)	485 (195)	489 (994)
	349 A(B)	16 (1,156)	793 (311)	809 (1,467)
	Total A(B)	76 (6,479)	4,491 (1,683)	4,567 (8,162)
Prairie North	420 A(B)	172 (152)	152 (71)	324 (223)
	421 A(B)	174 (84)	127 (69)	301 (153)
	422 A(B)	170 (74)	124 (37)	294 (111)
	423 A(B)	156 (59)	133 (42)	289 (101)
	424 A(B)	167 (128)	223 (73)	390 (201)
	425 A(B)	45 (43)	58 (32)	103 (75)
	426 A(B)	133 (144)	168 (66)	301 (210)
	427 A(B)	97 (72)	164 (37)	261 (109)
	428 A(B)	123 (139)	134 (51)	257 (190)
	Total A(B)	1,237 (895)	1,283 (478)	2,520 (1,373)
Prairie River	431 A(B)	81 (81)	93 (55)	174 (205)
	433 A(B)	126 (99)	169 (56)	295 (155)
	435 A(B)	172 (111)	230 (90)	402 (201)
	440 A(B)	223 (58)	249 (28)	472 (86)
	442 A(B)	194 (171)	292 (70)	486 (241)
	443 A(B)	116 (89)	166 (39)	282 (128)
	Total A(B)	912 (609)	1,199 (338)	2,111 (947)

Table 45 (con't.)

Sub-DMU	Permit Area	Antlerless Registered	Bucks Registered	Total Registered Harvest
Prairie Southwest	446 A(B)	122 (107)	119 (74)	241 (181)
	447 A(B)	111 (50)	119 (24)	230 (74)
	448 A(B)	173 (101)	157 (36)	330 (137)
	449 A(B)	180 (93)	176 (45)	356 (138)
	450 A(B)	75 (64)	69 (28)	144 (92)
	451 A(B)	78 (107)	94 (95)	172 (202)
	452 A(B)	74 (106)	91 (102)	165 (208)
	453 A(B)	59 (63)	149 (64)	208 (127)
	454 A(B)	145 (122)	186 (108)	331 (230)
	455 A(B)	17 (25)	22 (16)	39 (41)
	456 A(B)	126 (85)	166 (94)	292 (179)
	457 A(B)	97 (97)	134 (55)	231 (152)
	458 A(B)	96 (103)	139 (69)	235 (172)
	459 A(B)	181 (172)	218 (75)	399 (247)
	Total A(B)	1,534 (1,295)	1,839 (885)	3,373 (2,180)
Prairie Southeast	461 A(B)	199 (176)	181 (49)	380 (225)
	462 A(B)	172 (169)	191 (56)	363 (225)
	463 A(B)	116 (80)	140 (33)	256 (113)
	464 A(B)	81 (73)	87 (43)	168 (116)
	465 A(B)	72 (104)	76 (43)	148 (147)
	466 A(B)	137 (178)	209 (100)	346 (278)
	467 A(B)	102 (166)	141 (104)	243 (270)
	Total A(B)	879 (946)	1,025 (428)	1,904 (1,374)
Special Hunt Totals	--	547	151	698
GRAND TOTALS		96,170	85,949	182,119

Table 46. Archery deer harvest by Sub-DMU and permit areas, 1994-2002.

Sub-DMU	Permit Area	1994*	1995*	1996*	1997*	1998*	1999*	2000*	2001*	2002*
Red River West	401	97	159	131	103	63	30	54	98	59
	402	120	94	83	74	71	37	88	120	82
Red River East	403	79	121	49	46	43	17	64	59	54
	404	48	91	59	42	56	31	45	70	52
	405	40	20	18	28	32	5	33	51	34
	406	34	14	29	29	40	15	50	70	44
	407	114	98	53	82	27	8	44	86	86
	408	37	35	13	22	44	1	20	32	37
Agassiz	201	11	9	6	2	0	2	3	10	4
	202	16	21	17	6	2	12	14	35	34
	203	2	2	2	1	0	1	0	0	0
	204	62	66	49	29	16	31	65	69	45
	205	151	183	79	58	56	52	101	58	106
	206	62	84	73	42	14	25	50	59	90
	207	14	23	13	16	6	8	20	29	15
	208	33	32	15	6	2	5	10	18	14
	209	48	44	37	44	49	32	36	37	27
	210	33	29	17	31	15	18	33	39	39
Rainy River West	211	96	116	70	18	4	4	77	70	68
	213	0	1	1	1	0	0	0	13	7
	214	11	2	9	6	2	2	7	10	8
Rainy River Central	104	9	10	1	0	2	19	24	14	16
	110	11	17	4	1	2	10	12	15	20
Rainy River East	107	18	20	4	2	2	34	21	38	43
Superior Wilderness	115	0	0	0	0	1	15	12	28	30
	116	1	3	0	0	1	0	0	0	2
Superior Central	122	10	12	4	1	1	1	14	10	9
Superior East	126	9	20	7	3	2	3	14	15	12
	127		1	0	0	1	4	0	2	1
Itasca North West	167	16	13	5	2	3	20	23	21	24
	168	24	32	2	5	4	71	57	63	48
	283						7	9	11	12
Itasca North East	175	36	50	9	8	10	58	25	67	39
	178	15	12	5	2	5	70	34	62	79
Itasca South West	170	60	60	15	29	26	139	149	143	92
	172	36	47	14	14	28	69	90	64	100
	174	31	24	8	8	12	49	63	54	47
Itasca South East	180	81	86	3	36	45	39	93	103	63
	181	29	32	12	4	10	119	112	154	154
	183	45	42	13	17	25	86	94	93	81
	199	3	2	3	2	2	6	2	5	1
Leech Lake I.R.	197	15	13	9	2	11	12	39	24	16
Bemidji	284	143	113	99	46	72	300	377	296	367
	285	18	30	15	8	7	6	16	10	17
	287	3	10	1	0	0	3	0	3	0

Table 46 (cont.)

Sub-DMU	Permit Area	1994*	1995*	1996*	1997*	1998*	1999*	2000*	2001*	2002*
Mille Lacs West	244	68	54	15	56	85	54	151	89	134
	245	67	64	10	43	37	114	164	41	50
	251	2	7	1	2	4	1	3	1	1
Mille Lacs Central	242									456
	243						93	86	177	106
	246	159	129	80	142	160	85	160	177	113
	247	208	186	253	222	300	252	340	596	217
	248	51	49	56	41	49	69	155	50	91
	249	74	74	85	71	97	128	82	103	169
Mille Lacs East	152	5	3	6	5	5	10	6	5	4
	154	2	21	28	33	52	122	137	107	209
	156	56	50	67	53	78	82	120	96	89
	157	70	62	66	68	69	231	429	375	462
	159	163	122	147	131	162	157	323	310	234
White Earth I.R.	297	5	7	0	4	0	0	5	1	1
	298	3	2	1	0	1	3	11	7	2
Big Woods North	409	164	185	252	274	217	160	381	290	139
	410	227	242	175	169	84	39	228	251	271
	411	207	202	181	164	163	118	232	338	256
	412	213	269	288	189	111	226	241	242	208
	413	243	288	293	224	266	173	275	239	331
	414	86	234	123	204	210	241	303	289	195
	415	219	205	218	215	243	276	174	335	242
	416	65	84	161	116	157	188	164	141	42
	417	216	256	275	339	180	258	207	189	119
	418	252	252	248	286	188	207	169	163	220
	419	123	246	280	242	227	220	223	252	159
	429	156	76	118	142	121	122	106	125	140
	Big Woods Central	221	81	77	126	95	115	112	261	145
222		42	57	48	35	63	53	100	147	146
223		307	293	342	265	260	250	287	246	313
224		11	10	17	21	13	10	22	15	24
225		70	77	154	129	120	351	334	424	304
Big Woods Metro North		227	385	353	382	343	325	396	376	488
	228	689	711	828	734	756	768	772	790	551
	235	35	44	41	68	29	38	29	37	22
	236	602	623	611	572	550	583	524	618	705
Big Woods Metro South	337	861	953	901	821	681	817	820	747	567
	338	112	215	158	127	147	82	104	109	65
	339	256	245	244	239	220	226	165	226	209
Big Woods Southeast	341	134	223	279	286	317	363	353	352	353
	342	88	129	133	119	120	128	194	181	143
	343	400	391	467	615	476	573	524	590	551
	344	91	88	105	91	48	70	68	41	57
	345	105	197	154	174	159	145	214	142	193
	346	116	105	190	270	167	168	216	194	203
	347	208	195	197	201	151	184	198	196	198
	348	101	70	163	156	195	171	250	186	198
	349	92	84	150	173	181	182	274	258	269

Table 46 (cont.)

Sub-DMU	Permit Area	1994*	1995*	1996*	1997*	1998*	1999*	2000*	2001*	2002*
Prairie North	420	100	94	128	72	0	24	71	83	74
	421	81	81	83	75	29	30	61	82	50
	422	53	52	64	46	38	43	28	38	23
	423	30	46	35	21	38	23	23	33	23
	424	42	65	118	57	23	35	37	28	15
	425	44	102	90	26	19	46	25	20	18
	426	110	101	52	39	38	82	38	53	27
	427	33	51	45	44	43	37	35	48	30
	428	101	89	96	82	80	81	82	106	51
Prairie River	431	48	38	91	56	76	80	33	16	13
	433	174	122	137	151	78	121	114	94	56
	435	79	71	91	99	52	61	64	65	24
	440	74	112	122	130	97	96	121	91	75
	442	191	222	203	191	169	145	221	219	156
	443	94	76	97	72	81	58	87	84	59
Prairie Southwest	446	16	23	31	15	28	16	43	24	12
	447	41	38	45	24	42	24	48	21	10
	448	47	40	41	26	26	20	18	36	22
	449	78	100	113	79	78	36	49	83	44
	450	34	44	32	35	28	33	23	27	19
	451	45	57	79	48	39	35	39	40	31
	452	39	37	83	45	72	53	68	37	36
	453	42	43	57	38	29	39	37	19	27
	454	93	77	156	81	77	85	87	79	60
	455	21	18	11	10	17	16	19	18	10
	456	82	77	80	96	71	93	82	61	46
	457	71	33	78	44	40	58	66	44	36
	458	84	60	83	59	52	54	61	41	38
	459	74	84	106	123	73	91	84	59	46
Prairie Southeast	461	145	131	108	132	163	125	152	74	62
	462	143	234	275	206	218	265	206	240	238
	463	47	47	44	26	52	34	37	51	27
	464	55	64	125	77	92	50	48	48	50
	465	85	171	172	143	135	159	94	68	75
	466	121	113	164	133	163	223	221	98	95
	467	153	173	162	204	235	130	200	218	195
Unknown	UNK	0	0	0	0	0	0	0	0	0
Camp Ripley		267	247	160	142	175	203	375	350	337
TOTAL		13,427	4,013 (527)†	14,338 (765)†	13,258 (1,009)†	12,306 (448)†	13,376 (581)†	16,151 (1,167)†	16,245 (1,639)†	14,752 (2,638)†

* Includes Regular licenses, Management permits, Intensive harvest permits, and Special permit areas.

† Harvest in () shows Intensive Harvest Permit harvest.

Table 47. Muzzleloader Season harvest by block, 2002 (Includes Special Permit Areas)

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
104	23	0	12	1	36
107	5	1	4	1	11
110	0	1	1	1	3
115	3	0	8	1	12
152	1	3	0	0	4
154	6	5	16	2	29
156	1	1	7	0	9
157	10	10	89	2	111
159	7	2	29	3	41
167	1	0	2	1	4
168	1	2	2	1	6
170	4	1	7	2	14
172	3	0	8	1	12
174	0	1	1	0	2
175	1	0	3	0	4
178	4	0	3	1	8
180	4	0	1	0	5
181	1	1	4	0	6
183	9	2	4	0	15
197	3	0	3	0	6
201	0	0	2	0	2
202	4	0	4	1	9
204	8	1	3	2	14
205	7	5	29	4	45
206	4	4	19	7	34
207	3	0	1	1	5
208	3	0	2	0	5
209	1	0	6	0	7
210	3	0	11	1	15
211	12	1	19	2	34
214	0	0	1	0	1
221	1	2	7	2	12
222	0	4	11	5	20
223	1	1	9	2	13
224	0	0	1	1	2
225	7	10	26	9	52
227	2	6	18	7	33
228	1	7	22	1	31
235	1	1	2	0	4
236	6	11	33	6	56
242	6	11	37	20	74
243	0	1	7	3	11
244	9	4	16	4	33
245	1	6	11	4	22
246	4	14	58	7	83
247	3	2	14	2	21
248	1	1	6	2	10
249	3	5	10	1	19
283	0	0	4	0	4
284	10	2	13	0	25
285	2	0	1	2	5

Table 47. (continued).

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
297	2	0	0	0	2
298	2	0	1	1	4
337	4	6	14	3	27
338	6	4	2	1	13
339	1	4	7	1	13
341	4	3	14	0	21
342	3	5	10	1	19
343	10	9	37	4	60
344	5	1	10	3	19
345	3	2	12	0	17
346	4	7	19	6	36
347	8	9	35	8	60
348	6	8	27	5	46
349	8	5	35	6	54
401	9	8	29	2	48
402	11	7	35	7	60
403	12	2	14	1	29
404	6	1	4	3	14
405	3	3	9	1	16
406	6	2	8	1	17
407	11	7	26	4	48
408	4	6	12	3	25
409	1	6	18	0	25
410	5	14	36	11	66
411	2	4	19	6	31
412	8	9	21	6	44
413	6	16	38	7	67
414	1	9	11	1	22
415	8	7	10	4	29
416	13	6	25	2	46
417	127	39	106	32	304
418	5	9	18	1	33
419	12	10	15	3	40
420	7	2	6	1	16
421	4	4	6	1	15
422	6	0	7	2	15
423	1	1	2	1	5
424	11	6	13	1	31
425	5	1	3	1	10
426	2	6	7	2	17
427	2	2	5	3	12
428	4	1	8	0	13
429	3	3	10	1	17
431	3	4	11	2	20
433	19	11	25	2	57
435	4	1	4	0	9
440	10	8	10	3	31
442	15	10	25	8	58
443	6	7	15	1	29
446	0	7	27	6	40
447	6	2	8	0	16
448	11	2	15	2	30

Table 47. (continued)

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
449	10	7	9	6	32
450	0	2	2	0	4
451	11	3	20	2	36
452	12	3	26	2	43
453	10	7	11	1	29
454	21	3	24	1	49
455	2	1	5	0	8
456	14	2	16	0	32
457	3	1	14	2	20
458	5	1	22	2	30
459	13	7	28	4	52
461	9	5	13	0	27
462	8	5	29	7	49
463	3	2	1	1	7
464	0	0	4	1	5
465	7	3	13	1	24
466	11	5	28	5	49
467	25	16	52	9	102
913	0	0	3	0	3
932	0	1	6	2	9
933	0	1	1	0	2
934	0	1	0	1	2
935	0	4	4	1	9
936	3	3	9	4	19
937	0	5	15	8	28
Grand Total	792	523	1,846	344	3,505

Table 48. Muzzleloader Special Permit Area Data, 2002.

Area	Dates	Permits Issued	Harvest				Total
		Regular	Adult male	Fawn male	Adult female	Fawn female	
Jay Cooke S.P. (931 ¹)	12/07-12/11	35 ^{a, b}	0	0	3	0	3
Jay Cooke S.P. (932 ²)	12/07-12/11	55 ^{a, b}	0	1	6	2	9
Sibley S.P. (933)	11/30-12/03	50 ^a	0	1	1	0	2
Crow Wing S.P. (934)	12/06-12/08	40 ^{b, c}	0	1	0	1	2
Savanna Portage S.P.(935)	11/30-12/04	25 ^{a, b}	0	4	4	1	9
Afton S.P. (936)	12/02-12/04	50 ^{b, c, d}	3	3	9	4	19
Lake Shetek S.P. (937)	12/02-12/04	20 ^{a, b}	0	5	15	8	28

^a Permits for these hunts were antlerless only.

^b Management permits were available for these hunts.

^c Either sex.

^d Intensive Harvest permits were available for this hunt.

¹ North of St. Louis river.

² South of St. Louis river.

Table 49. (Continued)

Zone 4											
Permit Area	Adult Males	Fawn Males	Adult Females	Fawn Females	Total	Permit Area	Adult Males	Fawn Males	Adult Females	Fawn Females	Total
401	17	1	3	3	24	440	35	8	31	7	81
402	25	3	12	1	41	442	111	13	67	11	202
403	20	0	14	3	37	443	55	11	36	6	108
404	30	2	17	1	50	446	23	5	28	7	63
405	25	0	4	2	31	447	32	3	26	6	67
406	22	1	19	2	44	448	23	4	18	5	50
407	38	4	25	0	67	449	51	3	38	5	97
408	24	5	11	1	41	450	21	2	11	1	35
409	84	6	41	8	139	451	38	4	18	4	64
410	110	16	54	9	189	452	26	4	23	1	54
411	93	24	58	17	192	453	44	5	26	4	79
412	69	18	45	12	144	454	60	17	56	4	137
413	104	25	63	17	209	455	11	1	2	0	14
414	106	15	58	16	195	456	61	10	42	3	116
415	90	14	76	14	194	457	35	7	20	1	63
416	56	15	52	11	134	458	30	4	23	7	64
417	162	36	133	11	342	459	74	12	42	1	129
418	75	20	56	10	161	461	55	8	40	5	108
419	48	13	36	13	110	462	50	12	23	4	89
420	37	13	16	5	71	463	40	7	24	1	72
421	13	2	6	6	27	464	26	13	15	3	57
422	18	3	12	3	36	465	39	8	18	4	69
423	14	1	13	1	29	466	76	13	45	5	139
424	44	7	17	1	69	467	30	2	30	4	66
425	15	4	7	1	27	Zone 4 Total	2,677	458	1,730	298	5,163
426	34	5	20	3	62						
427	39	2	13	4	58						
428	47	6	33	4	90	GRAND TOTAL	5,597	894	3,389	575	10,455
429	40	0	12	2	54						
431	30	3	27	6	66						
433	54	9	45	10	118						
435	48	9	30	2	89						

Table 50. Black bear registered harvest and hunter success, 1993 - 2002.

Quota Area	Harvest (success rate)									
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
12	90(27%)	130(34%)	229(49%)	114(23%)	163(34%)	170(30%)	142(24%)	186(32%)	263(44%)	104 (22%)
13	98(32%)	108(34%)	258(59%)	96(22%)	125(35%)	216(31%)	134(17%)	211(26%)	241(31%)	116 (19%)
22	26(13%)	33(16%)	29(14%)	5(2%)	21(16%)	8(6%)	10(8%)	4(3%)	6 (7%)	7 (8%)
24	199(32%)	176(26%)	288(32%)	93(10%)	251(29%)	274(26%)	257(24%)	168(15%)	273(28%)	101 (15%)
25	248(33%)	199(27%)	489(40%)	149(12%)	357(35%)	419(27%)	443(24%)	387(19%)	584(34%)	328 (23%)
26	330(39%)	260(30%)	513(59%)	131(15%)	311(38%)	373(38%)	371(32%)	284(23%)	397(32%)	171 (17%)
31	342(34%)	260(27%)	636(47%)	188(13%)	402(38%)	544(28%)	483(23%)	413(19%)	697(34%)	301 (17%)
41	85(28%)	92(31%)	148(50%)	38(13%)	88(32%)	120(25%)	92(14%)	171(34%)	201(40%)	51 (14%)
44	539(37%)	294(24%)	643(43%)	231(16%)	357(24%)	563(25%)	435(18%)	556(22%)	553(23%)	183 (9%)
45		91(14%)	173(24%)	106(13%)	143(18%)	170(15%)	153(10%)	150(9%)	178(13%)	36 (4%)
51	585(35%)	432(23%)	872(37%)	431(18%)	605(25%)	812(19%)	739(18%)	795(19%)	895(24%)	300 (9%)
No Quota	435(29%)	254(17%)	678(35%)	292(16%)	389(22%)	441(25%)	361(20%)	573(25%)	648(23%)	217 (10%)
Total	3,003 (35%)	2,329 (26%)	4,956 (43%)	1,874 (16%)	3,212 (31%)	4,110 (28%)	3,620 (23%)	3,898 (23%)	4,936 (27%)	1,915 (13%)

Table 51. Minnesota bear permits, licenses, hunters, harvests, and success rates during 1991-2002.

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Permit applications	25,890	26,428	27,365	30,127	29,922	30,405	27,353	30,245	29,384	29,275	26,824	21,886
Permits available	7,140	7,920	8,630	9,400	11,950	12,030	11,370	18,210	20,840	20,710	20,710	20,610
Licenses purchased:												
Quota area	6,257	6,845	7,528	8,125	10,304	10,592	9,655	14,941	16,563	17,021	13,867	12,559
No-quota area	1,500	1,640	1,696	1,701	2,144	1,822	1,785	1,796	1,792	2,283	2,643	2,080
% Permit-holders buying license ^a	87.6	86.4	87.2	86.4	86.2	88.0	84.9	82.0 ^a	79.5 ^a	82.2 ^a	67.0 ^a	60.9 ^a
Estimated number of hunters ^b	7,200	7,900	8,600	9,100	11,600	11,500	10,300	14,500	15,900	16,800	15,500	13,700
Harvest	2,143	3,175	3,003	2,329	4,956	1,874	3,212	4,110	3,620	3,898	4,936	1,915
% Success rate ^c	30	40	35	26	43 ^c	16 ^d	31	28	23	23	29 ^e	14 ^e

^a Licenses bought / permits available. The low rate in later years was due to undersubscription of permits in some areas. Based on just the number of permit-holders (rather than the number of permits available), 84.8% (1998), 82.7% (1999), 83.9% (2000), 69.8% (2001), and 66.3 % (2002) of hunters that were drawn bought licenses in these years.

^b Number of licensed hunters x percent of license-holders hunting. Percent hunting based on data from bear hunter surveys in 1981-91 and 1998 and 2001. Percent hunting is based on data from bear hunter surveys conducted during 1981-91, 1998, and 2001. Decline in percent hunting follows decline in percent of permit-holders buying a license.

^c Highest hunting success ever, due to poor natural food.

^d Lowest hunting success since initiation of the permit system, due to exceptionally abundant food.

^e Success rates in 2001 and 2002 were calculated using the number of successful hunters, rather than the total number of bears killed, because hunters could take 2 bears (2001 statewide, 4936 bears taken by 4456 successful hunters; in the quota area, 3859 hunters were successful; 2002: statewide 1915 bears were taken by 1900 successful hunters; all 15 second bears taken in the no-quota area).

Table 52. Success rates of Minnesota bear hunters as measured by registered harvest / licenses sold, 1990-2002.

Area	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
12	29	32	36	27	34	49	23	34	30	24	32	44	22
13	37	34	36	32	34	59	22	35	31	17	26	31	19
22	13	18	21	13	16	14	2	16	6	8	3	7	8
24	30	34	45	32	26	32	10	29	26	24	15	28	15
25	32	39	47	33	27	40	12	35	27	24	19	34	23
26	40	38	40	39	30	59	15	38	38	32	23	32	17
31	38	39	55	34	27	47	13	38	28	23	19	34	17
41	39	23	28	28	31	50	13	32	25	14	34	40	14
44					24	43	16	24	25	18	22	23	9
45	34	24	36	37									
					14	24	13	18	15	10	9	13	4
51	39	20	37	35	23	37	18	25	19	18	19	24	9
No Quota Areas	28	19	27	29	17	35	16	22	25	20	25	23	10

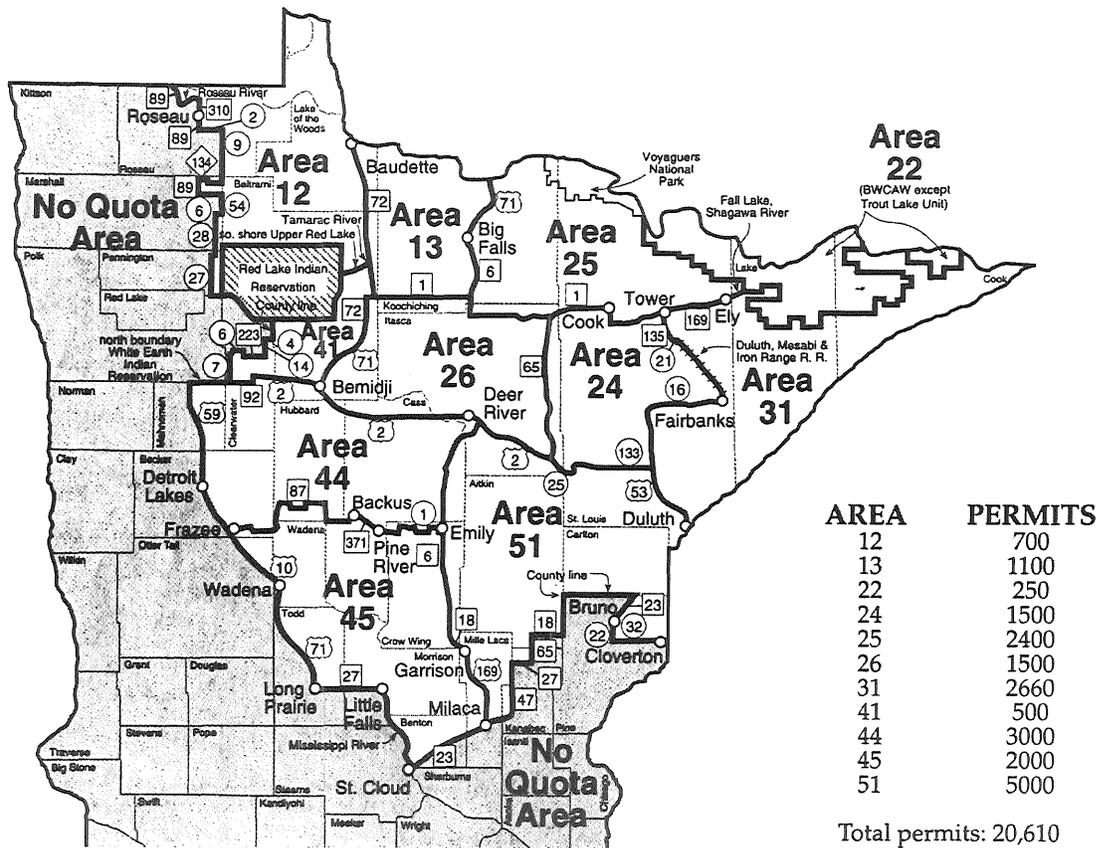


Figure 55. Black bear permit areas, 2002.

Table 53. Moose hunt quota and harvest statistics, 1985-2002.

Year	Area	Number of 2, 3, or 4-person licenses issued	Number of 2, 3, or 4-person license applications	Chances for permit	Harvest	Party success (%)	Sex of Moose	
							Male	Female
1985	NW	768	14,772	1:14	718	93	419 (58%)	299 (42%)
	NE	300						
1987	NW	772	14,234	1:11	727	94	505 (69%)	222 (31%)
	NE	528						
1989	NW	449	15,381	1:15	438	98	291 (66%)	147 (34%)
	NE	545						
1991	NW	365	5,665	1:16	359	98	258 (72%)	101 (28%)
	NE	0						
1993	NW	446	9,925	1:13	419	94	317 (76%)	102 (24%)
	NE	315						
1994	NW	262	11,351	1:25	245	93	166 (65%)	77 (32%)
	NE	189						
1995	NW	191	10,753	1:28	172	90	112 (65%)	60 (35%)
	NE	188						
1996	NW	39	6,550	1:27	38	97	31 (82%)	7 (18%)
	NE	207						
1997	NW	0	3,958	1:20	152	77	124 (82%)	28 (28%)
	NE	198						
1998	NW	0	4,157	1:23	125	69	90 (72%)	36 (28%)
	NE	182						
1999	NW	0	3,919	1:21	136	72	101 (74%)	35 (26%)
	NE	189						
2000	NW NE	Cancelled	Cancelled	Cancelled	Cancelled	Cancelled	Cancelled	Cancelled
2001	NW	0	3,164	1:18	125	69	108 (86%)	17 (14%)
	NE	176						
2002	NW	0	4,327	1:21	141	68	118 (84%)	23 (16%)
	NE	208						

TRAPPING HARVEST STATISTICS
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Table 54. Trapper response to mail surveys, 1979-80 through 2002-03.

Year	Number mailed	Number not delivered	Delivered questionnaires <u>completed and returned</u>	
			Number	Percent
1979-80	1,011	29	888	90.4
1980-81	1,345	110	1,072	86.8
1981-82	1,345	36	1,167	89.2
1982-83	925	28	794	88.5
1983-84	770	10	663	87.2
1984-85	556	9	495	90.5
1985-86	581	13	506	89.1
1986-87	582	8	514	89.5
1987-88	721	11	607	85.5
1988-89	852	25	727	87.9
1989-90	3,302	120	2,804	88.1
1990-91	2,294	102	1,875	85.5
1991-92	2,643	149	2,062	82.7
1992-93	2,080	76	1,681	83.9
1993-94	2,828	100	2,194	80.4
1994-95	2,382	76	1,876	81.5
1995-96	3,244	118	2,467	80.3
1996-97	4,071	132	3,017	76.6
1997-98	3,500	96	2,629	77.2
1998-99	3,900	117	2,878	76.4
1999-00	3,110	74	2,313	76.2
2000-01	5,262	146	3,941	77.0
2001-02	5,482	127	4,132	78.6
2002-03	5,655	210	4,148	76.0

Table 55. Use of trapper licenses, 1989-90 through 2002-03.

		Return from mail survey	Projections from license sales
1989-90	Trapped	2,251 (80.3%)	7,314
	Did not trap	<u>553 (19.7%)</u>	<u>1,794</u>
		2,804 (100.0%)	9,108
1990-91	Trapped	1,399 (80.6%)	4,972
	Did not trap	<u>337 (19.4%)</u>	<u>1,197</u>
		1,736 (100.0%)	6,169 ^a
1991-92	Trapped	1,639 (79.5%)	4,150
	Did not trap	<u>423 (20.5%)</u>	<u>1,070</u>
		2,062 (100.0%)	5,220 ^a
1992-93	Trapped	1,438 (85.5%)	4,927
	Did not trap	<u>243 (14.5%)</u>	<u>836</u>
		1,681 (100.0%)	5,763 ^a
1993-94	Trapped	1,904 (85.5%)	4,862
	Did not trap	<u>290 (13.2%)</u>	<u>739</u>
		2,194 (100.0%)	5,601 ^a
1994-95	Trapped	1,647 (87.8%)	6,054
	Did not trap	<u>228 (12.2%)</u>	<u>841</u>
		1,875 (100.0%)	6,895 ^a
1995-96	Trapped	2,053 (83.2%)	4,684
	Did not trap	<u>414 (16.8%)</u>	<u>946</u>
		2,467 (100.0%)	5,630 ^a
1996-97	Trapped	2,505 (84.8%)	5,660
	Did not trap	<u>450 (15.2%)</u>	<u>1,015</u>
		2,955 (100.0%)	6,675 ^a
1997-98	Trapped	2,310 (88.6%)	6,198
	Did not trap	<u>296 (11.4%)</u>	<u>798</u>
		2606 (100.0%)	6,996 ^a
1998-99	Trapped	2,398 (88.6%)	5,541
	Did not trap	<u>480 (16.7%)</u>	<u>1,111</u>
		2,878 (100.0%)	6,652 ^a
1999-00	Trapped	1,927 (83.5%)	4,122
	Did not trap	<u>381 (16.5%)</u>	<u>814</u>
		2,308 (100.0%)	4,936 ^a
2000-01	Trapped	2,897 (75.9%)	4,051
	Did not trap	<u>920 (24.1%)</u>	<u>1,286</u>
		3,817 (100.0%)	5,337 ^a
2001-02	Trapped	3,332 (81.5%)	4,510
	Did not trap	<u>754 (18.5%)</u>	<u>1,024</u>
		4,086 (100.0%)	5,534 ^a
2002-03	Trapped	3,344 (80.6%)	4,615
	Did not trap	<u>804 (19.4%)</u>	<u>1,111</u>
		4,148 (100.0%)	5,726 ^a

^a excludes duplicates.

Table 56. Estimated number of trappers of various furbearers, 1988-89 through 2002-03.

Estimated number of trappers (thousands)															
	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Muskrat	7	4	2	2	3	3	4	3	4	4	3	2	2	2	2
Mink	7	5	3	2	3	3	3	2	3	3	3	2	2	2	2
Short-tailed weasel	1	<1	<1	<1	<1	<1	1	<1	<1	1	<1	<1	<1	<1	<1
Long-tailed weasel	1	1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1
Raccoon (Sept 02-Feb 03)	6	4	2	2	2	3	3	2	3	3	3	2	2	2	2
Raccoon (Mar 02-Aug 02) ^a							<1	<1	<1	<1	<1	<1	<1	<1	<1
Striped skunk	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Eastern spotted skunk	<1	<1	<1	<1	<1	<1	<1	<1	Closed						
Badger	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Opossum	1	1	1	1	1	1	1	1	1	1	1	<1	<1	1	1
Red fox (Sept 02-Feb 03)	4	2	2	2	2	2	2	2	2	2	1	1	1	1	1
Red fox (Mar 02-Aug 02) ^a							<1	<1	<1	<1	<1	<1	<1	<1	<1
Gray fox	1	1	<1	<1	<1	<1	<1	<1	n.a.	<1	<1	<1	<1	<1	<1
Coyote	1	1	1	1	1	1	1	1	1	1	1	1	<1	1	1
Beaver (Oct 02- Feb 03)	4	3	2	2	2	2	3	2	2	3	3	2	2	2	2
Beaver (Mar 02- Apr 02)	2	2	1	1	1	1	2	1	2	2	2	1	1	1	1

^a Raccoon and red fox season changed to year round beginning May, 1994.

Table 57. Estimated take per trapper of various furbearers, 1988-89 through 2002-2003.

	Estimated take per successful trapper reporting that species														
	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Muskrat	28	27	24	20	36	64	90	70	55	58	42	46	42	42	35
Mink	9	9	10	8	12	12	12	11	11	11	13	14	12	14	10
Short-tailed weasel	4	5	3	4	5	6	12	10	9	10	7	5	8	10	7
Long-tailed weasel	5	5	3	5	4	4	6	5	5	5	5	5	5	7	4
Raccoon (Sept 02-Feb 03)	13	12	16	14	16	5	20	23	23	24	23	20	20	27	25
Raccoon (Mar 02-Aug 02) ^a							15	15	13	14	15	14	11	19	12
Striped skunk	10	10	12	9	8	9	8	8	10	10	9	8	8	8	8
Eastern spotted skunk	2	5	7	3	2	6	4	5	Closed						
Badger	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Opossum	8	9	11	9	10	8	9	9	9	9	11	13	11	8	11
Red fox (Sept 02-Feb 03)	13	10	18	14	11	11	11	9	7	7	5	6	6	6	6
Red fox (Mar 02-Aug 02) ^a							9	5	4	4	3	4	4	5	5
Gray fox	4	3	3	2	4	3	2	2	n.a.	3	3	2	2	2	2
Coyote	4	4	3	4	5	5	4	5	4	3	3	4	4	4	4
Beaver (Oct 02-Feb 03)	11	15	13	15	13	16	18	14	16	16	16	16	15	18	13
Beaver (Mar 02 - Apr 02)	14	20	19	27	29	29	37	29	31	32	29	27	26	31	26

^a Raccoon and red fox season changed to year round beginning May, 1994.

Table 58. Minnesota trapper license sales and estimated annual harvest, 1989-90 through 2002-2003^a

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Trapper license sales ^b	9,108	6,163	5,220	5,763	5,601	6,895	5,630	6,675	6,996	6,652	4,936	5,337	5,534	5,725
Estimated harvest ^c (thousands)														
Muskrat	118	55	45	92	202	355	195	202	194	131	97	86	101	75
Mink	40	25	21	32	33	40	26	35	34	36	27	23	29	20
Short-tailed weasel	2	1	1	1	2	6	4	4	4	2	2	3	4	3
Long-tailed weasel	2	1	1	1	1	3	2	2	2	2	2	1	2	1
Raccoon (Sept 02- Feb 03)	41	34	31	34	56	58	53	69	66	64	37	32	60	61
Raccoon (Mar 02-Aug 02) ^f						1	5	5	5	7	4	4	6	4
Striped skunk	17	15	10	7	9	9	8	11	11	9	5	5	7	8
Eastern spotted skunk ^g	<1	<1	<1	<1	<1	<1	<1	Closed						
Badger	1	1	1	1	1	1	<1	1	1	<1	<1	<1	<1	<1
Opossum	6	6	5	6	5	5	6	6	6	7	6	5	5	8
Red fox (Sept 02- Feb 03)	25	33	25	23	22	24	14	13	12	6	7	6	7	8
Red fox (Mar 02-Aug 02) ^f						1	1	1	1	<1	<1	<1	<1	1
Gray fox	2	1	1	1	1	1	1	n.a.	1	1	1	<1	1	1
Coyote	4	3	3	4	4	5	3	3	3	2	2	2	2	4
Beaver (Oct 02- Feb 03)	48	24	25	22	29	49	25	38	36	39	31	25	36	24
Beaver (Mar 02-Apr 02)	31	20	26	34	32	64	41	48	47	55	36	37	42	34
Registered harvest														
Otter	1,294	88	855	1,368	1,459	2,445	1,435	2,219	2,145	1,946	1,635	1,578	2,301	2,145
Lynx ^g	Closed													
Bobcat ^e	129	84	106	168	201	238	134	223	359	103	206	231	250	544
Fisher	1,243	746	528	778	1,159	1,771	942	1,773	2,761	2,695	1,725	1,674	2,119	2,660
Marten	2,119	1,349	656	1,602	1,438	1,527	1,500	1,625	2,261	2,299	2,423	1,629	1,928	2,839

^a Includes data for all seasons from October through April of years indicated.

^b Separate licenses were issued for juveniles (13-17 years old) and adults (18 and older), beginning in 1982. As of March 3, 2003 5,725 trapping licenses were sold in 2002 608 (10.6%) were juvenile licenses and 5,117 (89.4%) were adult licenses. Duplicate licenses excluded.

^c Based upon trappers' responses to mail surveys.

^d 1 is any number which rounds to 1. <1 is any number which is <0.5.

^e Registered harvest for bobcat includes animals taken by hunting.

^f Raccoon and red fox seasons changed to year round beginning May 1994.

^g Lynx (1984) and Eastern spotted skunk (1996) listed as Special Concern and threatened species (respectively) and are fully protected.

Table 59. Average price per pelt paid to hunters and trappers in Minnesota, 1989-90 through 2002-03.

Species	Average pelt prices paid hunters and trappers in Minnesota (dollars)													
	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Muskrat	0.80	0.75	1.55	1.35	1.35	1.61	1.53	3.49	2.24	1.11	1.57	1.83	2.32	2.11
Mink (male)	30.38	23.06	27.30	24.74	21.89	14.90	11.75	20.82	13.52	9.83	11.61	11.15	9.34	9.55
Mink (female)	17.26	14.73	17.36	15.02	12.18	11.43	8.56	13.71	9.65	6.11	8.22	7.70	6.76	6.52
S.T. Weasel	1.20	1.55	0.77	1.31	1.72	1.73	1.84	2.32	2.33	1.72	2.16	2.30	2.41	2.63
L.T. Weasel	1.25	0.58	1.21	1.06	1.05	2.05	1.24	3.33	2.67	2.05	2.34	1.80	2.98	1.94
Raccoon	4.88	4.19	8.57	7.29	8.26	9.02	9.40	15.16	13.92	7.25	5.09	8.86	9.53	10.33
Striped Skunk	1.31	1.84	1.47	2.69	3.70	3.52	3.21	2.11	3.18	4.72	4.40	4.79	3.91	5.81
Badger	2.91	4.33	3.51	4.20	4.62	6.12	6.33	8.49	6.53	6.30	7.30	10.15	9.39	13.18
Opossum	0.76	3.51	0.96	0.78	0.89	0.98	0.97	1.04	1.10	0.58	0.96	0.97	1.19	1.22
Red Fox	8.58	7.17	10.81	8.88	10.59	13.42	14.21	14.81	11.23	8.04	11.82	14.45	17.07	22.08
Gray Fox	7.39	5.16	5.22	6.73	6.55	9.69	7.49	9.00	7.69	5.63	7.06	7.52	8.36	9.05
Coyote	6.42	8.95	14.85	15.55	14.68	13.55	10.89	12.25	10.12	5.57	9.42	12.40	13.37	16.12
Lynx	-----No Open Season-----													
Bobcat	48.50	42.50	37.44	28.18	43.42	36.36	31.81	32.82	30.39	27.66	24.23	33.09	46.00	71.54
Beaver (fall-winter)	12.49	9.44	9.00	7.10	11.24	13.80	12.56	19.24	16.48	11.40	11.51	14.66	12.74	10.05
Beaver (spring)	10.99	9.66	9.25	7.89	9.41	14.48	10.96	19.14	17.39	14.06	11.02	12.80	12.47	9.99
Otter	22.01	24.21	24.74	29.90	43.14	47.50	38.76	38.75	39.81	34.03	41.41	50.52	46.19	61.16
Fisher (male)	26.15	34.85	21.46	15.73	14.17	19.06	16.17	25.48	31.09	18.92	19.45	20.14	23.18	26.70
Fisher (female)	52.92	46.25	47.93	28.79	28.40	29.93	24.90	34.47	33.65	21.76	19.91	19.01	22.86	25.44
Marten (male)	47.90	43.89	39.59	27.87	35.86	34.07	28.30	34.47	27.82	19.70	24.89	27.56	24.10	28.00
Marten (female)	46.88	40.84	27.24	24.96	29.58	28.34	21.42	29.26	21.79	16.12	21.27	21.25	22.52	27.30

REGISTERED FURBEARER HARVEST STATISTICS
Forest Wildlife Populations and Research Group
1201 E. Hwy 2
Grand Rapids, MN 55744
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Table 60. Registered furbearer harvests and total permits issued, 1985-2002^a.

Year	Bobcat		Fisher		Marten		Otter	
	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest
1985	--	119	--	678	746	430	--	559
1986	--	160	3,302	1,607	2,171	798	3,198	777
1987	--	214	4,952	1,642	3,025	1,363	4,708	1,386
1988	--	140	4,419	1,025	3,369	2,072	4,070	922
1989	--	129	3,712	1,243	3,074	2,119	3,549	1,294
1990	--	84	2,385	746	2,090	1,349	2,199	888
1991 ^b	--	106	2,360	528	2,020	686	2,282	855
1992 ^b	--	168	2,420	778	2,050	1,602	3,440	1,368
1993 ^b	--	201	2,299	1,159	1,925	1,438	2,254	1,459
1994 ^b	--	238	2,186	1,771	2,477	1,527	2,964	2,445
1995 ^b	--	134	2,520	942	2,268	1,500	2,579	1,435
1996 ^b	--	223	1,557	1,773	1,392	1,625	1,623	2,219
1997 ^b	--	359	2,517	2,761	2,517	2,261	2,543	2,145
1998 ^b	--	103	2,808	2,695	2,808	2,299	2,749	1,946
1999 ^b	--	206	1,984	1,725	1,984	2,423	1,918	1,635
2000 ^b	--	231	3,226	1,674	3,226	1,629	3,116	1,578
2001 ^{b,c}	--	250	--	2,119	--	1,928	--	2,301
2002 ^{b,c}	--	544	--	2,660	--	2,839	--	2,145

^a Prior request tags and permits were required beginning in 1985 for marten and in 1986 for fisher and otter.

No possession tags or permits are required for bobcat.

^b Confiscation and 1854 Authority removed.

^c Prior request tags and permits were not required for fisher, marten, or otter in 2001-02 and 2002-03.

Table 61. Time distribution of bobcat harvest by 5-day increments, 2002-2003 season.

Interval	Sex			Total	% of Known Total	Cumulative Percent
	M	F	U			
Dec. 1- 5	45	42	-	87	16	16
Dec. 6 - 10	50	47	-	97	18	34
Dec. 11- 15	50	47	-	97	18	52
Dec. 16 - 20	25	23	-	48	9	61
Dec. 21 - 25	23	21	-	44	8	69
Dec. 26 - 30	34	32	-	66	12	81
Dec. 31 - Jan. 5*	38	35	-	73	13	94
Unknown	17	15	-	32	6	100
Total	282	262	-	544	100	100

* 6 day interval

Table 62. Distribution of bobcat harvest among takers, 1984-85 thru 2002-03.

Number of Takers	Number Taken (%)					
	1	2	3	4	5	Total
1984-85	116 (65.2)	39 (21.9)	13 (7.3)	9 (5.1)	1 (0.5)	178
1985-86	70 (78.7)	11 (12.4)	6 (6.7)	1 (1.1)	1 (1.1)	89
1986-87	92 (76.7)	18 (15.0)	9 (7.5)	0 (0.0)	1 (0.8)	120
1987-88	104 (71.7)	23 (15.9)	10 (6.9)	6 (4.1)	2 (1.4)	145
1988-89	88 (81.5)	11 (10.2)	7 (6.5)	1 (0.9)	1 (0.9)	108
1989-90	56 (69.1)	13 (16.0)	5 (6.2)	3 (3.7)	4 (4.9)	81
1990-91	47 (77.0)	9 (14.7)	1 (1.6)	4 (6.5)	0 (0.0)	61
1991-92	42 (63.6)	15 (22.7)	4 (6.1)	3 (4.5)	2 (3.0)	66
1992-93	69 (64)	21 (20)	9 (9)	5 (5)	2 (2)	106
1993-94	90 (70)	17 (13)	13 (10)	7 (5)	2 (2)	201
1994-95	103 (68)	25 (17)	12 (8)	6 (4)	5 (3)	151
1995-96	67 (74)	13 (14)	5 (6)	4 (4)	2 (2)	91
1996-97	115 (73)	28 (18)	85 (5)	2 (1)	4 (3)	157
1997-98	129 (61)	43 (20)	17 (8)	12 (6)	9 (5)	210
1998-99	59 (77)	11 (14)	2 (3)	3 (4)	1 (2)	76
1999-00	113 (76)	21 (14)	10 (6)	4 (3)	1(1)	149
2000-01	99(69)	23 (16)	7 (5)	5 (4)	9 (6)	143
2001-02	101 (71)	23 (16)	12 (8)	1 (1)	5 (4)	142
2002-03	185 (60)	64 (21)	33 (10)	15 (5)	12 (4)	309

Table 63. Bobcat harvest by method of take, 1982-2002.

Year	Total Harvest ^a	Trapping				Hunting			
		Harvest	(% of Total)	Takers ^b	Average Take ^b	Harvest	(% of Total)	Takers ^b	Average Take ^b
1982	274	239	(87)	147	1.6	35	(13)	23	1.5
1983	208	168	(81)	118	1.4	40	(19)	32	1.3
1984	280	252	(90)	156	1.6	28	(10)	22	1.3
1985	119	83	(70)	62	1.3	36	(30)	27	1.3
1986	160	119	(74)	89	1.3	41	(26)	31	1.3
1987	214	177	(83)	118	1.5	37	(17)	26	1.4
1988	140	94	(67)	76	1.2	46	(33)	32	1.4
1989	129	90	(70)	49	1.8	39	(31)	28	1.4
1990	84*	61	(73)	43	1.4	22	(26)	17	1.3
1991	106*	59	(56)	31	1.9	43	(41)	33	1.3
1992	168	133	(80)	85	1.6	35	(20)	23	1.5
1993	201	147	(73)	88	1.7	54	(27)	41	1.3
1994	238	189	(80)	120	1.6	49	(21)	31	1.6
1995	134	73	(55)	53	1.4	61	(46)	38	1.6
1996	223	133	(60)	91	1.5	70	(31)	53	1.3
1997	359	313	(87)	176	1.8	44	(13)	34	1.3
1998	103	95	(92)	67	1.4	8	(8)	8	1.0
1999	206	155	(75)	114	1.4	51	(25)	36	1.4
2000	231	140	(61)	85	1.6	91	(39)	58	1.6
2001	250	208	(83)	116	1.5	42	(17)	27	1.3
2002	544	500	(92)	279	1.7	44	(8)	32	1.4

^a Sum of trapping and hunting harvest is not equal to total harvest due to incomplete method of take data.

^b Multiplying # takers and average take may not match total harvest due to incomplete name/license #.

Table 64. Comparison of bobcat harvest by county, 1992-93 through 2002-03.

County	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Aitkin	22	28	14	12	20	19	6	25	32	20	33
Becker	1	1	7	5	4	10	1	8	6	28	26
Beltrami	8	15	23	6	20	37	7	13	16	26	64
Benton	0	0	0	1	0	0	0	0	0	0	0
Carlton	10	5	8	5	14	18	4	10	12	14	10
Cass	27	16	31	10	22	64	16	24	11	17	63
Chisago	0	0	0	0	0	0	0	0	0	0	1
Cleanwater	5	2	7	6	3	14	1	4	0	6	25
Cook	0	1	0	2	0	0	0	0	0	0	1
Crow Wing	6	3	8	5	5	8	15	21	13	4	14
Hubbard	3	2	4	2	4	19	1	7	4	10	31
Isanti	0	0	0	0	0	0	0	2	0	0	0
Itasca	35	39	51	20	51	45	10	23	40	33	73
Kanabec	4	7	3	1	6	13	3	4	11	8	10
Kittson	3	1	3	3	1	0	0	7	6	7	5
Koochiching	5	3	6	1	23	14	2	8	11	12	23
Lake	5	1	0	2	0	0	1	0	1	0	0
Lake of the Woods	0	0	2	0	2	0	2	2	3	0	6
Mahnomen	-	-	-	1	0	2	0	1	1	1	0
Marshall	0	6	4	2	5	28	4	10	2	4	24
Mille Lacs	3	1	5	3	0	0	0	1	2	0	10
Morrison	5	14	5	6	5	1	2	6	8	4	6
Ottertail	0	2	0	0	0	2	0	0	0	1	0
Pennington	0	0	0	0	2	1	0	0	1	1	1
Pine	11	29	26	23	20	23	12	15	21	23	49
Polk	0	0	0	0	1	1	0	0	1	0	3
Red Lake	-	-	-	-	-	-	-	-	2	0	1
Roseau	3	5	9	1	5	15	3	7	12	18	22
St. Louis	8	10	15	7	7	14	10	5	9	7	30
Todd	-	-	-	-	-	-	2	1	0	1	3
Wadena	0	2	0	2	1	5	1	2	0	5	6
Unknown	5	8	7	8	2	4	0	0	4	0	4
Total	168	201	238	134	223	357	103	206	231	250	544

FISHER 2002-2003

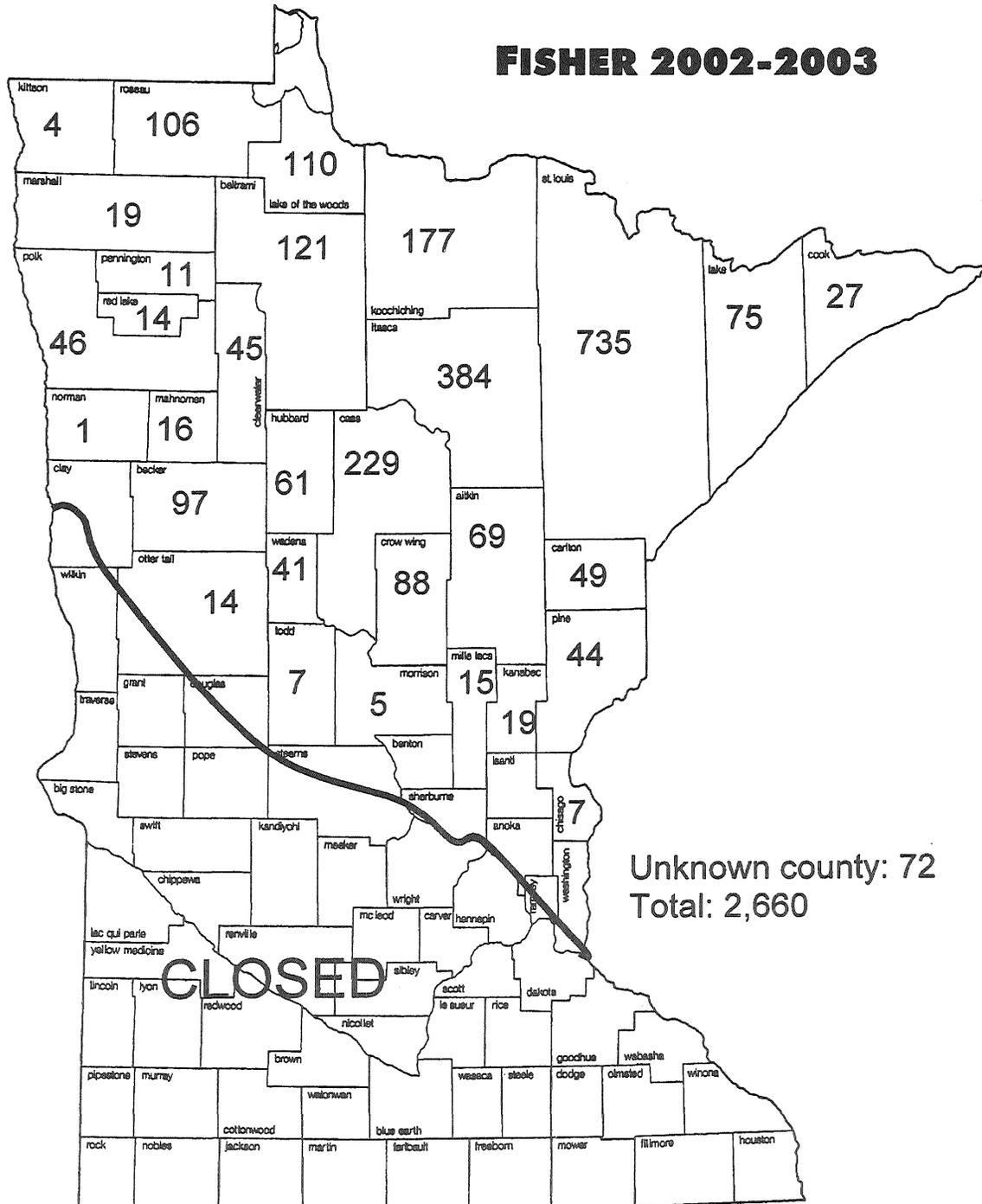


Figure 57. Fisher harvest by county, 2002-2003.

Table 65. Fisher harvest by date and sex, 2002-03 season, in Minnesota.

Date	Sex			Total	% of known Total	Cumulative Percent
	Male	Female	Unknown			
Dec. 1	61	54	0	115	4	5
Dec. 2	109	82	0	191	7	11
Dec. 3	111	86	0	197	7	18
Dec. 4	85	76	0	161	6	24
Dec. 5	71	66	0	137	5	29
Dec. 6	72	67	0	139	5	34
Dec. 7	122	125	3	250	9	43
Dec. 8	92	87	0	179	7	50
Dec. 9	76	52	0	128	5	55
Dec. 10	75	81	1	157	6	61
Dec. 11	70	65	0	135	5	66
Dec. 12	83	72	0	155	6	72
Dec. 13	75	49	0	124	5	77
Dec. 14	63	91	0	154	6	83
Dec. 15	87	76	0	163	6	89
Unknown	161	114	0	275	11	-
Total	1,413	1,243	4	2,660	100	100

Table 66. Fisher harvest by county and sex, 2002-03 season, in Minnesota.

County	Sex			Total
	Male	Female	Unknown	
Aitkin	33	34	0	67
Becker	62	34	0	96
Beltrami	69	45	0	114
Benton	0	0	0	0
Carlton	29	19	0	48
Cass	125	99	1	225
Chisago	1	5	0	6
Clearwater	28	17	0	45
Cook	17	10	0	27
Crow Wing	50	37	0	87
Douglas	0	0	0	0
Hubbard	30	29	0	59
Itasca	185	171	3	359
Kanabec	12	7	0	19
Kittson	2	1	0	3
Koochiching	92	85	0	177
Lake	36	36	0	72
Lake of the Woods	48	67	0	115
Mahnomen	10	6	0	16
Marshall	11	7	0	18
Mille Lacs	8	7	0	15
Morrison	0	5	0	5
Norman	1	0	0	1
Olmsted	1	0	0	1
Ottertail	1	0	0	1
Pennington	1	3	0	4
Pine	26	18	0	45
Polk	30	16	0	46
Red Lake	9	5	0	14
Roseau	61	45	0	106
St. Louis	352	384	0	736
Todd	4	1	0	5
Wadena	26	13	0	39
Unknown	42	30	0	72
Total	1,413	1,242	4	2,660

Table 67. Comparison of fisher harvest by county, 1991-92 through 2002-03.

County	1991- 92	1992- 93	1993- 94	1994- 95	1995- 96	1996- 97	1997- 98	1998- 99	1999- 00	2000- 01	2001- 02	2002- 03
Aitkin	8	15	17	23	26	58	86	105	84	68	103	67
Becker	4	6	4	22	17	15	25	15	32	42	46	96
Beltrami	34	34	44	103	27	84	140	105	70	60	73	114
Carlton	3	8	12	14	14	10	45	25	23	27	37	48
Cass	30	33	57	100	58	142	212	133	123	122	134	225
Chisago								1	0	134	2	6
Clearwater	2	3	3	13	0	6	31	18	13	15	45	45
Cook	4	17	17	16	12	12	24	26	19	19	33	27
Crow Wing	14	18	23	30	24	32	65	75	53	71	82	87
Douglas										1	0	0
Hubbard	6	7	6	8	15	30	66	38	34	34	64	59
Itasca	73	76	177	299	116	291	477	441	248	288	298	359
Kanabec	0	2	0	1	0	6	7	3	11	4	4	19
Kittson	1	0	1	1	0	0	7	3	3	3	7	3
Koochiching	96	97	148	250	92	232	386	369	150	159	156	177
Lake	17	57	82	99	43	60	123	84	46	62	54	72
Lake of the Woods	21	26	8	43	4	30	59	99	83	71	48	115
Mahnomen	0	0	1	1	0	0	0	0	3	0	12	16
Marshall	2	3	7	9	2	4	21	7	10	27	19	18
Mille Lacs						6	0	3	0	4	3	15
Morrison									2	0	1	5
Norman	-----closed-----							0	6	0	0	1
Ottertail								1	0	0	1	12
Pennington	0	0	0	1	0	1	1	0	2	4	4	11
Pine	0	3	17	23	20	24	34	55	36	37	29	45
Polk	0	0	1	2	3	3	6	5	6	8	24	46
Red Lake	1	0	1	0	0	2	5	0	2	18	16	14
Roseau	21	32	68	93	26	89	134	171	111	157	180	106
St. Louis	187	229	463	616	153	604	783	880	546	369	608	736
Todd							2	0	0	0	2	5
Wadena					1	2	10	5	8	0	31	39
Unknown	4	112	2	5	289	30	12	28	2	1	1	72
Total	528	778	1,159	1,771	942	1,773	2,761	2,695	1,725	1,674	2,119	2,660

Table 68. Marten harvest by date and sex, 2002-03 season, in Minnesota.

Date	Sex			Total	% of Known Total	Cumulative Percent
	Male	Female	Unknown			
Dec. 1	203	86	0	289	10	10
Dec. 2	173	79	0	252	9	19
Dec. 3	135	65	0	200	7	26
Dec. 4	142	84	3	229	8	34
Dec. 5	104	61	3	168	6	40
Dec. 6	78	53	0	131	5	45
Dec. 7	137	92	0	229	8	53
Dec. 8	82	60	0	142	5	58
Dec. 9	69	56	0	125	4	62
Dec. 10	90	54	0	144	5	67
Dec. 11	74	35	3	112	4	71
Dec. 12	50	48	3	101	4	75
Dec. 13	44	28	4	76	3	78
Dec. 14	84	48	4	136	5	83
Dec. 15	56	34	1	91	3	86
Dec. 9	36	27	0	63	3	100
Unknown	236	170	8	275	14	-
Total	1,757	1,053	29	2,839	100	100

Table 69. Marten harvest by county and sex, 2002-03 season, in Minnesota.

County	Sex			Total
	Male	Female	Unknown	
Aitkin	3	2	0	5
Beltrami	19	10	0	29
Carlton	1	3	0	4
Cass	0	4	0	4
Cook	136	89	5	230
Crow Wing	0	0	0	0
Itasca	76	52	1	129
Koochiching	322	197	8	527
Lake	322	163	5	490
Lake of the Woods	69	35	0	104
Marshall	1	0	0	1
Pennington	0	0	0	0
Red Lake	0	0	0	0
Roseau	87	29	0	116
St. Louis	712	465	0	1,177
Unknown	6	2	15	23
Total	1,754	1,051	34	2,839

Table 70. Comparison of marten harvest by county in Minnesota, 1991-92 through 2002-03.

County	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Aitkin	Closed	1	2	2	3	5						
Beltrami	0	1	0	1	0	2	12	12	37	2	24	29
Carlton	Closed	3	6	5	11	4						
Cass	Closed	1	2	3	1	4						
Cook	69	180	133	164	156	116	195	208	240	190	164	230
Crow Wing									3	0	0	0
Itasca	12	28	43	41	26	83	164	155	114	82	102	129
Koochiching	115	206	232	313	251	382	597	517	492	306	327	527
Lake	123	357	252	299	252	234	287	284	284	323	243	490
Lake of the Woods	0	0	1	2	0	0	12	26	58	15	13	104
Marshall	Closed	1	1	1	1							
Pennington										2	0	0
Red Lake										3	0	0
Roseau	Closed	41	51	98	48	116						
St. Louis	336	666	771	707	396	797	980	1,020	1,131	596	991	1,177
Unknown	1	164	6	0	419	11	14	31	2	1	0	23
Total	656	1,602	1,438	1,527	1,500	1,625	2,261	2,299	2,423	1,629	1,928	2,839

Table 71. Otter harvest by 5-day interval and sex, 2002-03 season.

Interval	Sex			Total	% of Known Total	Cumulative Percent
	Male	Female	Unknown			
Oct. 27-31	63	45	1	109	5	5
Nov. 1-5	119	92	4	215	10	15
Nov. 6-10	142	86	0	228	11	26
Nov. 11-15	102	74	2	178	8	34
Nov. 16-20	88	75	0	163	8	42
Nov. 21-25	69	43	0	112	5	47
Nov. 26-30	78	60	0	138	6	53
Dec. 1-5	96	66	0	162	8	61
Dec. 6-10	106	60	0	166	8	69
Dec. 11-15	83	66	0	149	7	76
Dec. 16-20	58	54	0	112	5	81
Dec. 21-25	49	52	1	102	5	86
Dec. 26-30	40	40	1	80	4	90
Dec. 31-Jan. 5*	45	30	0	75	3	93
Unknown	91	61	3	155	7	100
Total	1,229	904	12	2,145	100	100

* 6-day interval.

Table 72. Otter harvest by county and sex, 2002-03 season.

County	Sex			Total
	Male	Female	Unknown	
Aitkin	23	14	0	37
Anoka	7	7	0	14
Becker	63	40	1	104
Beltrami	76	52	0	128
Benton	3	3	0	6
Carlton	20	19	0	39
Cass	120	70	0	190
Chisago	12	6	0	18
Clay	5	2	0	7
Clearwater	36	25	0	61
Cook	21	10	0	31
Crow Wing	55	35	0	90
Douglas	0	0	0	0
Hubbard	36	27	1	64
Isanti	21	15	0	36
Itasca	157	142	4	330
Kanabec	20	20	0	40
Kittson	1	0	1	2
Koochiching	60	33	2	95
Lake	34	23	0	57
Lake of the Woods	14	7	0	21
Mahnomen	2	5	0	7
Marshall	18	17	0	35
Mille Lacs	10	11	0	21
Morrison	20	17	0	37
Norman	2	2	0	4
Ottertail	17	15	0	32
Pennington	9	6	0	15
Pine	32	29	0	61
Polk	37	26	0	63
Red Lake	14	10	0	24
Renville	0	0	0	0
Roseau	10	17	0	27
Sibley	0	0	0	0
St. Louis	187	127	0	314
Sherburne	6	5	0	11
Stearns	9	5	0	14
Todd	19	14	0	33
Wadena	13	9	0	22
Washington	6	6	0	12
Wright	0	1	0	1
Unknown	34	32	3	69
Total	1,229	904	12	2,145

Table 73. Comparison of otter harvest by county, 1991-2002.

County	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Aitkin	44	78	70	83	57	78	95	87	103	82	100	37
Anoka	7	14	18	20	13	13	21	23	25	14	17	14
Becker	21	36	38	62	64	54	85	30	64	45	125	104
Beltrami	93	97	91	166	59	133	133	81	103	74	108	128
Benton	1	0	4	5	0	1	4	6	2	7	10	6
Carlton	23	39	38	40	17	33	43	39	45	29	33	39
Cass	67	107	114	184	124	184	189	149	109	107	197	190
Chisago	5	9	17	26	9	13	20	20	13	12	26	18
Clay						2	7	0	7	3	1	7
Clearwater	14	14	27	52	13	57	25	18	29	25	47	61
Cook	30	28	44	53	37	28	29	48	30	26	26	31
Crow Wing	41	83	75	111	59	73	84	81	77	76	96	90
Douglas	-----closed-----				2	5	7	7	1	1	1	0
Hubbard	34	44	30	43	48	89	95	28	23	19	61	64
Isanti	5	10	19	20	10	17	29	26	20	28	33	36
Itasca	110	193	259	432	245	383	371	339	220	296	337	303
Kanabec	11	24	32	57	13	20	43	24	29	32	56	40
Kittson	0	1	0	1	1	0	2	1	0	0	1	2
Koochiching	59	52	65	147	68	139	109	126	63	107	118	95
Lake	21	91	44	76	33	62	57	77	44	70	57	57
Lake of the Woods	21	15	1	20	9	16	24	32	36	18	17	21
Mahnomen	0	0	2	21	18	11	6	9	10	10	17	7
Marshall	2	6	7	13	3	14	14	5	8	16	13	35
Mille Lacs	10	5	16	40	7	27	18	17	15	12	20	21
Morrison	3	16	13	34	12	20	25	18	30	17	45	37
Norman	0	0	0	0	4	3	1	0	2	4	3	4
Ottertail	4	5	10	10	19	14	41	29	20	14	51	32
Pennington	1	0	0	0	0	5	6	2	10	2	6	15
Pine	12	76	52	92	59	72	73	62	21	35	42	61
Polk	12	14	28	33	36	45	35	23	21	34	60	63
Red Lake	5	2	5	8	1	9	9	7	8	22	18	24
Roseau	7	14	11	29	3	24	41	40	37	40	36	27
St. Louis	159	187	286	507	148	473	332	421	353	255	453	314
Sherburne	1	8	7	11	10	12	15	13	14	10	11	11
Stearns	-----closed-----				3	15	15	11	7	5	5	14
Todd	0	0	1	1	19	22	22	23	16	22	24	33
Wadena	7	2	4	3	9	14	8	6	13	3	23	22
Washington	1	3	0	1	0	7	4	6	4	4	4	12
Unknown	24	91	31	44	203	32	8	12	3	2	3	69
Total	855	1,368	1,459	2,445	1,435	2,219	2,145	1,946	1,635	1,578	2,301	2,145