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STATUS OF WILDLIFE POPULATIONS,

FALL 2002

(INCLUDING 1990 - 2001 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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STATUS OF WILDLIFE POPULATIONS, FALL 2002

(Including 1990-2001 Hunting and Trapping Harvest Statistics)



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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 2002
(Including 1990-2001 Hunting and Trapping Harvest Statistics)

This is the 26th 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.

New for this year, August Roadside count formats have changed with the times. We have added a section on the demonstration forest harvest activities.

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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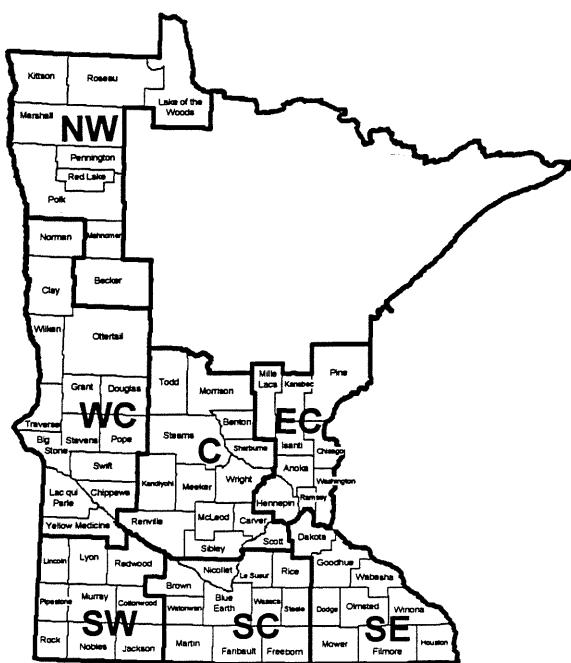
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Madelia, MN 56062
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Pheasants/100 miles

<u>RANGEWIDE</u>	
2001	35
2002	65
1992-2001	47
1955-1964	284
LTA (1955-01)	103

% change from:

2001	86
1992-2001	37
1955-1964	-77
LTA	-37



<u>WEST CENTRAL</u>	
2001	25
2002	66
1992-2001	26
1955-1964	346
LTA (1955-01)	108

CENTRAL

2001	46
2002	47
1992-2001	38
1955-1964	190
LTA (1955-01)	75

EAST CENTRAL

2001	55
2002	26
1992-2001	41
1955-1964	166
LTA (1955-01)	84

% change from:

2001	161
1992-2001	152
1955-1964	-81
LTA	-39

% change from:

2001	2
1992-2001	24
1955-1964	-75
LTA	-37

% change from:

2001	-53
1992-2001	-36
1955-1964	-84
LTA	-69

<u>SOUTHWEST</u>	
2001	49
2002	113
1992-2001	60
1955-1964	356
LTA (1955-01)	109

SOUTH CENTRAL

2001	26
2002	88
1992-2001	69
1955-1964	409
LTA (1955-01)	143

SOUTHEAST

2001	18
2002	41
1992-2001	59
1955-1964	129
LTA (1955-01)	84

% change from:

2001	132
1992-2001	87
1955-1964	-68
LTA	4

% change from:

2001	234
1992-2001	27
1955-1964	-78
LTA	-38

% change from:

2001	132
1992-2001	-32
1955-1964	-68
LTA	-52

Figure 1. Range-wide, regional trends (% change), and long term average (LTA) in total pheasants observed per 100 miles driven, Minnesota August roadside survey, 1955-2001. 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).

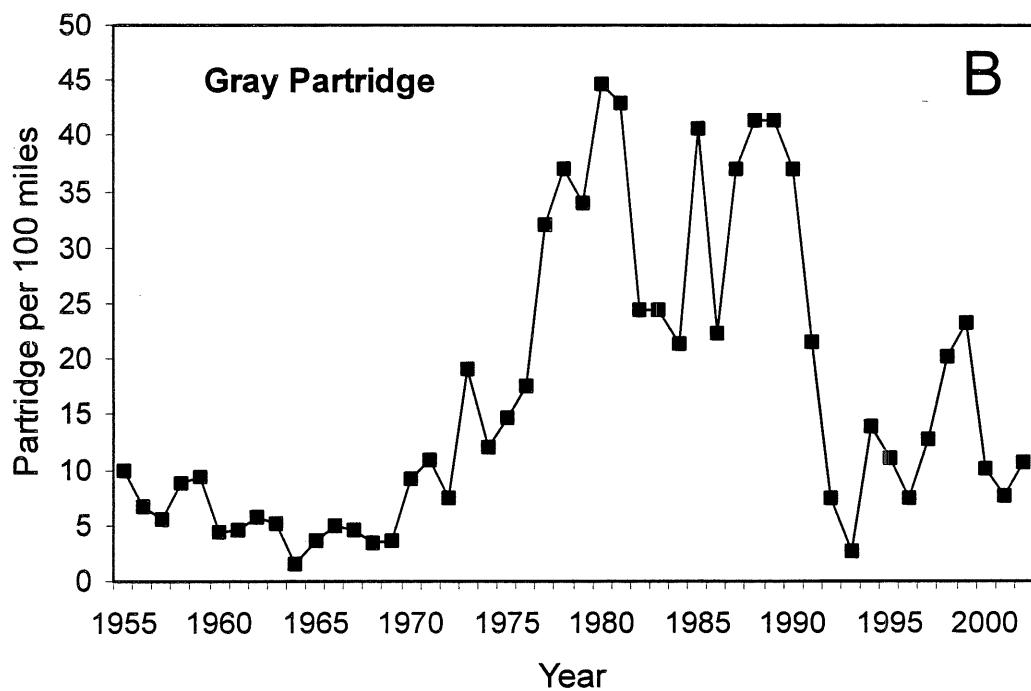
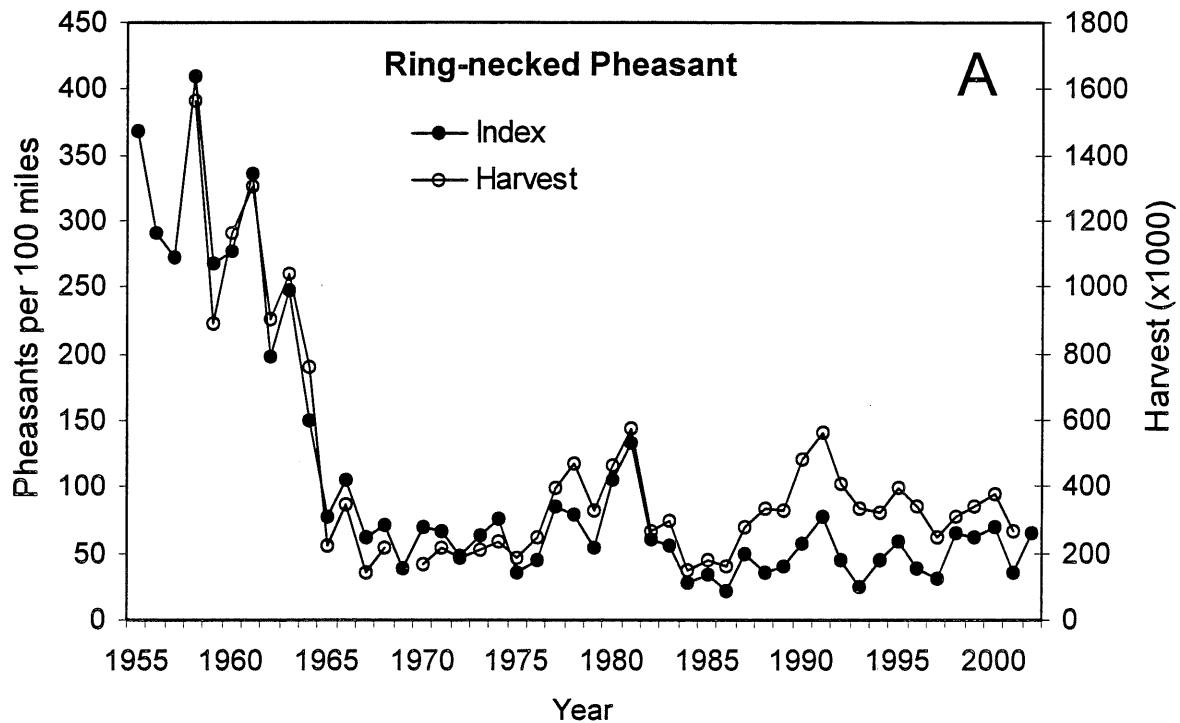


Figure 2. Statewide index of ring-necked pheasants (A) and gray partridge (B) seen per 100 miles driven, 1955-present. Does not include the Northwest region.

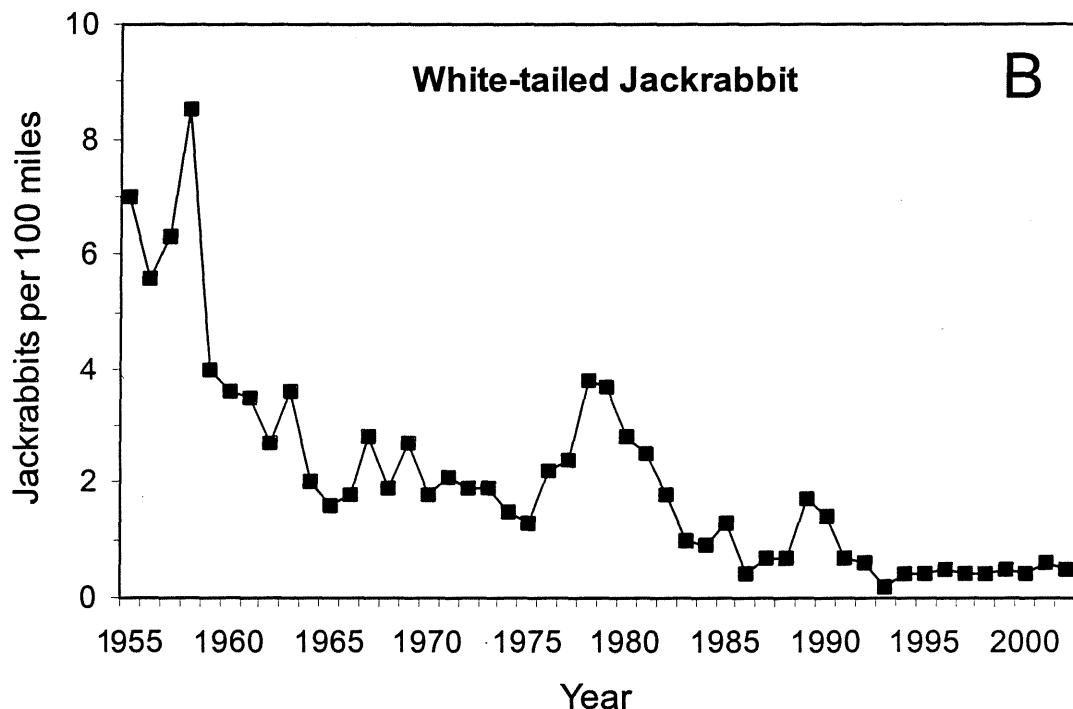
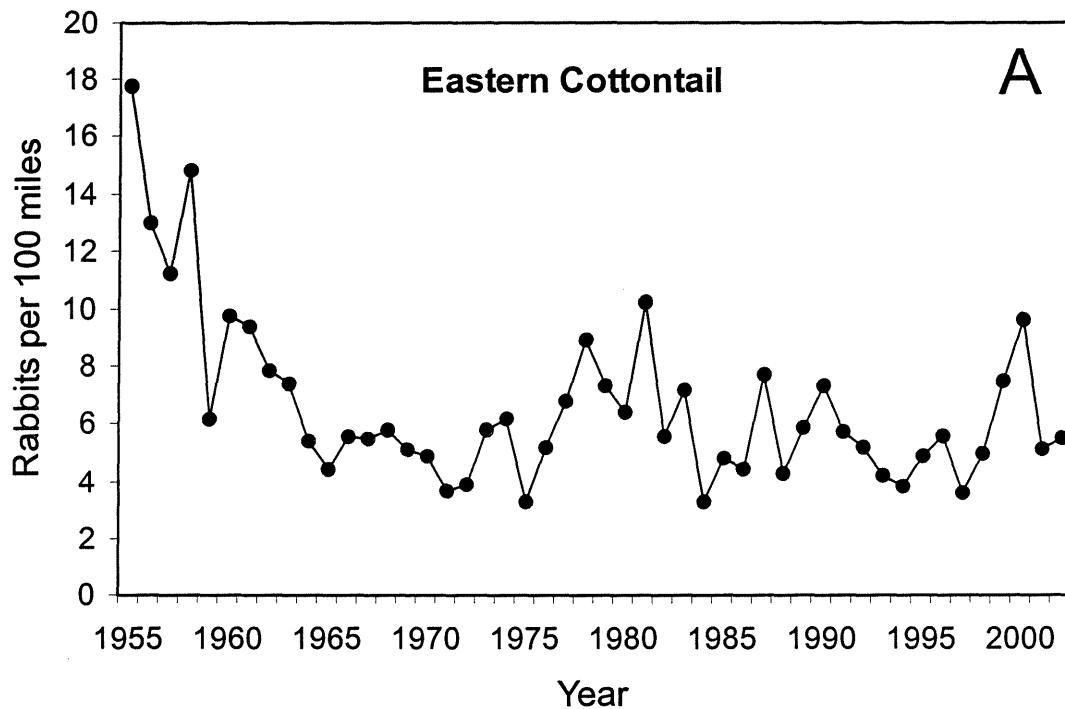


Figure 3. Statewide index of Eastern cottontail (A) and white-tailed jackrabbits (B) seen per 100 miles driven, 1955-present. Does not include the Northwest region.

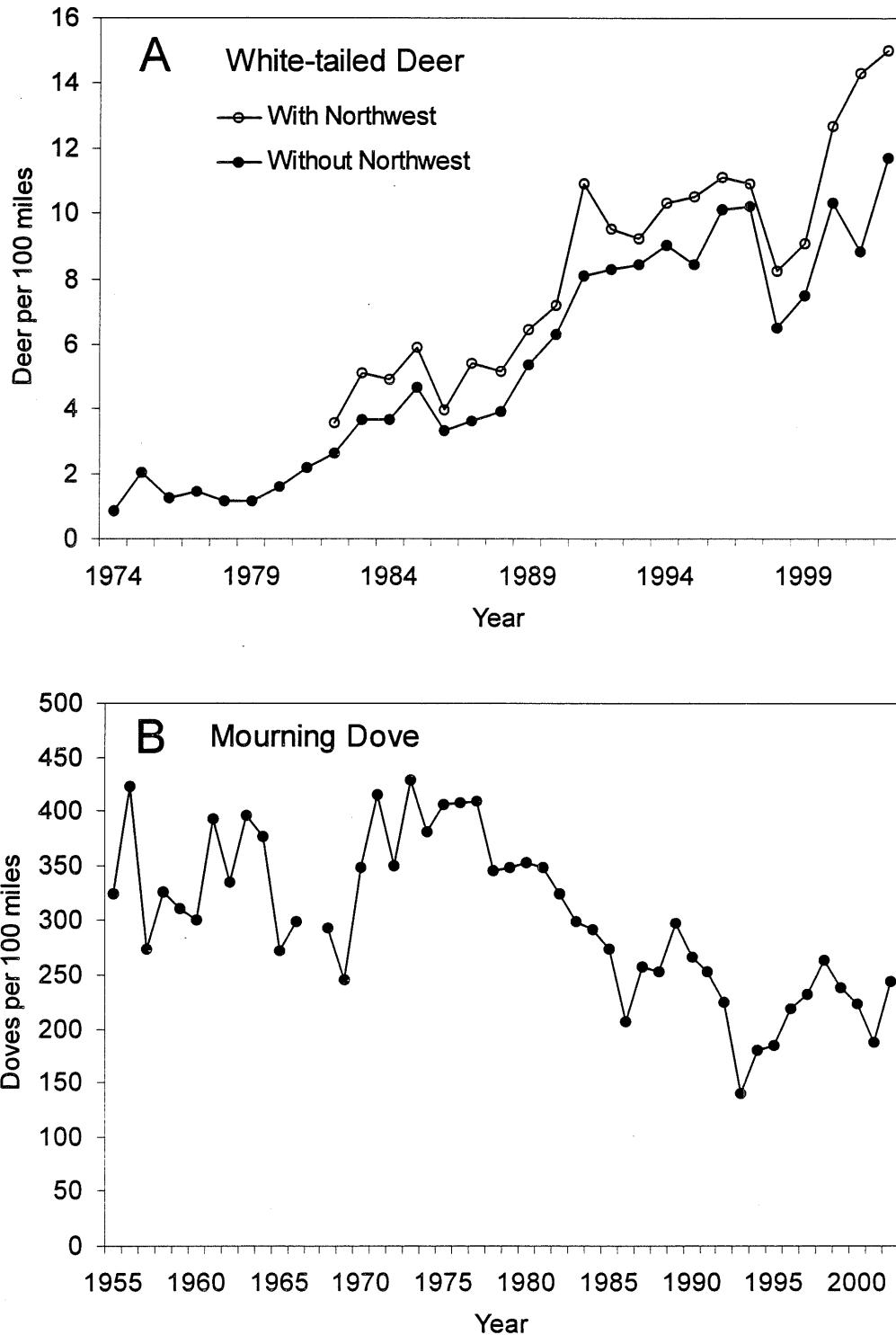


Figure 4. Statewide index of white-tailed deer (A) and mourning doves (B) seen per 100 miles driven, 1955-present. Doves were not counted in 1967 and the dove index does not include the Northwest region.

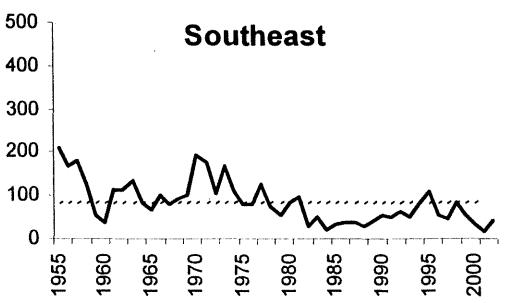
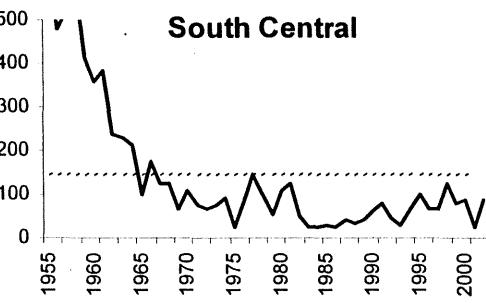
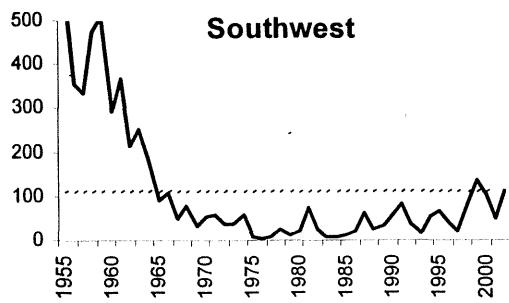
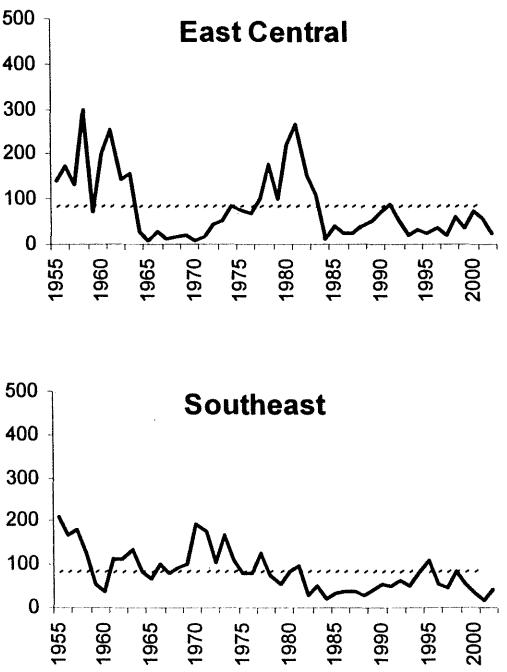
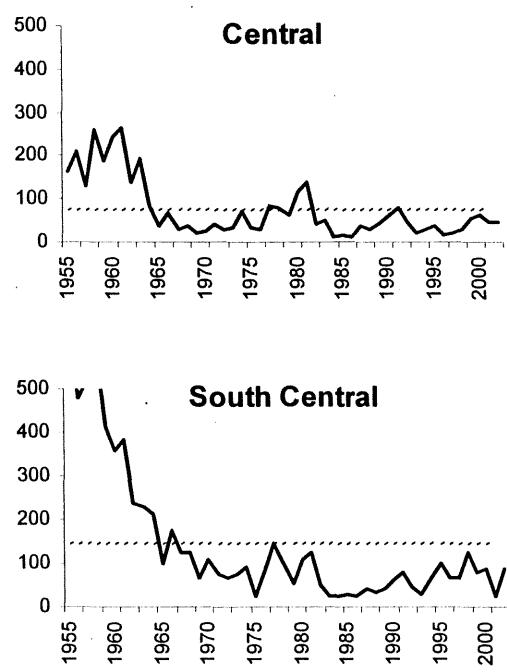
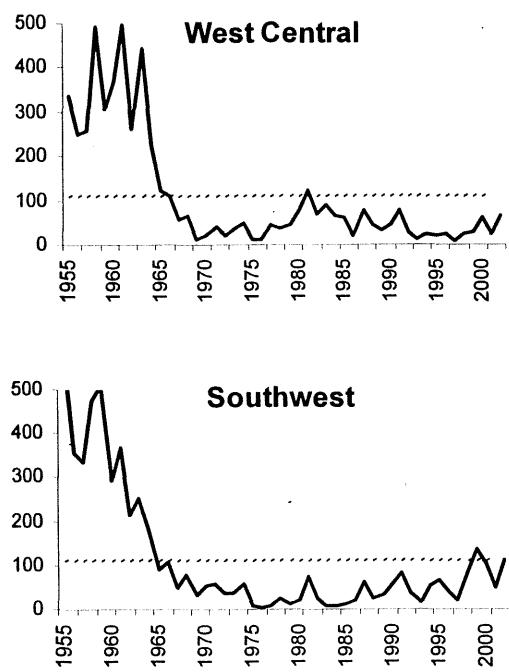
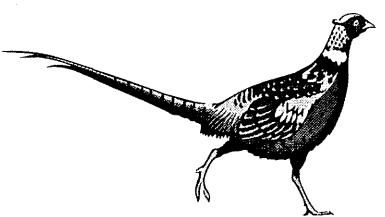


Figure 5. Regional index (—) and long-term average (···) of ring-necked pheasants seen per 100 miles driven, Minnesota August roadside survey, 1955-present.

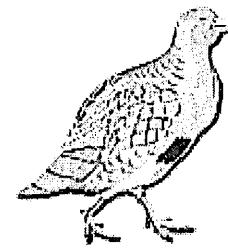
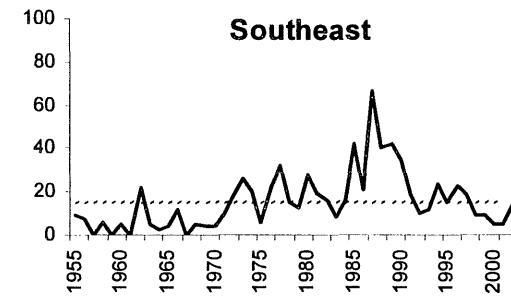
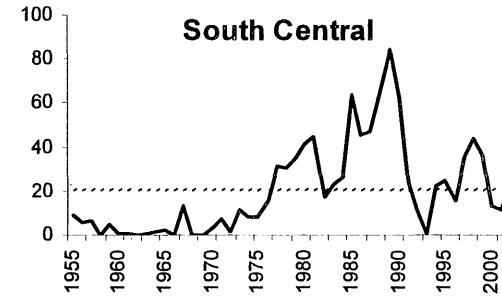
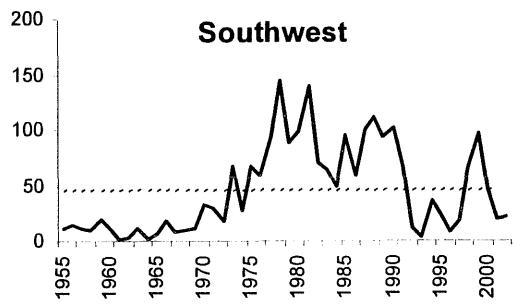
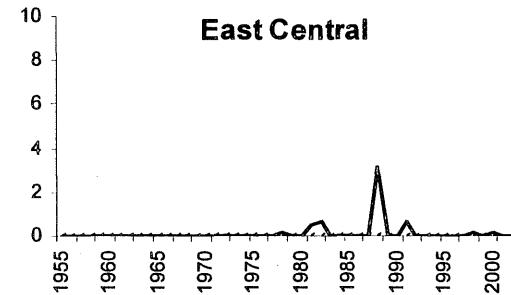
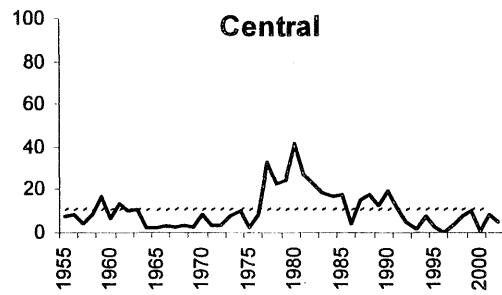
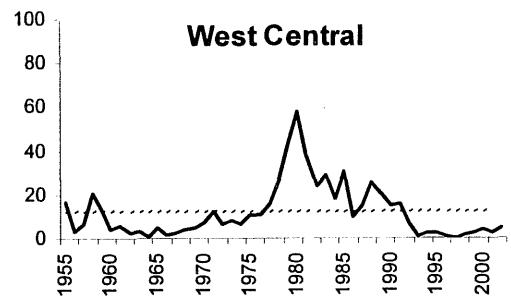
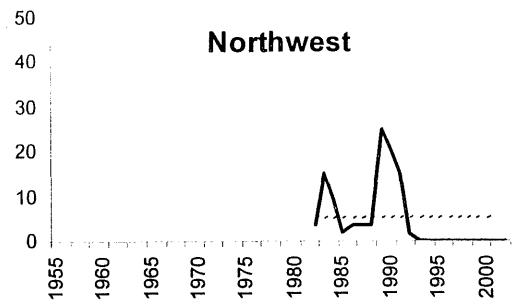


Figure 6. Regional index (—) and long-term average (....) of gray partridge seen per 100 miles driven, Minnesota August roadside survey, 1955-present. Note: scale of vertical axis is not the same among survey regions.

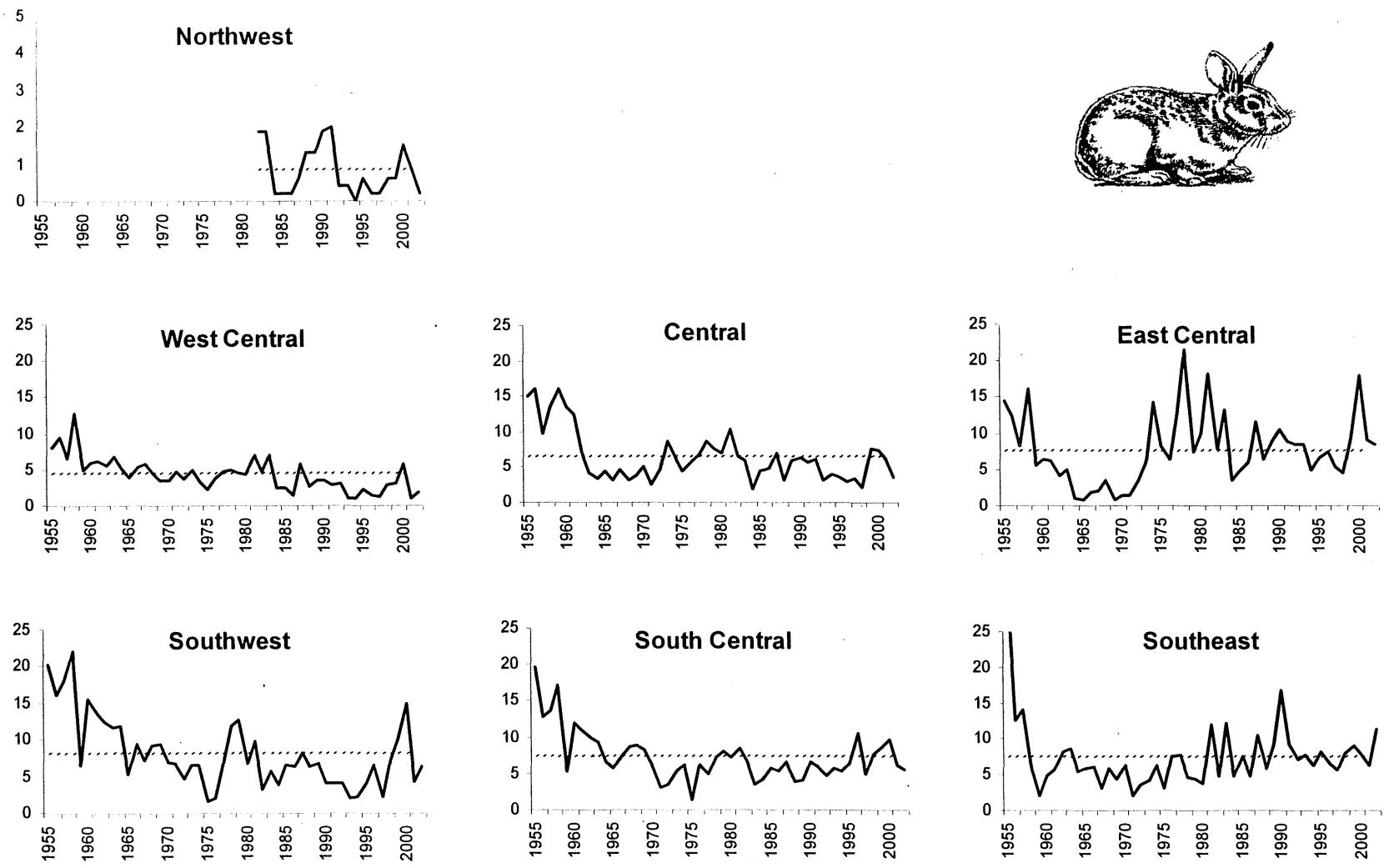
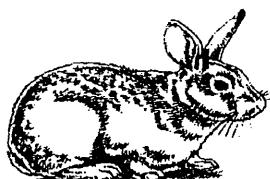


Figure 7. Regional index (—) and long-term average (···) of Eastern cottontail rabbits seen per 100 miles driven, Minnesota August roadside survey, 1955-present. **Note:** scale of vertical axis is not the same among survey regions.



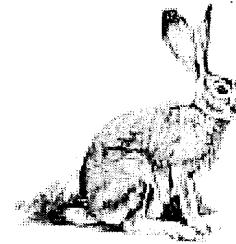
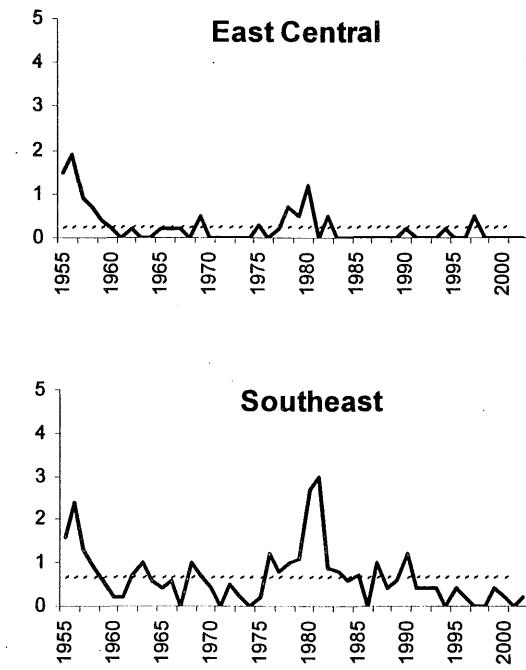
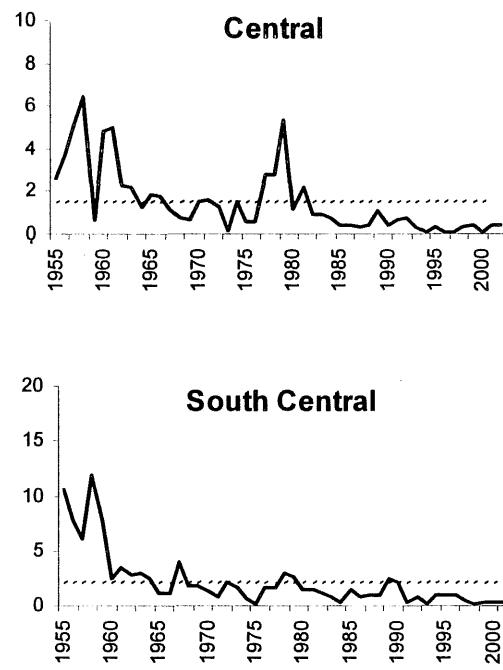
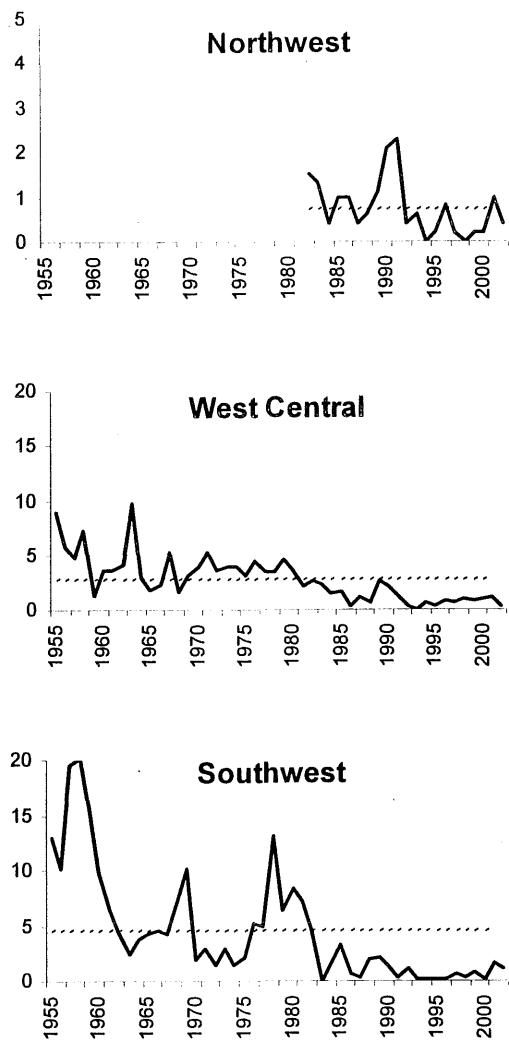


Figure 8. Regional index (—) and long-term average (···) of white-tailed jackrabbits seen per 100 miles driven, Minnesota August roadside survey, 1955-present. Note: scale of vertical axis is not the same among survey regions.

Table 1. Abundance (total acres) and density (acres/mi²) of protected grassland habitat within Minnesota's primary pheasant range, 2002
 (unpubl. data, Kurt Haroldson, MNDNR).

AGREG	Cropland retirement					USFWS			MNDNR (WMA)	Total	%	Density (ac/mi ²)
	CRP	CREP	RIM	RIM-WRP	WRP	WPA	Easement	Refuge				
C	125,940	14,539	14,839	864	1,480	33,127	9,563	31,232	41,631	273,215	4.5	28.9
EC	5,156	0	779	0	4	0	0	10,297	82,163	98,400	3.1	19.6
SC	80,005	25,457	9,882	3,437	4,414	4,478	2,015	0	29,168	158,854	3.9	25.2
SE	85,546	0	4,841	485	293	76	0	0	44,065	135,306	3.7	23.4
SW	110,223	21,622	9,786	579	325	11,229	1,926	354	49,265	205,310	5.4	34.7
WC	333,157	38,481	14,325	1,116	2,167	101,021	49,022	11,520	95,507	646,317	9.5	60.9
Total	740,027	100,100	54,452	6,482	8,683	149,931	62,526	53,403	341,799	1,517,402	5.5	35.2

Table 2. Statewide trends (% change) in mean number of wildlife observed per 100 miles driven, 1955-2002.

Species	Change from 2001 ^a					Change from 10-year average ^b					Change from long-term average ^c			
	Subgroup	n	2001	2002	%	95% CI	n	1992-01	%	95% CI	n	LTA	%	95% CI
Ring-necked pheasant														
Total pheasants	154	35.0	65.2	86	±34	154	47.8	36	±24	135	108.3	-38	±12	
Cocks		4.4	5.1	16	±25		4.2	21	±24		12.5	-57	±12	
Hens		4.5	8.1	81	±33		6.5	25	±21		15.6	-46	±12	
Broods		5.0	9.6	92	±34		7.2	34	±21		13.7	-26	±13	
Chicks per brood		5.2	5.4	4			5.3	2			5.7	-5		
Broods per 100 hens		112.1	118.5	6			112.4	6			101.3	17		
Median hatch date		Jun 09	Jun 07				Jun 07							
Gray partridge														
Total partridge	173	6.8	9.6	41	±67	173	10.4	-8	±34	135	17.9	-34	±26	
Adults		1.9	2.1	10	±44		2.8	-24	±28		4.5	-42	±23	
Broods		0.6	0.9	61	±79		1.0	-6	±37		1.5	-26	±30	
Chicks per brood		8.5	8.1	-5			8.2	-1			9.0	-11		
Broods per 100 adults		29.8	43.5	46			32.9	32			33.3	31		
Median hatch date		Jun 24	Jun 30				Jun 24							
Eastern cottontail	173	4.7	4.9	5	±37	173	4.9	-1	±20	135	6.8	-17	±17	
White-tailed jackrabbit	173	0.6	0.5	-25	±59	173	0.4	11	±62	135	2.1	-76	±19	
White-tailed deer	173	14.4	15.1	5	±21	173	10.6	42	±24	140	5.4	127	±47	
Mourning dove	173	174.2	225.8	30	±21	173	196.0	15	±15	135	279.9	-13	±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 = 1955-2001, except for deer = 1974-2001. 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 mean number of wildlife observed per 100 miles driven, 1955-2002.

Region	Species	Change from 2001 ^a					Change from 10-year average ^b					Change from long-term average ^c				
		n	2001	2002	%	95% CI	n	1992-01	%	95% CI	n	LTA	%	95% CI		
Northwest^d																
	Gray partridge	19	0.0	0.0	-75	±138	19	0.2	-100	±128	10	3.0	-100	±66		
	Eastern cottontail		0.8	0.2				0.5	-61	±117		0.9	-100	±106		
	White-tailed jackrabbit		1.0	0.4	-60	±140		0.4	10	±178		0.9	-100	±81		
	White-tailed deer	59.4	42.3	-29	±26		25.3	68	±50		22.3	111	±112			
	Mourning dove	65.9	82.0	9.4	±65		96.9	-26	±31		127.5	-30	±41			
West Central																
	Ring-necked pheasant	35	25.9	67.4	161	±103	35	27.0	148	±107	29	117.7	-45	±32		
	Gray partridge		2.7	4.9	79	±236		2.4	102	±212		10.8	-69	±43		
	Eastern cottontail		1.1	1.7	50	±124		2.3	-21	±56		4.6	-66	±29		
	White-tailed jackrabbit		1.0	0.5	-56	±80		0.7	-30	±68		2.8	-86	±21		
	White-tailed deer		9.2	12.9	40	±61		12.1	3	±29		7.7	75	±45		
	Mourning dove	315.0	199.9	58	±54		302.1	5	±37		414.6	-31	±21			
Central																
	Ring-necked pheasant	31	46.1	46.9	2	±39	31	37.7	24	±35	27	82.7	-35	±29		
	Gray partridge		8.1	5.3	-34	±157		4.8	12	±161		11.7	-35	±90		
	Eastern cottontail		6.1	3.5	-43	±60		4.7	-25	±41		6.5	-39	±35		
	White-tailed jackrabbit		0.4	0.4	2	±243		0.3	34	±268		1.6	-66	±70		
	White-tailed deer		4.8	7.9	66	±92		5.0	58	±68		3.4	151	±118		
	Mourning dove	171.6	173.0	1	±25		185.4	-7	±20		243.3	-27	±13			
East Central																
	Ring-necked pheasant	17	55.0	26.1	-53	±55	17	42.0	-38	±59	17	79.6	-76	±29		
	Gray partridge		0.0	0.0				0.0				0.0				
	Eastern cottontail		9.1	8.5	-7	±67		8.3	2	±37		7.7	22	±53		
	White-tailed jackrabbit		0.0	0.0				0.1	-100	±212		0.3	-100	±64		
	White-tailed deer		16.0	20.4	28	±107		9.5	115	±166		5.2	294	±304		
	Mourning dove	74.5	75.9	1.9	±27		92.0	-18	±28		129.0	-41	±33			

Table 3. Continued.

Region	Species	Change from 2001					Change from 10-year average					Change from long-term average			
		n	2001	2002	%	95% CI	n	1992-01	%	95% CI	n	LTA	%	95% CI	
Southwest															
Ring-necked pheasant	19	48.7	113.2	133		±87	19	60.5	87	±57	19	109.0	4	±36	
Gray partridge		19.1	20.8	9		±118		32.7	-36	±51		46.1	-55	±37	
Eastern cottontail		4.4	6.4	46		±118		5.8	10	±63		8.2	-22	±44	
White-tailed jackrabbit		1.7	1.1	-36		±104		0.6	89	±199		4.5	-76	±33	
White-tailed deer		11.1	15.4	39		±52		8.5	82	±68		6.1	154	±88	
Mourning dove		278.5	313.5	13		±65		227.2	38	±35		310.1	1	±31	
South Central															
Ring-necked pheasant	32	26.3	88.0	234		±113	32	68.8	28	±46	29	142.3	-38	±22	
Gray partridge		11.6	20.6	78		±124		21.3	-4	±59		20.8	2	±62	
Eastern cottontail		6.2	5.6	-11		±111		6.9	-19	±36		7.4	-22	±31	
White-tailed jackrabbit		0.3	0.6	150		±370		0.6	14	±152		2.1	-69	±46	
White-tailed deer		4.7	6.9	45		±102		4.2	62	±97		2.7	180	±174	
Mourning dove		211.8	290.5	37		±48		188.9	54	±42		253.0	9	±33	
Southeast															
Ring-necked pheasant	20	17.5	40.6	132		±96	20	59.3	-32	±37	19	87.6	-51	±30	
Gray partridge		5.0	13.4	169		±319		13.0	3	±99		16.6	-15	±81	
Eastern cottontail		6.2	11.4	85		±77		7.2	57	±70		7.5	38	±64	
White-tailed jackrabbit		0.0	0.2					0.2	0	±250		0.8	-72	±55	
White-tailed deer		12.7	12.4	-3		±66		15.5	-20	±35		8.4	48	±79	
Mourning dove		161.5	238.3	48		±54		191.3	25	±41		234.4	6	±39	

^a Based on routes (n) surveyed in both years.^b Based on routes (n) surveyed at least 9 of 10 years.^c LTA = 1955-2001, except for Northwest region (1982-2001) and white-tailed deer (1974-2001). Estimates based on routes (n) surveyed ≥40 years (1955-2001), 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. Range-wide August roadside indices for selected other wildlife species.

Species	Animals observed per 100 miles driven						% change
	1997	1998	1999	2000	2001	2002	
Sharp-tailed grouse	0.0	0.0	<0.1	0.1	0.1	0.3	+200
Greater prairie-chicken	0.0	<0.1	0.0	0.1	0.1	0.0	-100
Wild turkey						3.6	
Sandhill crane	3.2	5.1	6.0	3.7	7.2	6.6	-8
Badger	<0.1	<0.1	0.0	0.0	0.0	0.0	0
Gray and fox squirrel	1.0	0.5	0.7	0.4	1.2	0.6	-50
Gray and red fox	0.1	0.3	0.4	0.1	0.1	0.1	0
Striped and spotted skunk	0.2	0.4	0.4	0.3	0.1	0.2	+100

Table 5. Greater prairie-chicken spring booming ground counts for 14 northwestern counties. 1989-2001.
 (counts summarized by AWM Terry Wolfe, Crookston).

County	Number of booming males (Number of booming grounds)												2000	2001
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000		
Becker	18 (3)	69 (7)	30 (3)	69 (6)	58 (10)	21 (3)	20 (3)	2 (1)	14 (1)	51 (5)	9 (1)	8 (1)	16 (2)	
Cass	48 (9)	51 (8)	52 (12)	55 (10)	38 (8)	30 (5)	18 (5)	17 (2)	7 (2)	8 (3)	9 (3)	8 (3)	8 (2)	
Chippewa	0	0	0	0	0	0	0	0	0	0	0	6 (1)	0	
Clay	83 (8)	307 (18)	441 (28)	654 (45)	366 (36)	306 (31)	422 (38)	539 (46)	335 (32)	411 (39)	454 (32)	541 (44)	465 (45)	
Hubbard	19 (5)	29 (5)	24 (5)	18 (2)	17 (3)	14 (3)	9 (3)	9 (3)	3 (1)	2 (1)	3 (1)	3 (1)	0	
Lac qui Parle	0	0	0	0	0	0	0	0	0	0	0	4 (1)	5 (1)	
Mahnomen	0	46 (6)	21 (3)	143 (13)	76 (76)	31 (4)	21 (6)	11 (2)	53 (4)	32 (3)	0 (0)	0 (0)	0	
Marshall	0	1 (1)	0	0	0	0	0	0	0	0	0	0 (0)	0	
Norman	73 (7)	145 (11)	215 (12)	339 (15)	221 (26)	248 (25)	278 (30)	314 (37)	160 (19)	260 (26)	274 (25)	263 (29)	304 (36)	
Ottertail	0	0	1 (1)	4 (1)	16 (2)	5 (1)	0	28 (3)	19 (3)	58 (7)	56 (7)	75 (8)	49 (6)	
Pennington	0	9 (1)	0	0	0	0	0	0	0	0	0	0	0	
Polk	150 (17)	204 (23)	267 (25)	311 (27)	190 (22)	189 (18)	228 (27)	197 (19)	154 (21)	251 (25)	239 (21)	302 (33)	195 (23)	
Red Lake	5 (1)	34 (6)	38 (6)	38 (5)	12 (2)	21 (3)	25 (4)	32 (4)	33 (6)	21 (3)	40 (6)	51 (7)	19 (3)	
Swift													5 (1)	
Wadena	59 (13)	134 (17)	145 (21)	38 (7)	43 (8)	12 (4)	9 (2)	15 (3)	18 (2)	0	0	12 (2)	0	
Wilkin	100 (6)	199 (15)	228 (13)	244 (13)	142 (11)	207 (12)	213 (16)	283 (19)	138 (12)	368 (22)	335 (21)	296 (17)	279 (21)	
Total	555 (69)	1228 (118)	1432 (129)	1913 (144)	1179 (138)	1084 (109)	1274 (133)	1447 (142)	934 (103)	1462 (134)	1419 (117)	1569 (147)	1345 (140)	
males/ground	8.0	10.4	11.1	13.3	8.5	9.9	9.6	10.2	9.1	10.9	12.1	10.7	9.6	

^a 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.

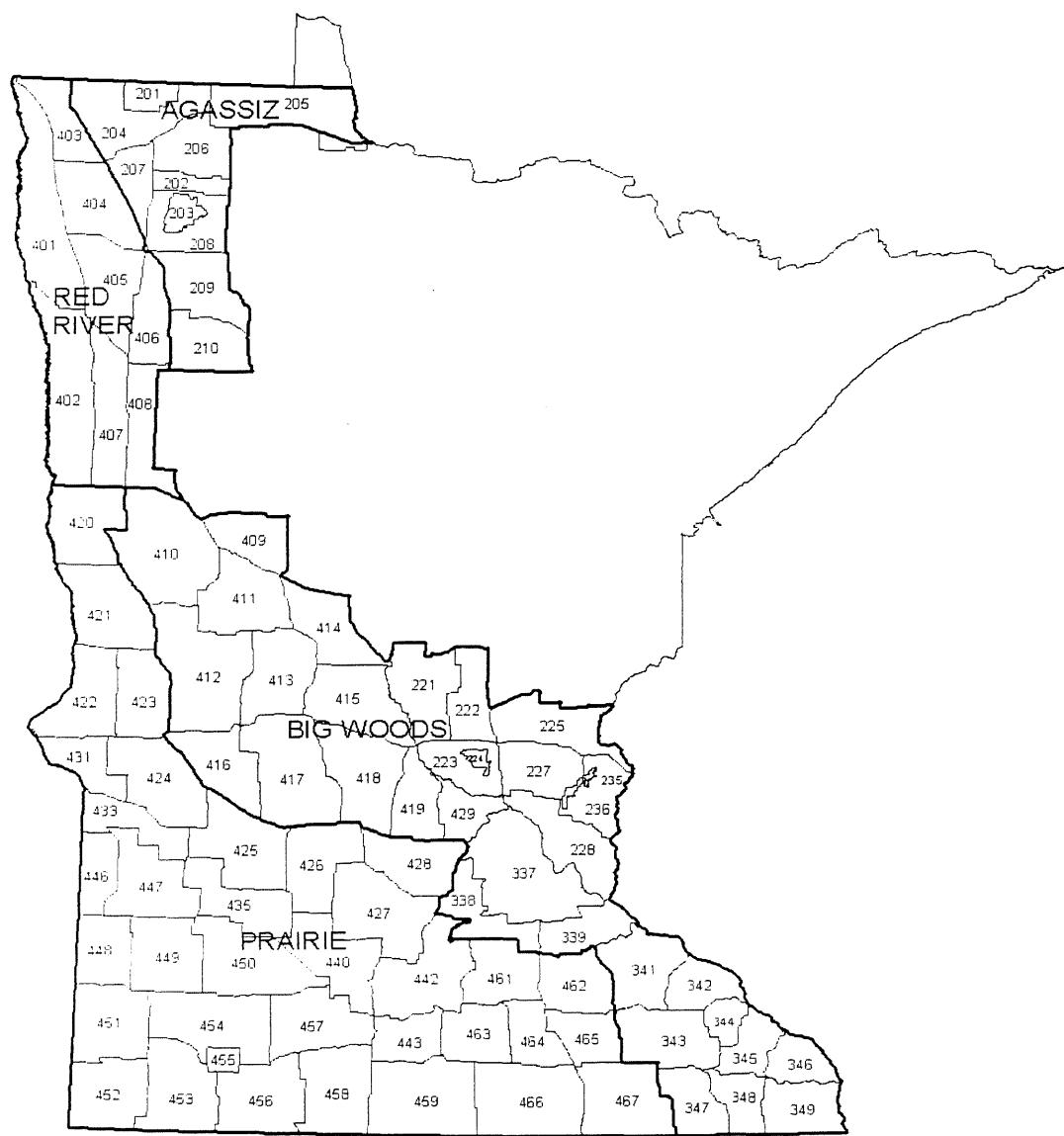


Figure 9. Deer Permit Areas in Minnesota's Farmland zone, 2002.

Table 6. Reproductive performance of white-tailed deer in Minnesota for the Northwest^a Deer Management Unit (DMU), 1980-2002.

Year	Fawns			Adults		
	N	Percent pregnant	Fetuses per doe	N	Percent pregnant	Fetuses per doe
2002	7	14	0.14	13	100	1.77
2001	4	0	0.00	8	100	1.75
2000	7	14	0.14	11	100	2.00
1999	5	0	0.00	14	100	1.57
1998	3	0	0.00	7	86	1.57
1997	4	0	0.00	12	100	1.50
1996	5	0	0.00	21	81	1.33
1995	4	25	0.25	6	100	2.00
1994	7	14	0.14	13	92	1.38
1993	7	0	0.00	11	100	1.64
1992	13	8	0.08	24	96	1.63
1991	11	9	0.09	15	87	1.60
1990	18	22	0.22	29	93	1.66
1989	14	21	0.29	27	93	1.70
1988	3	33	0.33	4	50	0.75
1987	3	0	0.00	5	100	1.60
1986	3	0	0.00	6	83	1.33
1985	6	17	0.17	11	91	1.73
1984	10	40	0.60	23	87	1.65
1983	15	27	0.27	26	85	1.60
1982	6	67	0.67	18	94	1.78
1981	4	0	0.00	11	100	1.73
1980	8	50	0.63	12	92	1.67
Mean (1980's)	29	0.35		90	1.64	
Mean (1990's)	10	0.10		97	1.57	
Mean (2000's)	9	0.09		100	1.84	

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

Table 7. Reproductive performance of white-tailed deer in Minnesota for the Big Woods Deer Management Unit^a, 1978-2002.

Year	Fawns			Adults		
	N	Percent pregnant	Fetuses per doe	N	Percent pregnant	Fetuses per doe
2002	70	23	0.26	97	95	1.75
2001	36	14	0.14	65	94	1.66
2000	62	23	0.25	76	91	1.64
1999	49	37	0.43	95	91	1.61
1998	53	23	0.25	109	91	1.71
1997	40	33	0.35	96	88	1.64
1996	59	15	0.17	112	96	1.84
1995	21	19	0.19	54	91	1.78
1994	46	15	0.17	99	94	1.67
1993	47	38	0.43	95	93	1.67
1992	67	24	0.27	100	95	1.84
1991	50	20	0.22	71	96	1.76
1990	96	32	0.34	125	95	1.82
1989	51	31	0.31	85	96	1.82
1988	14	64	0.79	31	97	1.77
1987	45	44	0.47	146	94	1.78
1986	79	37	0.41	116	88	1.62
1985	60	50	0.57	105	96	1.80
1984	77	22	0.27	123	95	1.75
1983	83	55	0.67	167	95	1.77
1982	95	43	0.51	197	95	1.75
1981	78	58	0.63	132	92	1.68
1980	87	61	0.74	107	97	1.79
1979	87	30	0.32	119	92	1.70
1978	74	47	0.53	133	96	1.77
Mean (1980's)	46	0.52		94	1.75	
Mean (1990's)	26	0.29		93	1.74	
Mean (2000's)	20	0.22		93	1.68	

^aThe majority of samples (86%) 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 8. Reproductive performance of white-tailed deer in Minnesota for the Prairie Deer Management Unit, 1978-2002.

Year	Fawns			Adults		
	N	Percent pregnant	Fetuses per doe	N	Percent pregnant	Fetuses per doe
2002	19	32	0.37	26	92	1.73
2001	18	6	0.11	39	87	1.54
2000	13	23	0.38	23	87	1.61
1999	26	19	0.23	47	96	1.74
1998	18	17	0.17	38	97	1.66
1997	26	4	0.04	49	92	1.67
1996	28	14	0.14	30	90	1.57
1995	39	21	0.26	50	92	1.72
1994	32	16	0.22	46	98	1.89
1993	39	38	0.41	75	93	1.76
1992	37	19	0.22	51	94	1.92
1991	30	20	0.20	67	94	1.82
1990	43	42	0.44	62	97	1.84
1989	37	38	0.38	54	89	1.65
1988	20	40	0.45	16	100	1.87
1987	27	52	0.56	47	94	1.87
1986	25	64	0.76	56	93	1.70
1985	21	38	0.38	49	94	1.85
1984	30	23	0.27	69	84	1.61
1983	42	62	0.86	51	96	1.88
1982	50	46	0.56	85	94	1.88
1981	57	44	0.47	65	92	1.77
1980	51	63	0.67	55	91	1.69
1979	83	34	0.41	92	90	1.76
1978	25	44	0.56	69	100	1.87
Mean (1980's)	48	0.55		92	1.77	
Mean (1990's)	23	0.25		94	1.77	
Mean (2000's)	20	0.29		89	1.63	

Table 9. 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, 1993-2002.

DMU DMSU PA	Area (mi ²)	Density										
		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
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	
402	1021	2.9	3.0	3.3	2.9	2.5	2.7	2.7	2.6	2.5	1.9	
Total	2060	2.4	2.5	2.8	2.5	2.2	2.2	2.2	2.2	2.2	1.8	
East												
403	396	5.6	5.8	6.1	5.1	4.8	5.0	5.1	5.2	5.1	4.8	
404	631	5.9	6.1	6.4	5.5	4.9	5.1	4.9	4.7	4.2	3.1	
405	654	5.9	5.7	6.0	5.1	4.5	4.8	4.8	4.8	4.5	3.5	
406	413	9.4	10.2	11.4	10.1	8.5	8.6	8.4	8.4	7.9	6.0	
407	618	7.1	7.3	7.5	6.5	5.8	5.5	5.4	5.5	5.1	4.3	
408	494	6.9	7.1	7.2	6.1	5.5	5.6	5.4	5.5	5.4	5.1	
Total	3206	6.7	6.9	7.3	6.2	5.5	5.6	5.5	5.5	5.2	4.3	
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	
202	156	10.9	10.1	9.8	7.4	6.3	7.6	8.7	9.7	10.5	10.0	
203	108	12.3	10.4	8.4	4.8	4.4	5.7	6.9	8.4	10.4	12.6	
204	718	7.0	7.2	7.1	5.9	5.0	5.6	5.9	6.1	6.1	5.6	
205	642	10.8	11.3	11.1	8.7	7.2	8.2	8.7	9.1	9.0	8.6	
206	471	8.1	7.9	8.0	6.4	5.3	5.7	6.2	6.7	6.9	6.2	
207	300	8.1	7.6	7.2	5.8	5.2	5.7	6.1	6.4	6.3	5.9	
208	448	3.9	3.7	3.4	2.5	2.2	2.7	3.1	3.4	3.6	3.4	
209	576	5.3	5.5	5.7	4.8	4.4	4.8	4.8	4.7	4.5	3.9	
210	485	9.4	9.8	9.9	8.5	7.7	8.0	8.0	7.6	6.9	5.7	
AGASSIZ TOTAL	4059	7.6	7.6	7.4	6.0	5.3	5.9	6.3	6.6	6.6	6.2	

Table 9. (Cont.)

DMU DMSU PA	Area (mi ²)	Density										
		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
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	
410	924	11.3	11.8	12.1	11.6	10.8	10.7	11.4	11.7	11.4	10.6	
411	642	15.8	16.7	17.7	17.1	16.0	15.9	16.0	15.9	14.9	12.4	
412	989	9.4	9.6	9.8	9.4	8.7	8.5	9.1	9.3	9.2	9.4	
413	644	11.2	12.0	12.7	12.6	11.7	11.8	11.6	11.9	11.8	10.8	
414	557	13.1	14.0	15.1	14.9	14.8	14.5	14.2	13.7	12.4	10.9	
415	702	7.4	8.1	8.6	8.5	8.1	7.9	8.0	8.1	7.8	7.6	
416	544	7.7	8.6	8.6	8.6	8.1	7.7	7.5	7.0	6.6	6.0	
417	939	7.7	8.0	8.3	8.7	7.9	7.2	7.2	7.2	7.1	7.4	
418	760	6.6	6.9	7.1	7.1	6.7	6.5	6.9	6.8	7.0	7.3	
419	393	8.0	8.7	8.9	8.9	8.2	7.0	7.0	7.6	7.9	8.1	
429	288	4.9	5.3	5.1	5.2	5.0	4.7	5.1	5.7	6.1	6.6	
Total	7799	10.1	10.7	11.2	11.1	10.4	10.0	10.2	10.2	9.7	9.0	
Central												
221	642	7.8	7.9	8.5	8.4	8.4	8.6	9.2	9.8	9.4	9.4	
222	412	11.7	11.6	12.5	12.0	11.9	12.4	12.9	13.5	13.3	13.5	
223	376	11.0	11.8	12.4	11.9	11.7	11.4	11.2	11.8	11.6	11.7	
224	48	12.5	13.4	14.5	14.3	15.1	16.3	16.9	18.4	20.1	21.7	
225	619	15.2	15.5	16.6	15.8	15.9	15.5	15.8	16.1	15.9	15.6	
Total	2097	11.4	11.7	12.5	12.1	12.0	12.1	12.4	12.9	12.7	12.7	
Metro ^b												
227	472	13.9	14.5	15.4	12.3	12.5	12.4	13.2	13.8	14.8	15.9	
235	33	13.7	13.7	14.3	13.7	14.7	15.7	20.3	24.7	30.6	39.8	
236	374	13.7	14.3	15.0	15.5	15.4	14.9	15.8	16.6	17.9	19.8	
338	452	4.5	4.4	4.3	4.4	4.0	3.7	3.8	4.2	4.7	5.4	
339	395	5.0	5.5	5.4	5.5	5.1	4.8	5.1	5.6	6.4	7.6	
Total	1726	8.9	9.3	9.6	9.4	9.3	9.0	9.6	10.2	11.2	12.6	

Table 9. (Cont.)

DMU DMSU PA	Area (mi ²)	Density									
		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Southeast											
341	611	7.4	8.0	8.3	8.7	8.8	8.9	9.0	9.2	9.2	10.4
342	352	10.4	10.7	10.8	10.2	10.5	11.5	12.0	12.6	13.0	14.8
343	663	7.1	7.4	7.7	8.1	8.4	8.2	8.7	9.4	9.9	11.6
344	189	17.9	17.7	17.3	17.0	15.7	14.7	14.1	14.6	15.0	17.2
345	326	11.0	10.9	10.8	10.7	11.1	11.5	11.8	12.1	11.8	13.0
346	319	16.3	16.0	16.0	16.7	17.4	17.0	17.3	17.9	17.9	18.8
347	434	9.0	9.3	9.3	9.6	9.8	9.6	9.8	10.3	10.6	12.1
348	332	15.3	15.5	16.0	16.6	17.0	17.3	16.9	16.9	16.1	16.5
349	492	11.2	11.4	11.8	12.5	13.0	14.0	14.6	15.2	14.8	15.8
Total	3718	10.6	10.8	11.0	11.3	11.6	11.7	12.0	12.4	12.5	13.8
BIG WOODS TOTAL	15340	10.3	10.7	11.2	11.1	10.8	10.6	10.8	11.1	11.0	11.1
PRAIRIE											
North											
420	651	3.7	3.6	3.5	3.3	2.9	2.7	3.0	3.2	3.2	3.2
421	749	3.3	3.2	3.1	2.9	2.5	2.3	2.4	2.6	2.7	2.8
422	634	2.8	2.7	2.6	2.5	2.2	2.4	2.6	2.6	2.8	3.1
423	531	3.9	4.0	3.9	4.0	3.6	3.4	3.3	3.2	3.4	3.4
424	766	5.3	5.5	5.5	6.1	4.8	4.0	3.7	3.4	3.2	3.3
425	779	2.4	2.4	2.3	2.1	1.6	1.5	1.6	1.7	2.0	2.6
426	614	3.7	3.8	3.5	3.1	2.8	2.7	2.7	2.8	3.1	3.4
427	837	2.5	2.4	2.3	2.0	1.7	1.7	1.8	2.0	2.3	2.8
428	550	3.9	3.9	3.9	3.9	3.5	3.5	3.7	3.8	4.2	4.8
Total	6111	3.5	3.5	3.4	3.3	2.8	2.6	2.7	2.8	2.9	3.2
River											
431	360	6.5	7.0	7.0	7.9	7.0	6.2	5.7	4.7	4.0	3.4
433	397	9.3	10.2	10.7	11.1	10.1	9.6	9.1	8.8	8.2	8.1
435	575	5.6	5.8	6.0	6.3	5.5	5.2	5.0	4.7	4.4	4.1
440	662	4.0	4.4	4.6	4.7	4.4	4.2	4.2	4.1	4.0	3.8
442	806	4.4	4.7	4.9	4.8	4.2	4.0	4.1	4.2	4.0	3.9
443	386	6.0	6.7	7.1	7.2	6.6	6.1	5.8	5.4	4.9	4.8
Total	3186	5.6	6.0	6.3	6.5	5.8	5.5	5.3	5.0	4.7	4.5

Table 9. (Cont.)

DMU DMSU PA	Area (mi ²)	Density									
		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Southwest											
446	345	5.6	6.0	6.5	6.9	6.7	6.4	6.3	6.1	6.0	5.9
447	675	2.8	2.7	2.9	2.9	2.7	2.7	2.8	3.1	3.4	3.9
448	447	3.9	3.9	3.7	3.8	3.5	3.5	3.8	4.9	6.1	7.3
449	625	4.1	4.2	4.2	4.0	3.6	3.4	3.6	4.4	5.6	6.7
450	816	1.9	2.1	2.1	2.0	1.8	1.7	1.9	1.9	2.0	2.2
451	687	2.6	2.7	2.7	3.1	2.8	2.6	2.7	2.7	2.9	3.2
452	637	2.4	2.5	2.8	3.1	3.0	2.8	2.8	2.8	2.6	2.5
453	729	2.2	2.3	2.4	2.5	2.2	2.2	2.5	2.8	3.1	3.8
454	840	3.5	3.7	3.8	3.9	3.5	3.4	3.6	3.8	3.9	4.3
455	95	4.9	5.2	5.1	5.3	5.0	5.1	5.2	5.0	5.0	5.5
456	712	3.3	3.4	3.5	3.6	3.4	3.1	3.2	3.1	3.1	3.3
457	666	2.7	2.8	2.7	2.9	2.6	2.5	2.7	2.8	2.8	2.8
458	715	2.6	2.9	3.0	3.1	2.7	2.5	2.4	2.4	2.2	2.3
459	974	3.1	3.4	3.6	3.8	3.6	3.2	3.3	3.4	3.4	3.8
Total	8963	3.0	3.2	3.3	3.4	3.1	2.9	3.1	3.2	3.4	3.8
Southeast											
461	481	6.5	7.4	7.8	7.9	7.8	7.4	6.8	6.3	5.7	5.4
462	506	6.3	7.2	7.7	7.7	7.6	7.7	7.6	6.9	6.3	6.0
463	453	3.2	3.4	3.5	3.2	3.2	3.1	3.1	3.1	3.2	3.3
464	377	4.0	4.4	4.7	4.6	4.2	4.1	3.9	4.1	4.3	5.0
465	385	4.1	4.6	4.9	4.8	4.7	4.5	4.6	4.2	4.2	4.6
466	931	3.1	3.4	3.6	3.8	3.7	3.6	3.7	3.5	3.0	3.2
467	774	2.9	3.3	3.4	3.4	3.6	3.7	3.7	3.9	3.9	4.2
Total	3907	4.1	4.6	4.8	4.8	4.8	4.7	4.6	4.4	4.2	4.3
PRAIRIE TOTAL	22167	3.7	3.9	4.0	4.1	3.7	3.5	3.5	3.6	3.6	3.8
FARMLAND TOTAL	46832	6.3	6.6	6.8	6.6	6.2	6.1	6.3	6.4	6.3	6.4

^a Historical pre-fawning deer density estimates were calculated using a new population model and may differ from estimates previously published.

^b Excluding permit areas 228 and 337, which are not modeled.

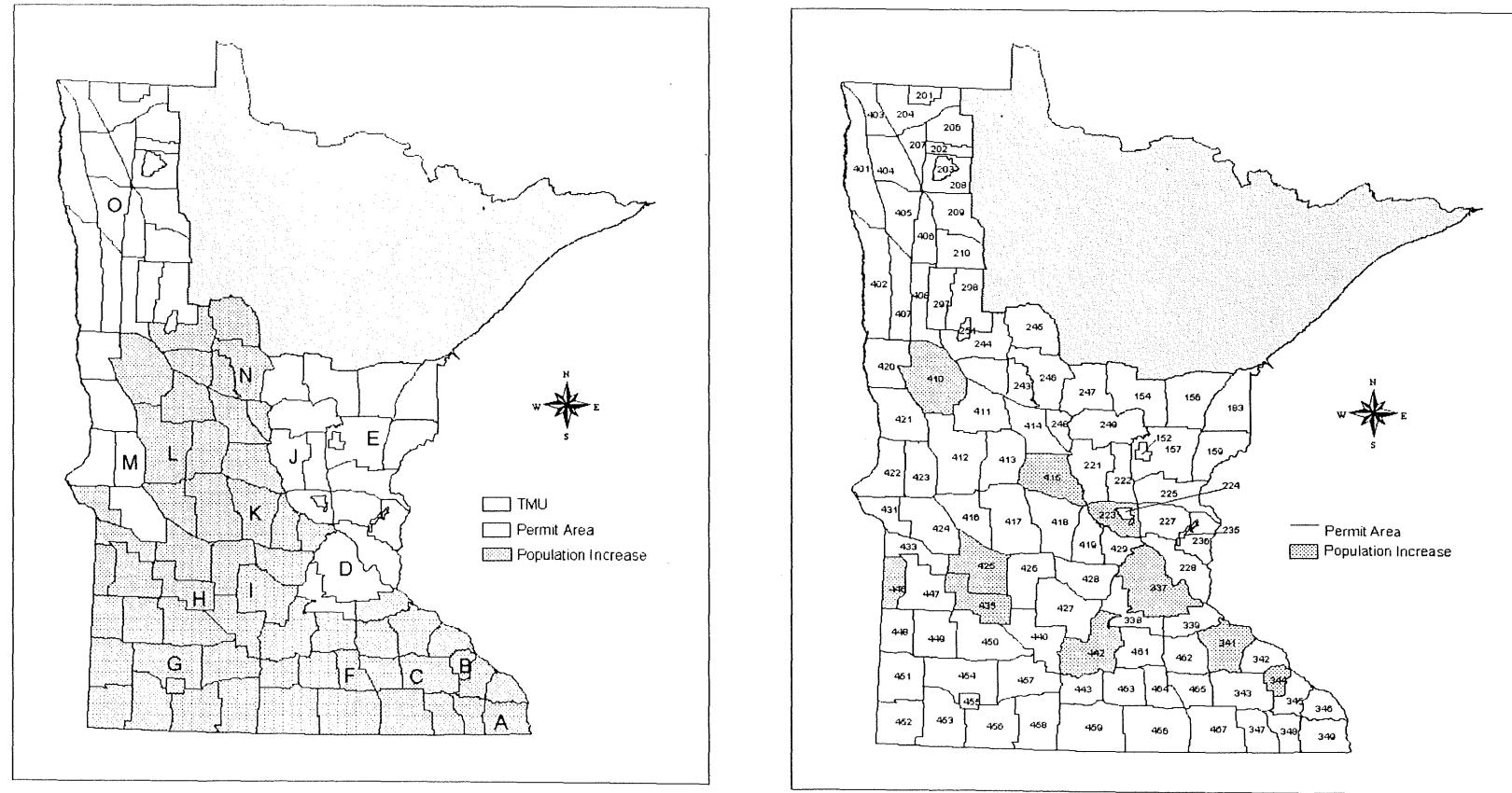


Figure 10. (a) Location of turkey management units (TMU's) and (b) antlerless deer permit areas used for the wild turkey survey, Minnesota, November-December, 1999.

Table 10. Percent of antlerless-deer hunters observing wild turkeys (HOWT) in Minnesota, November-December, 1992-99. Note: No survey conducted in 1995, 1996, 1998-2001.

Turkey Management Unit	Year	n (Respondents)	HOWT	99% CI on HOWT for 1997-99
A	1992	629	62.8	7.0
	1993	637	64.8	
	1994	618	61.2	
	1997	571	64.1	
	1999	591	72.8*	
B	1992	473	62.4	8.4
	1993	467	53.1	
	1994	421	59.6	
	1997	386	58.8	
	1999	409	77.0*	
C	1992	632	52.4	7.0
	1993	637	57.6	
	1994	615	55.0	
	1997	556	64.9	
	1999	571	75.1*	
D	1992	563	17.1	7.3
	1993	633	17.4	
	1994	633	19.3	
	1997	576	38.0	
	1999	598	39.8	
E	1992	581	3.4	5.0
	1993	647	7.1	
	1994	638	4.7	
	1997	608	14.1	
	1999	609	11.8	
F	1992	583	19.0	7.2
	1993	594	24.8	
	1994	652	27.6	
	1997	614	36.3	
	1999	612	46.1*	
G	1992	625	3.7	5.7
	1993	644	5.3	
	1994	616	7.6	
	1997	595	14.8	
	1999	617	21.1*	
H	1992	598	16.4	7.0
	1993	655	16.0	
	1994	636	17.1	
	1997	626	31.8	
	1999	615	45.0*	
I	1992	596	4.5	5.7
	1993	569	3.9	
	1994	562	2.7	
	1997	525	9.7	
	1999	471	18.3*	
J	1992	560	2.1	5.4
	1993	609	1.6	
	1994	539	4.6	
	1997	559	15.0	
	1999	589	14.6	

Table 10. (Continued)

K	1992	600	6.0	6.1
	1993	624	5.6	
	1994	614	8.5	
	1997	578	16.6	
	1999	612	26.5*	
L	1992	653	1.7	4.9
	1993	687	2.5	
	1994	667	4.2	
	1997	675	10.1	
	1999		16.8*	
M	1992	578	2.9	3.5
	1993	597	3.4	
	1994	613	3.1	
	1997	540	4.8	
	1999	557	5.8	
N	1992	663	2.1	3.7
	1993	710	1.7	
	1994	657	2.3	
	1997	607	4.6	
	1999	614	8.8*	
O	1992	576	3.8	2.2
	1993	626	1.9	
	1994	620	2.6	
	1997	553	1.3	
	1999	637	3.5	

* Significant change in index from 1997 to 1999 ($p < 0.01$)

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.



Figure 11. Number of wildlife complaints recorded by species from 1993-2001.

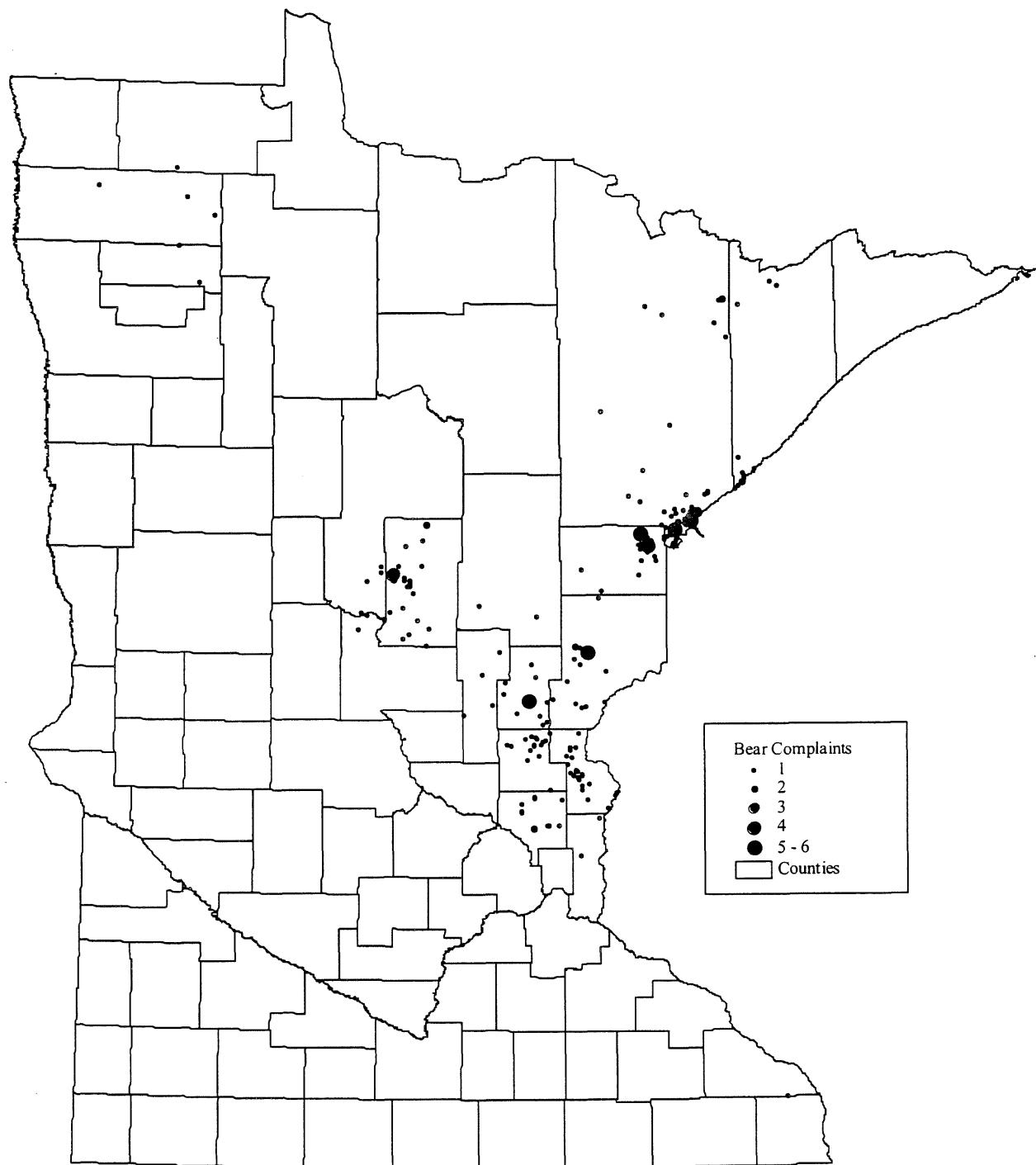


Figure 12. Location of bear damage complaints recorded in 2001. (n=218)

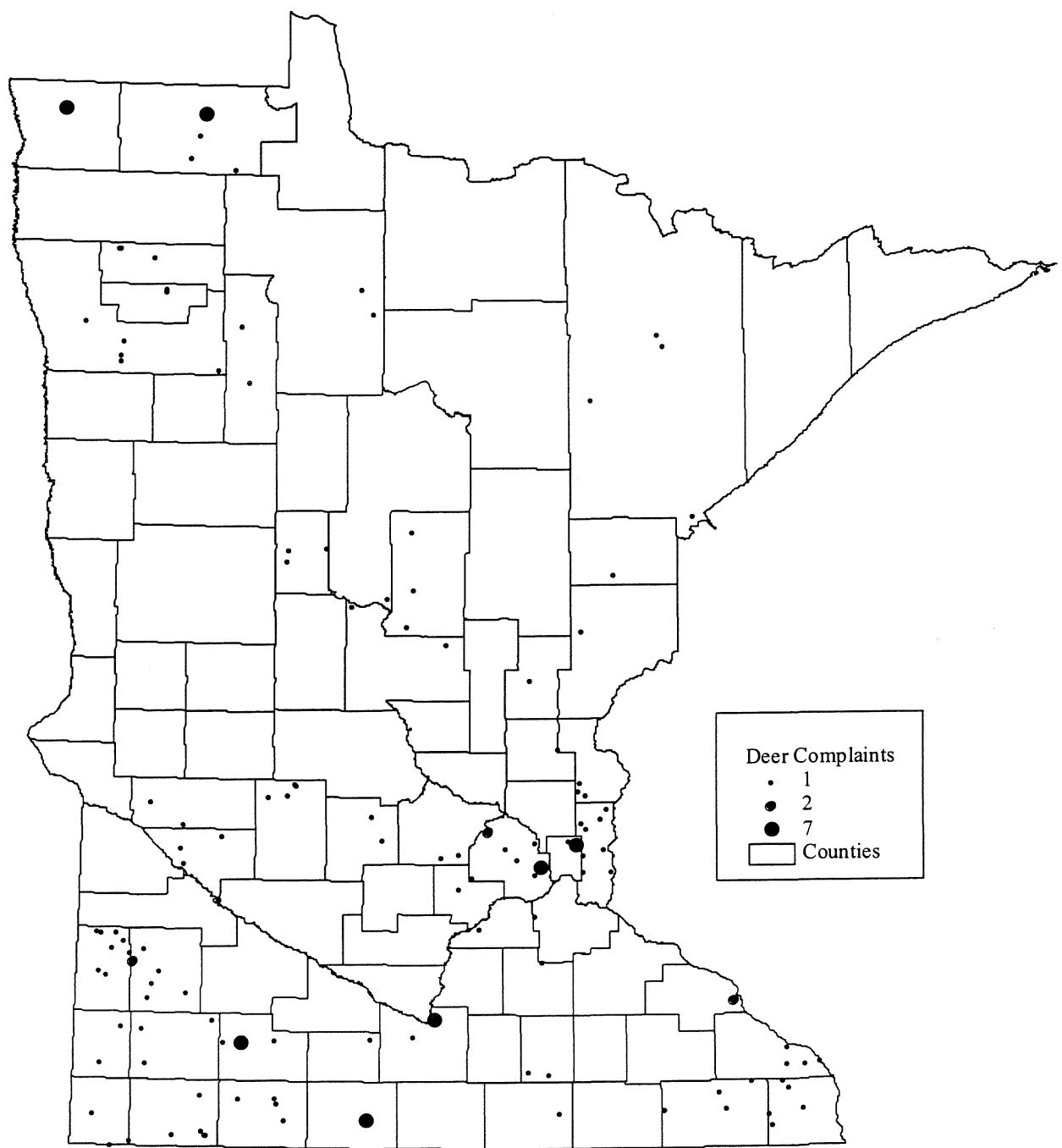


Figure 13. Location of deer damage complaints recorded in 2001. (n=132)

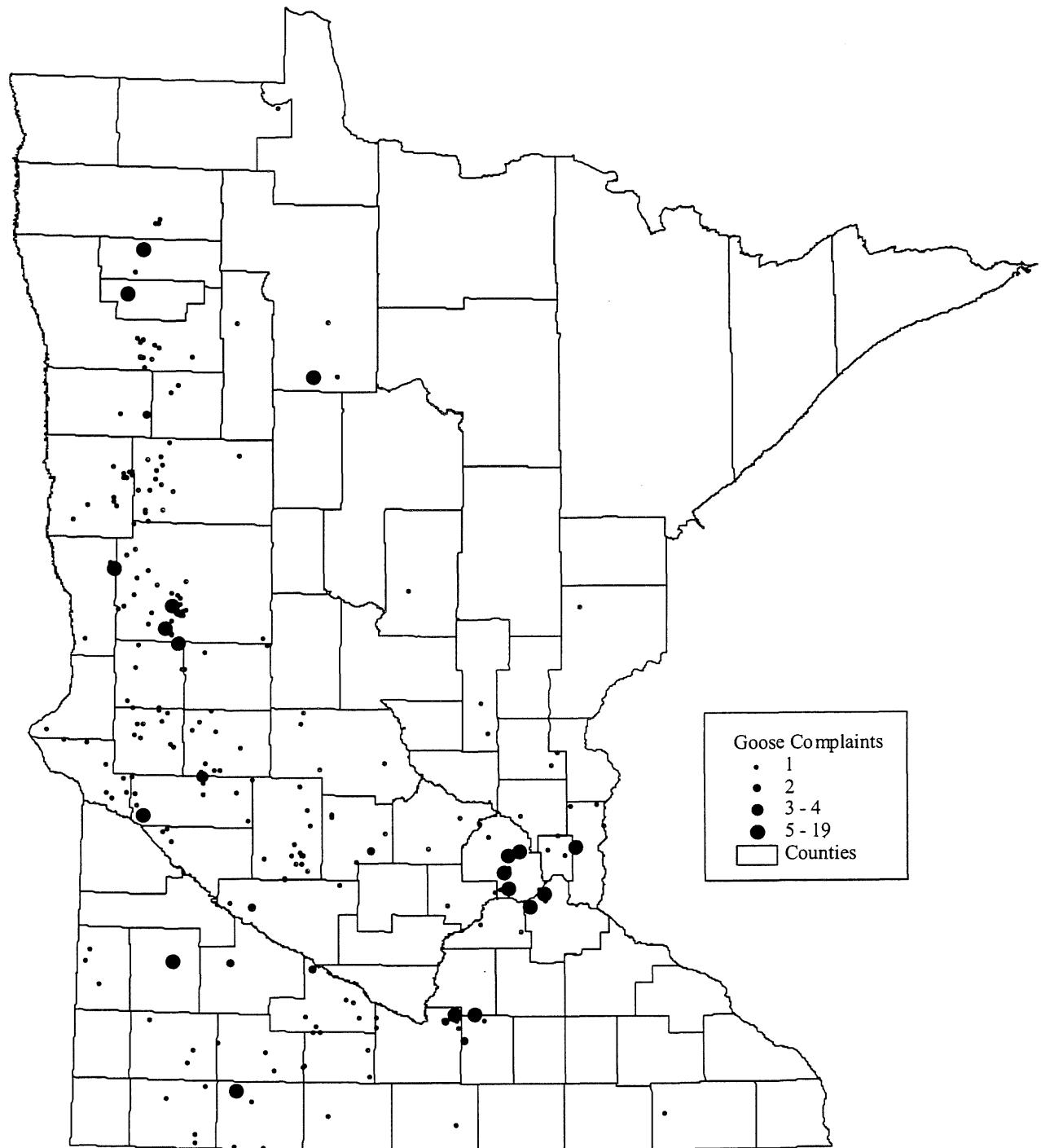


Figure 14. Location of goose damage complaints recorded in 2001. (n= 251)

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.

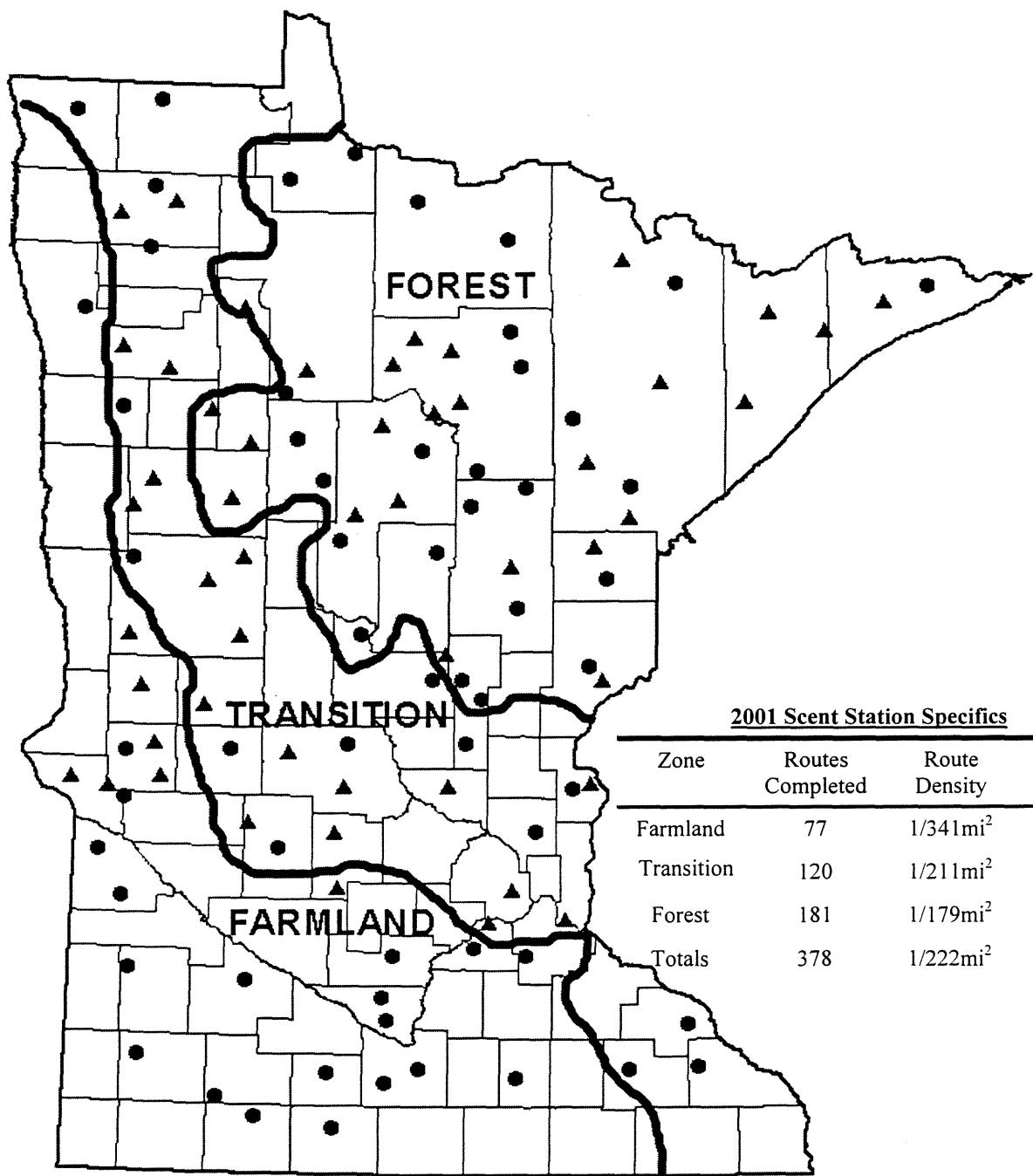


Figure 15. Approximate locations of scent station routes conducted by DNR Division of Wildlife (●) and interagency cooperators (▲), 2001. Each marked location may represent from 1-6 actual routes. Inset shows 2001 route specifics

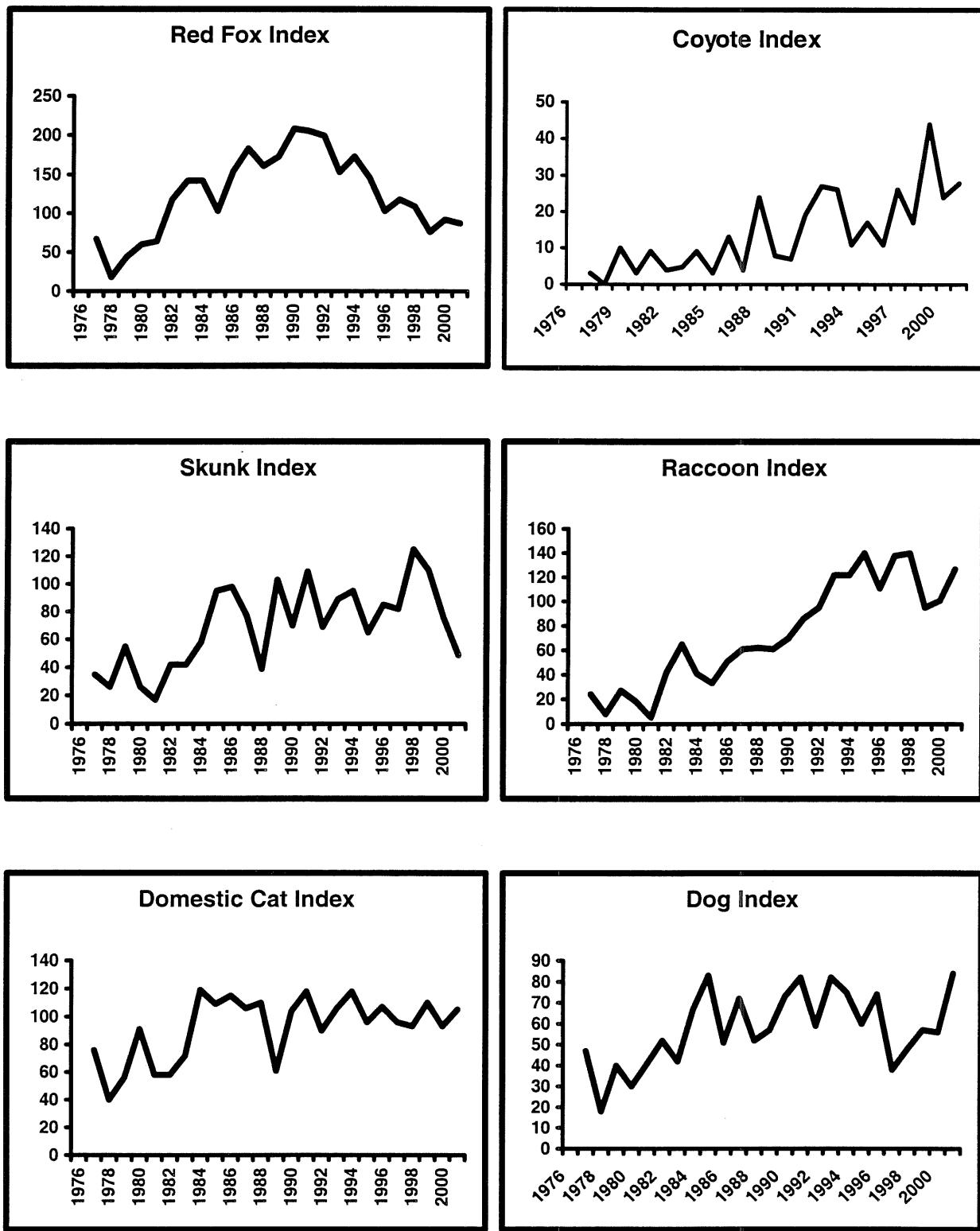


Figure 16. Scent station indices for selected species in the Farmland Zone of Minnesota, 1976-2001.

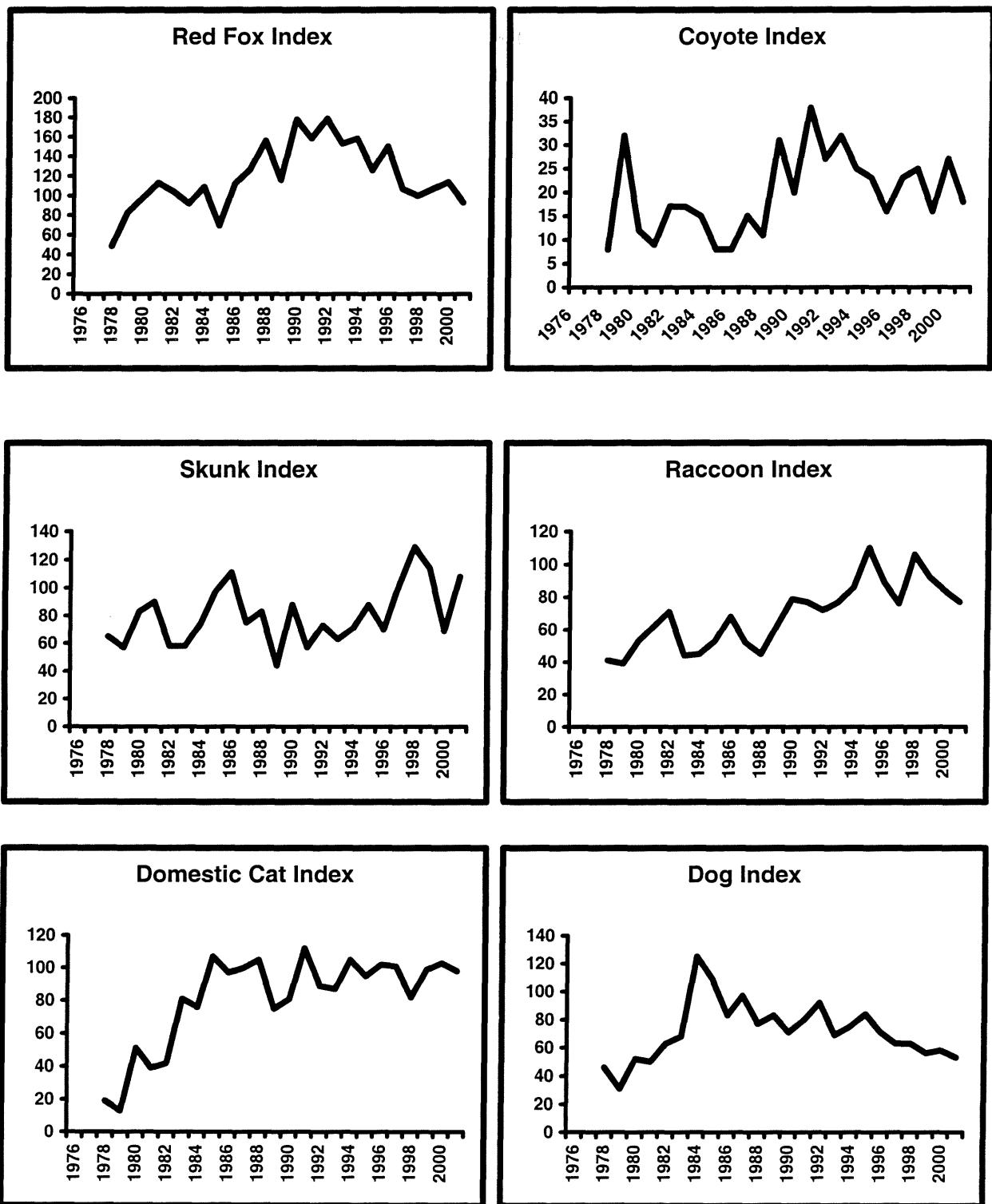


Figure 17. Scent station indices for selected species in the Transition Zone of Minnesota, 1976-2001.

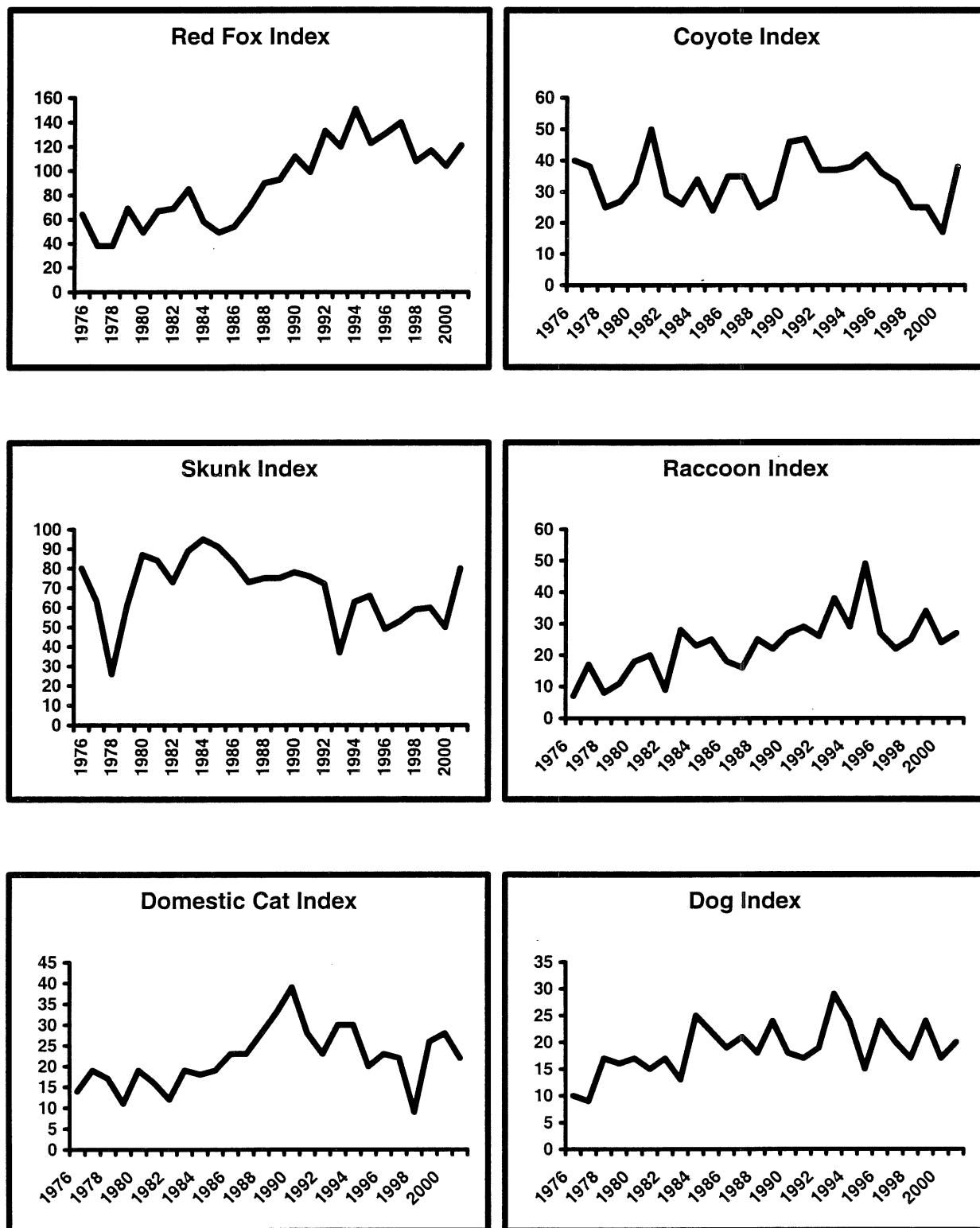


Figure 18. Scent station indices for selected species in the Forest Zone of Minnesota, 1976-2001.

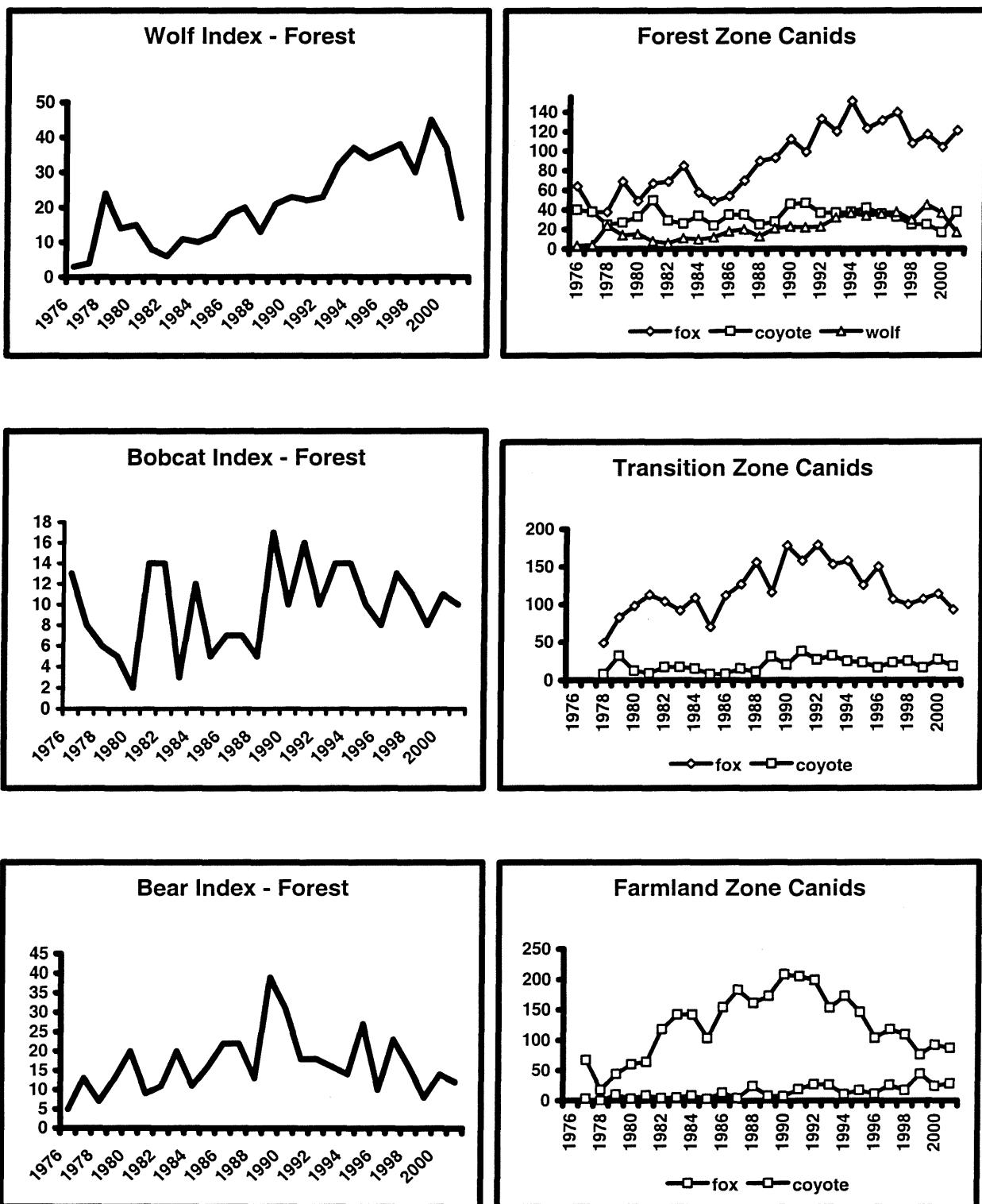
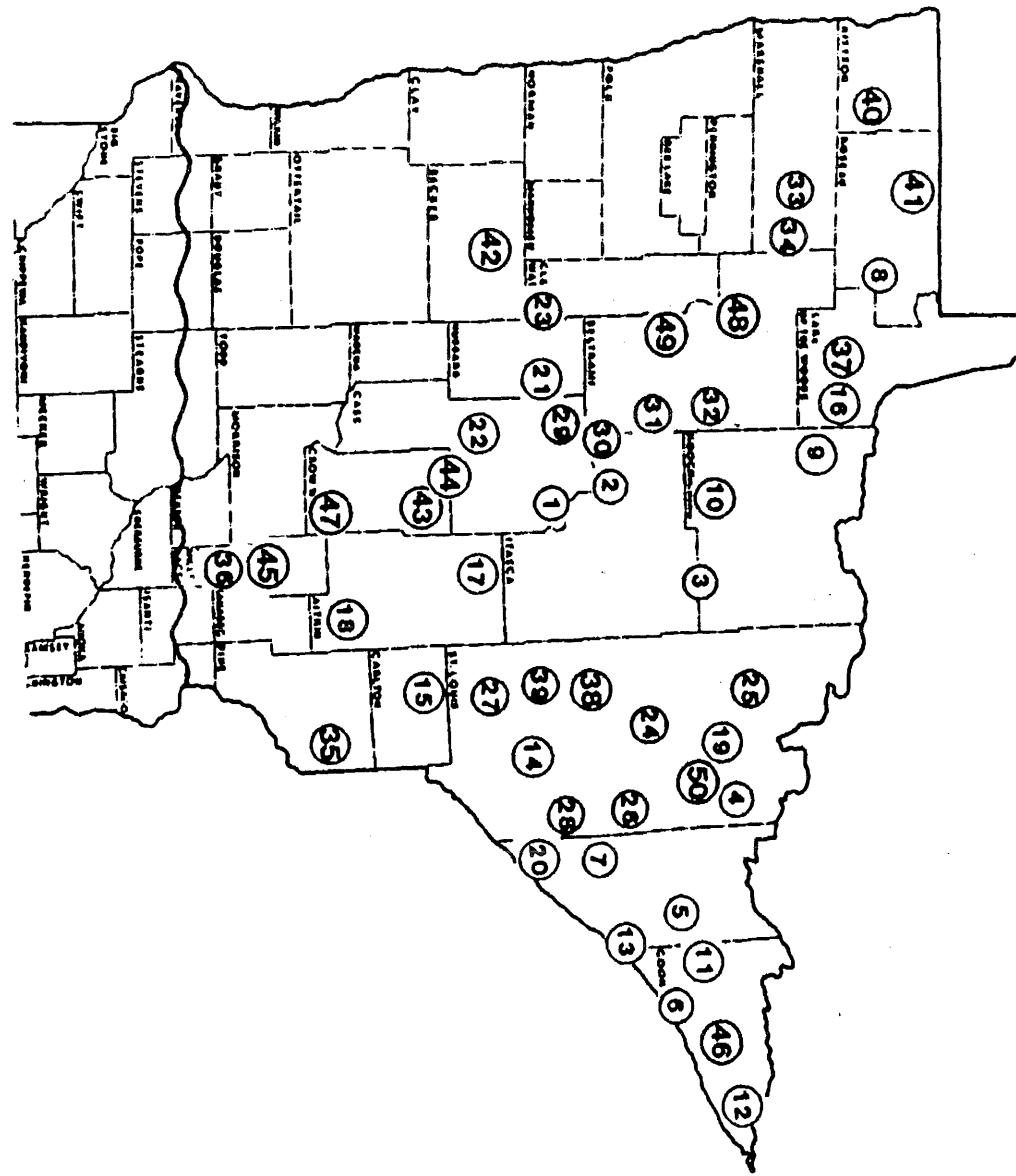
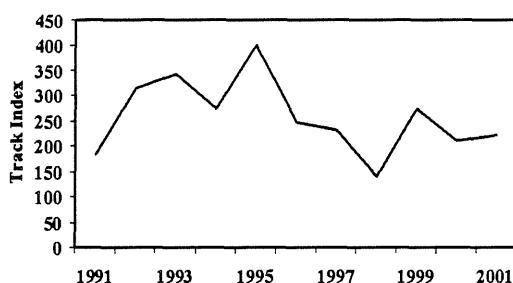


Figure 19. Scent station indices for 1) wolf, bobcat, and bear in the Forest Zone, and 2) multiple canids in the Forest, Transition, and Farmland Survey Zones, 1976-2001.

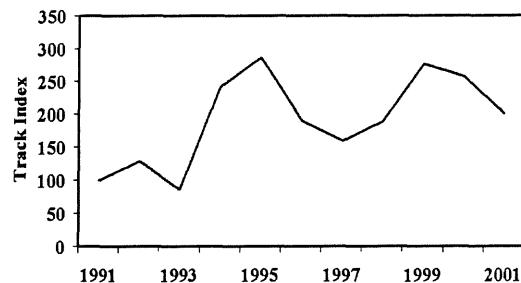
Figure 20. General locations of winter track routes, 2001



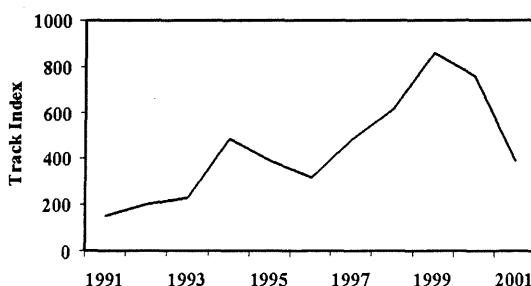
Marten Winter Track Indices, 1991-2001



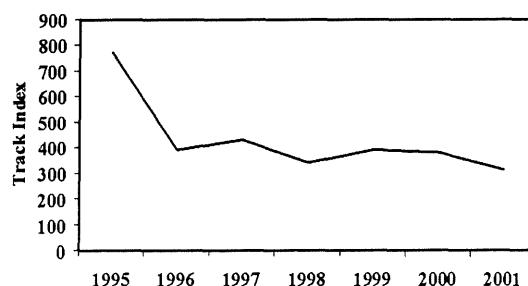
Fisher Winter Track Indices, 1991-2001



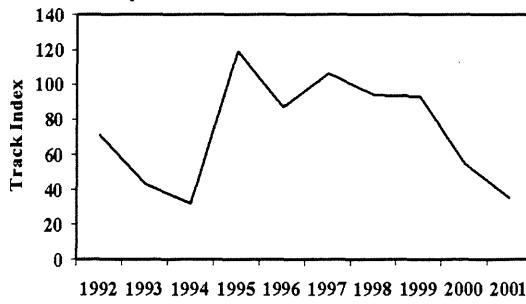
Fox Winter Track Indices, 1991-2001



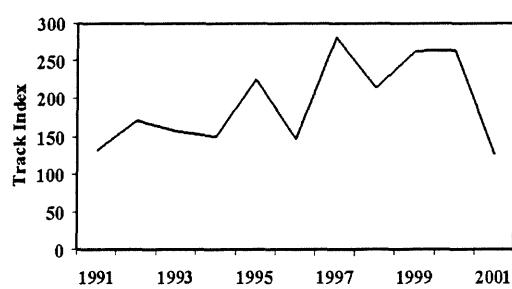
Weasel Winter Track Indices, 1995-2001



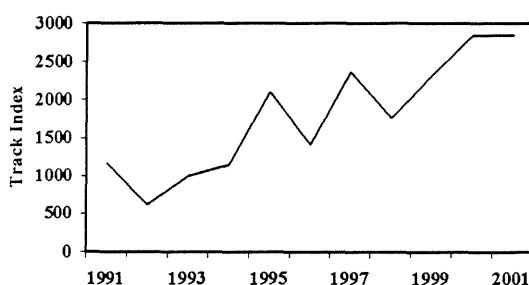
Coyote Winter Track Indices, 1992-2001



Wolf Winter Track Indices, 1991-2001



Snowshoe Hare Winter Track Index, 1991-2001



Bobcat Winter Track Indices, 1994-2001

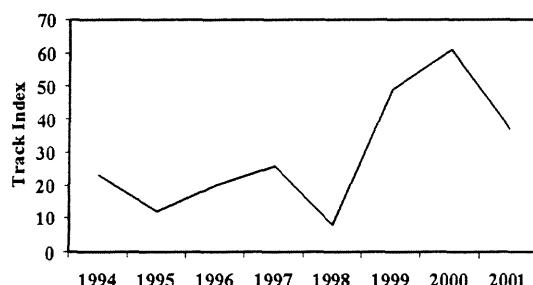


Figure 21. Winter track indices (northern Minnesota only) for 8 species, 1991-2001.

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

Table 11. Mean number of ruffed grouse drums per stop by census zone, 1961-2002.

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

RUFFED GROUSE 2001-2002

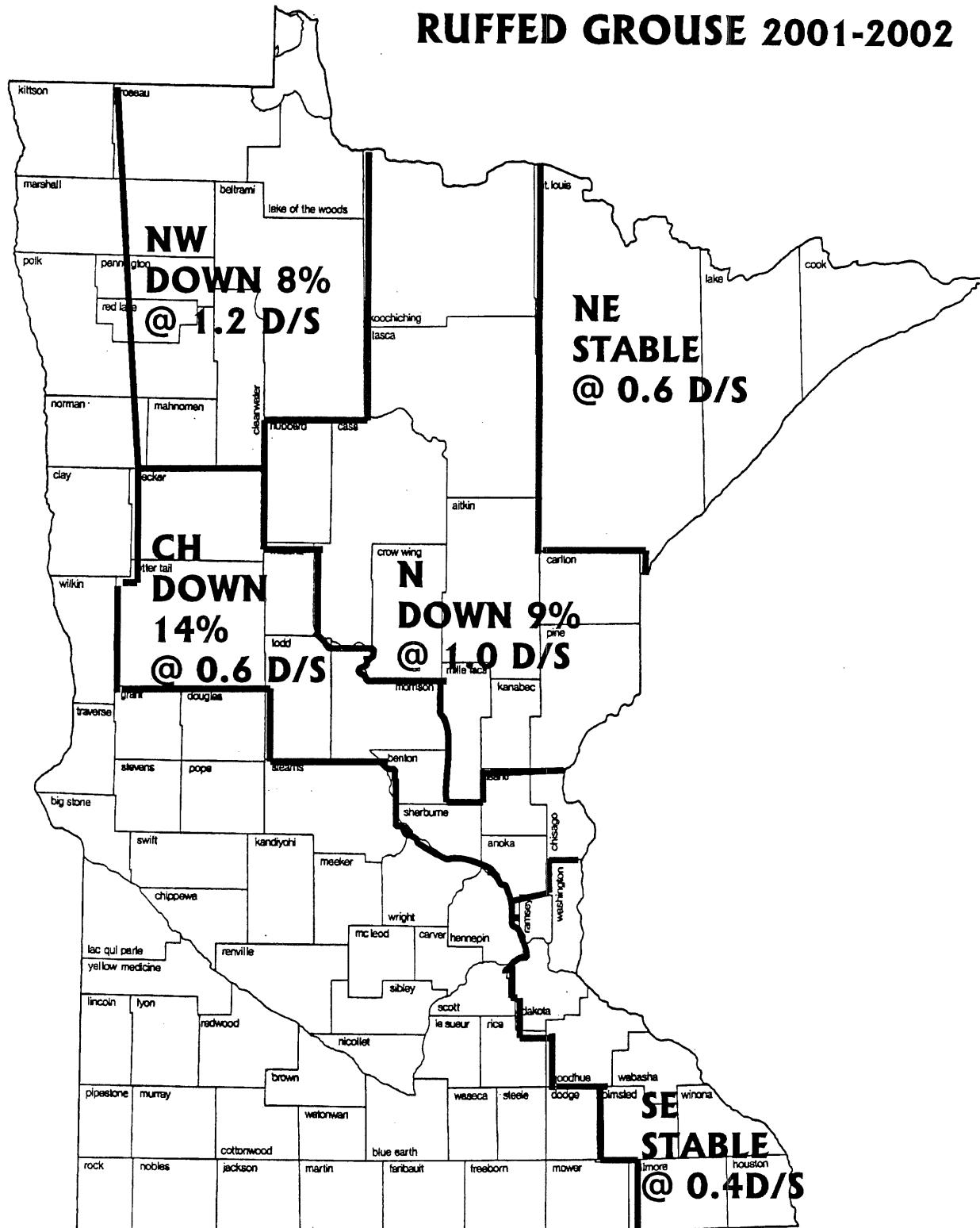


Figure 22. Changes in average numbers of ruffed grouse drums per stop on roadside counts, 2001-2002.

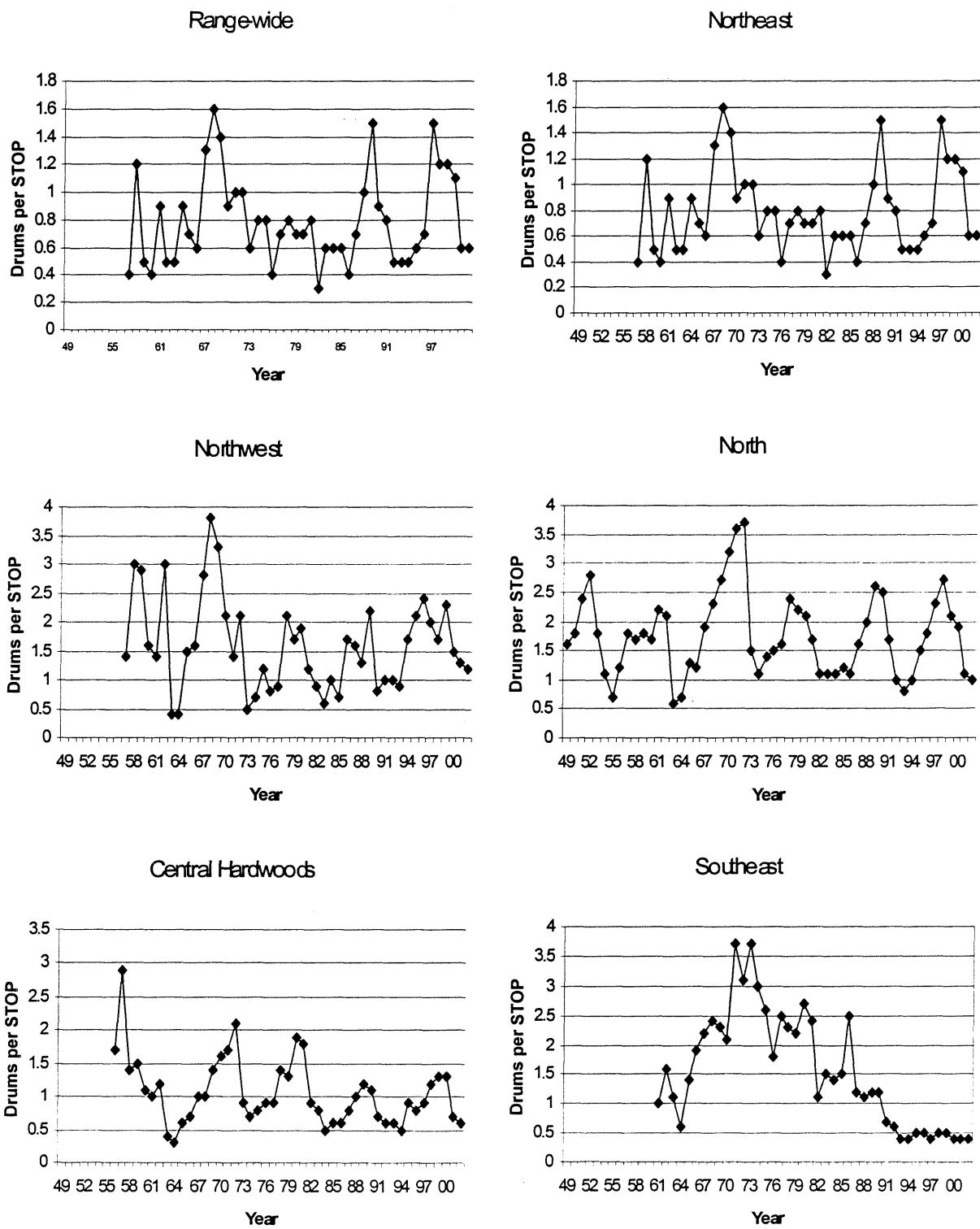


Figure 23. Summary of ruffed grouse drumming trends range-wide and in each of five survey zones, 1949-2002.

SHARP-TAILED GROUSE 2001-2002

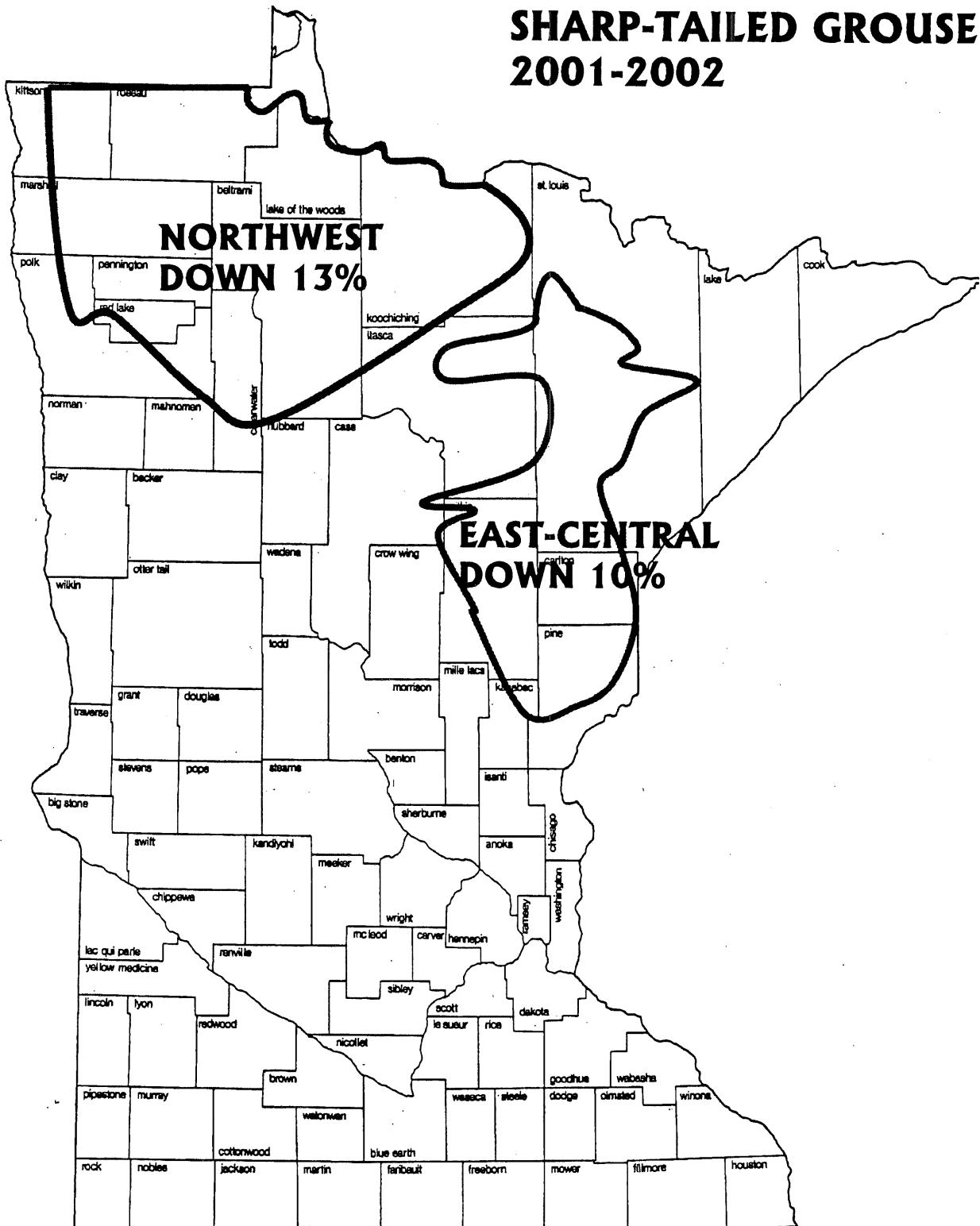


Figure 24. Changes in male sharp-tailed grouse counted on comparable dancing grounds in the Northwest and East-central ranges, 2001-2002.

Table 12. Number of snowshoe hares seen per 100 km of ruffed grouse drumming routes in the North, Northwest, and Northeast survey zones, 1974-2002.

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

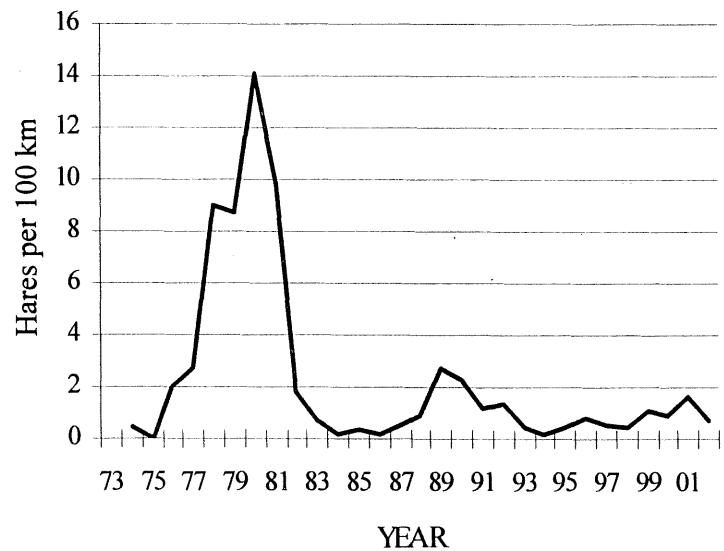


Figure 25. Snowshoe hare index (hares/100 km) based on hares seen on northern ruffed grouse drumming routes in Minnesota, 1974-2002.

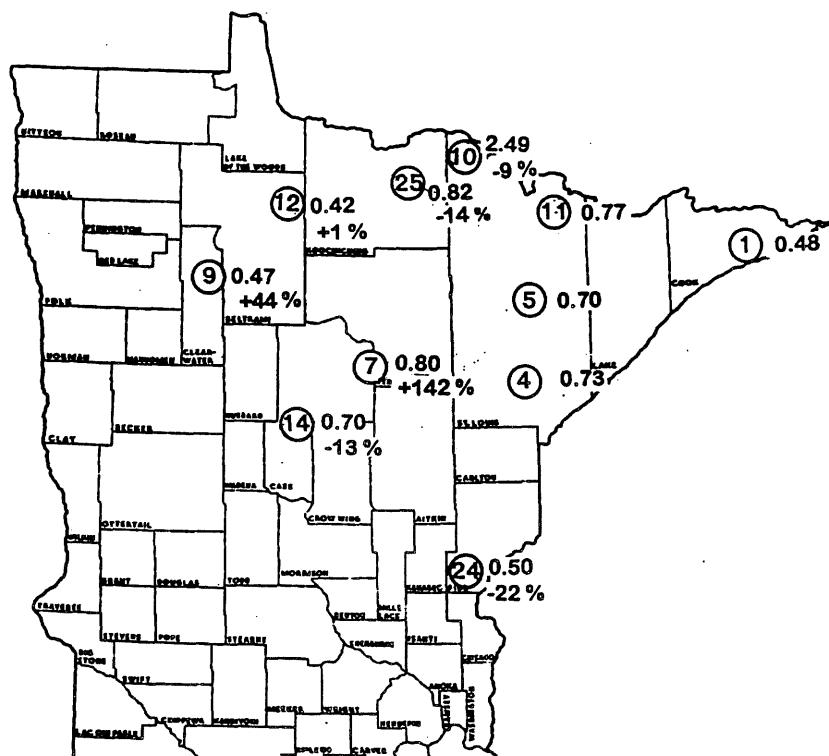


Figure 26. Approximate locations of the aerial beaver routes (route numbers circled), live colonies per mile (LC/M) in 2002, and percent change from 2001.

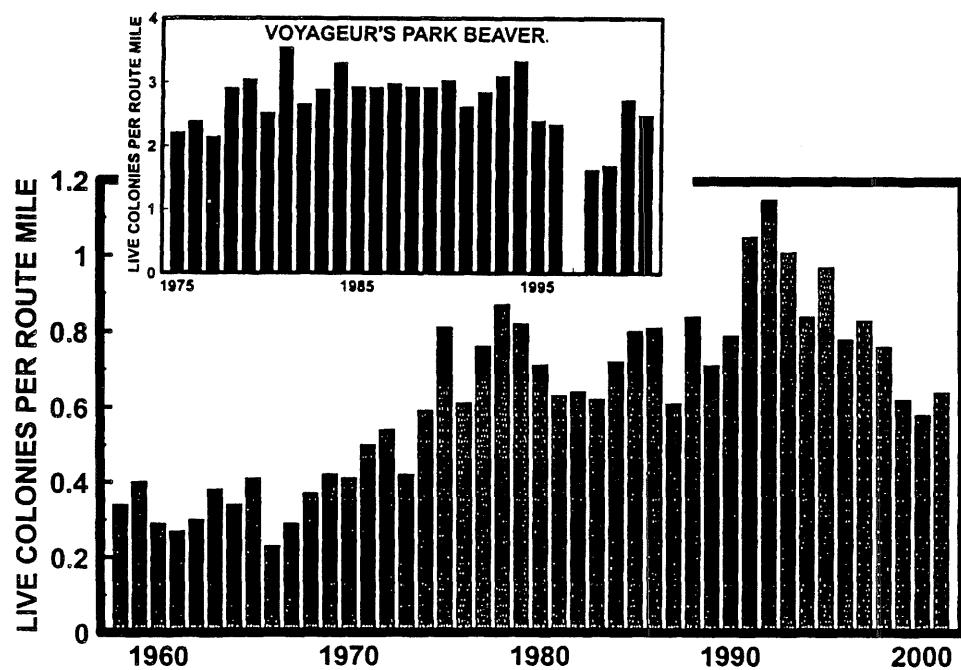


Figure 27. Average range-wide live colonies/mile of beaver survey route, 1958-2002(excluding route 10, and VNP). Inset shows results for route 10, 1975-2002.

Table 13. Live beaver colonies per mile of census route in northern Minnesota, 1989-2001.

Number	Route name	Year												1995-2000 Mean	
		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000		
1	Cascade	0.43	0.44	1.13	1.50	0.68	0.43	1.51	0.90	-	0.81	0.28	-	0.48	0.88
2	Kawishiwi	0.47	0.80	1.03	1.08	-	-	-	-	-	-	-	-	-	-
3	Itasca	0.56	0.45	0.92	1.09	-	-	-	-	-	-	-	-	-	-
4	South St. Louis	-	0.92	1.35	0.87	0.70	0.57	0.78	0.64	0.88	0.63	0.58	-	0.73	0.70
5	Central St. Louis	0.83	0.81	1.12	1.02	0.98	1.06	0.89	0.88	1.02	0.98	0.82	-	0.70	0.92
6	Carlton & Pine	-	1.06	1.50	1.09	-	-	-	-	-	-	-	-	-	-
7	Cass	0.84	0.98	1.16	1.62	1.14	1.00	0.82	0.79	0.80	0.98	0.66	0.33	0.80	0.73
8	Balsam-Hennepin	0.59	0.46	0.61	-	-	-	-	-	-	-	-	-	-	-
9	Pinewood-Mississippi	0.36	0.49	0.41	-	0.79	0.40	0.64	0.37	0.35	0.26	0.42	0.33	0.47	0.40
10	Kabetogama Peninsula	2.92	3.3	2.62	2.85	3.10	3.33	2.40	2.34	-	1.62	1.69	2.73	2.49	2.16
11	Ely-Finger Lakes	1.09	1.20	1.67	1.35	1.40	1.52	1.45	0.83	1.36	1.29	0.85	-	0.77	1.16
12	Hay Creek-Kelliher	0.56	0.46	0.58	0.78	0.84	0.36	0.64	0.50	0.50	0.38	0.62	0.40	0.42	0.51
13	Cook County Transect	0.68	0.38	1.18	0.83	-	-	-	-	-	-	-	-	-	-
14	Cass-Crow Wing	0.89	0.87	0.96	0.88	0.75	0.77	0.65	0.62	0.55	0.64	0.71	0.81	0.70	0.66
15	Little Willow-Aitkin	0.59	0.63	0.68	-	-	-	-	-	-	-	-	-	-	-
16	East Aitkin County	0.80	-	-	-	-	-	-	-	-	-	-	-	-	-
17	West Vermilion	-	1.29	-	1.25	-	-	-	-	-	-	-	-	-	-
18	Blackduck	-	1.24	-	1.55	-	-	-	-	-	-	-	-	-	-
19	Splitrock	0.53	0.73	2.42	1.80	-	-	-	-	-	-	-	-	-	-
20	Isabella	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	Red Lake-Pine Island	0.36	0.33	0.51	0.56	-	-	-	-	-	-	-	-	-	-
22	Northome	-	1.14	0.78	1.08	-	-	-	-	-	-	-	-	-	-
23	Kanabec County	0.94	0.81	0.58	0.77	-	-	-	-	-	-	-	-	-	-
24	Southern Pine	1.03	0.93	0.89	1.15	0.86	0.86	0.67	0.83	0.75	0.73	0.66	0.64	0.50	0.71
25	Koochiching North	1.15	1.05	1.43	1.62	2.00	1.58	1.65	1.46	1.28	0.90	0.65	0.95	0.82	1.15

BOBCATS

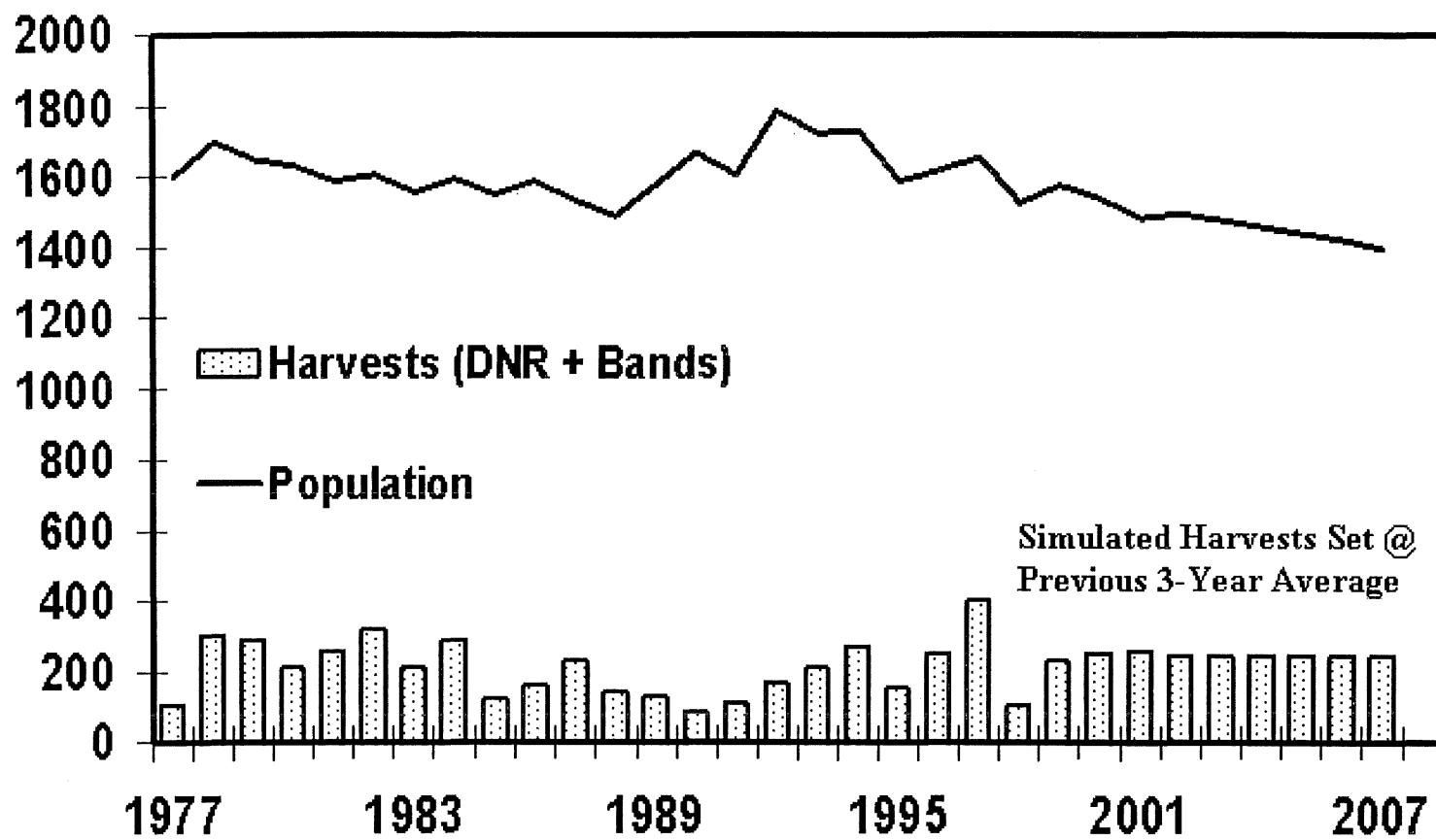


Figure 28. Population modeling summaries for bobcat in Minnesota, 1977-2007.

Table 14. Bobcat harvest, age structure, and population index data in Minnesota, 1985 to 2001.

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Season	11/30-1/19	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
Limit	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Registered take	119	160	214	140	129	84	106	167	201	238	134	223	364	103	206	231	256
% autumn pop. taken ¹	6	8	11	8	6	5	6	9	11	14	9	13	20	6	12	13	13
Carcasses examined	99	132	163	114	119	62	93	151	161	187	96	164	270	77	163	183	213
% juveniles	33	26	33	49	39	20	35	28	32	26	31	35	35	29	18	31	30
% 1.7 yrs. old	19	17	16	18	17	34	33	22	20	16	15	20	16	26	24	26	21
% ≥ 2.7 yrs. old	48	57	51	42	44	46	32	50	48	58	54	45	49	45	58	43	49
Juv.:≥2.7 yr. females	1.2	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
% male juveniles	41	53	44	58	49	58	59	55	51	64	57	51	60	59	55	54	52
% male 1.7 yrs.	41	32	52	62	53	80	55	45	45	43	71	30	37	60	59	59	51
% male ≥ 2.7 yrs.	43	51	48	46	56	44	70	53	52	45	79	49	43	60	62	50	53
Overall % males	42	51	48	54	53	59	61	53	50	50	71	46	48	60	60	53	52
Mean pelt price	\$70	\$120	\$101	\$68	\$48	\$43	\$37	\$28	\$43	\$36	\$34	\$33	\$30	\$28	\$24	\$33	\$46
Scent post index ²	5	8	7	5	17	10	16	10	14	14	10	9	8	11	8	11	10
Snowshoe hare index ³	0.2	0.5	0.9	2.7	2.3	1.2	1.4	0.5	0.2	0.5	0.8	0.6	0.4	1.1	0.90	1.68	0.75

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

² index for autumn prior to harvest season

³ number of snowshoe hares seen per 100 m of ruffed grouse routes during the spring after the bobcat season

OTTER

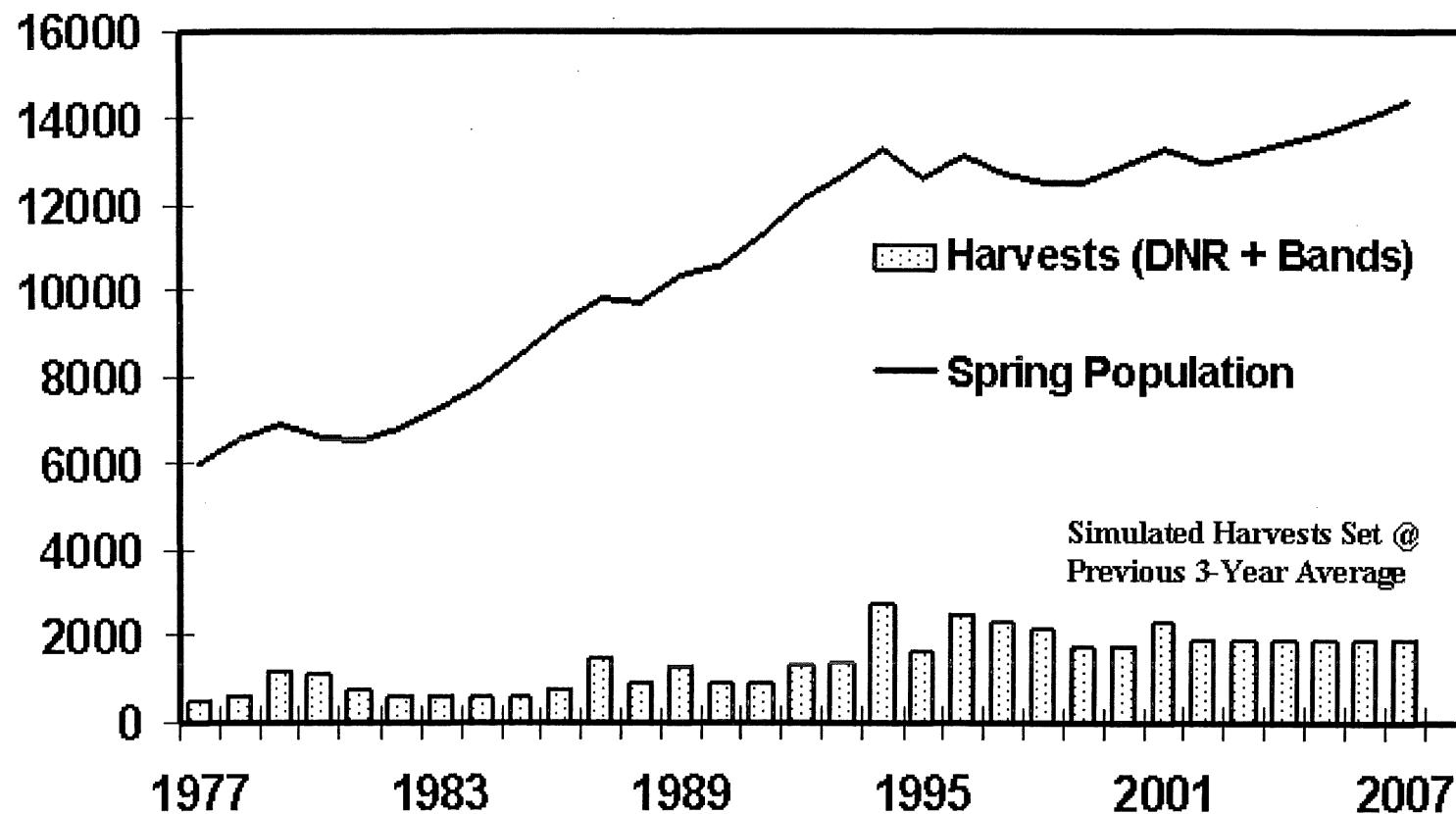


Figure 29. Population modeling summaries for otter in Minnesota, 1977-2007.

Table 15. Otter harvest, carcass collection, and pelt price data in Minnesota, 1986-2001. Carcasses were not collected after 1986.

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Season dates	10/24-11/29	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
Limit	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4
Registered harvest	777	1,386	922	1,294	903	855	1,365	1,454	2,445	1,435	2,219	2,145	1,946	1,635	1,578	2,314
% of autumn pop. harvested ^a	11	20	12	17	13	13	17	18	22	14	21	16	16	13	12	17
No. of carcasses examined	745	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
% juveniles	45.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
% yearlings	23.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
% male juveniles	45.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
% males ≥ 1.7 yrs.	48.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mean pelt prices:																
Otter	\$24	\$23	\$22	\$22	\$24	\$25	\$29	\$43	\$48	\$38	\$39	\$40	\$34	\$41	\$51	\$46
Beaver (fall)	\$20	\$17	\$14	\$12	\$9	\$9	\$7	\$11	\$14	\$13	\$19	\$16	\$11	\$12	\$15	\$13

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

FISHER

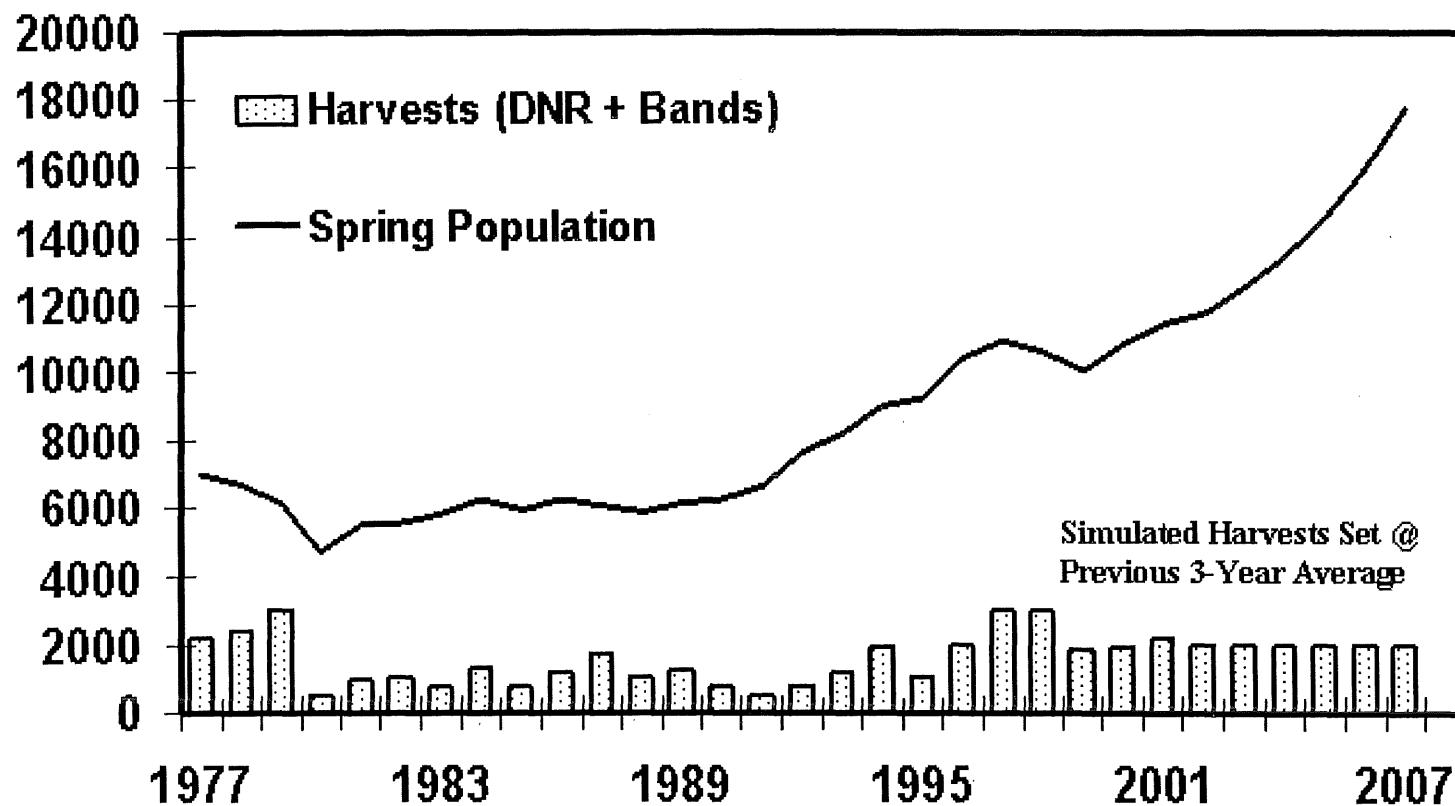


Figure 30. Population modeling summaries for fisher in Minnesota, 1977 - 2007.

Table 16. Fisher harvest, carcass collection, and pelt price data in Minnesota, 1984-2001. Carcass collection ended in 1994.

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Season	12/1- 12/16	11/30- 12/15	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
Limit	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	4 ⁴	4 ⁴	
Registered Harvest	1285	678	1068	1642	1025	1243	746	528	777	1158	1771	942	1773	2,761	2,695	1,725	1674	2145
% of available fall population harvested ¹	19	11	17	24	16	15	11	7	10	12	18	10	18	26	25	13	13	16
No. carcasses examined ²	1270	712	1186	1534	805	1024	592	410	629	937	1360	---	---	---	---	--	--	
% juveniles	63	63	59	53	70	64	65	66	54	59	56	---	---	---	---	--	--	
% 1.7 yrs.	20	20	24	15	15	19	14	21	25	22	18	---	---	---	---	--	--	
% ≥ 2.7 yrs.	17	18	18	22	15	17	21	13	21	19	26	---	---	---	---	--	--	
Juv.:adult female ratio	7.2:1	5.4:1	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	52	46	48	46	48	47	44	50	42	47	47	---	---	---	---	--	--	
% male 1.7 yrs.	45	40	50	40	45	47	55	52	55	37	54	---	---	---	---	--	--	
% male ≥ 2.7 yrs.	45	34	37	37	33	36	30	35	45	42	44	---	---	---	---	--	--	
% males overall	49	43	46	43	45	45	43	48	46	44	48	---	---	---	---	--	--	
Pelt price: males	\$70	\$74	\$84	\$84	\$54	\$26	\$35	\$21	\$16	\$14	\$19	\$16	\$25	\$31	\$19	\$19	\$20	\$23
females	\$122	\$130	\$162	\$170	\$100	\$53	\$46	\$48	\$29	\$28	\$30	\$25	\$34	\$34	\$22	\$20	\$19	\$23
Snowshoe hare index ³	0.4	0.2	0.5	0.9	2.7	2.3	1.2	1.4	0.5	0.2	0.5	0.8	0.6	0.4	1.1	0.9	1.68	0.75

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 number of snowshoe hares seen per 100 km of ruffed grouse drumming route during the spring after fisher season.

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

MARTEN

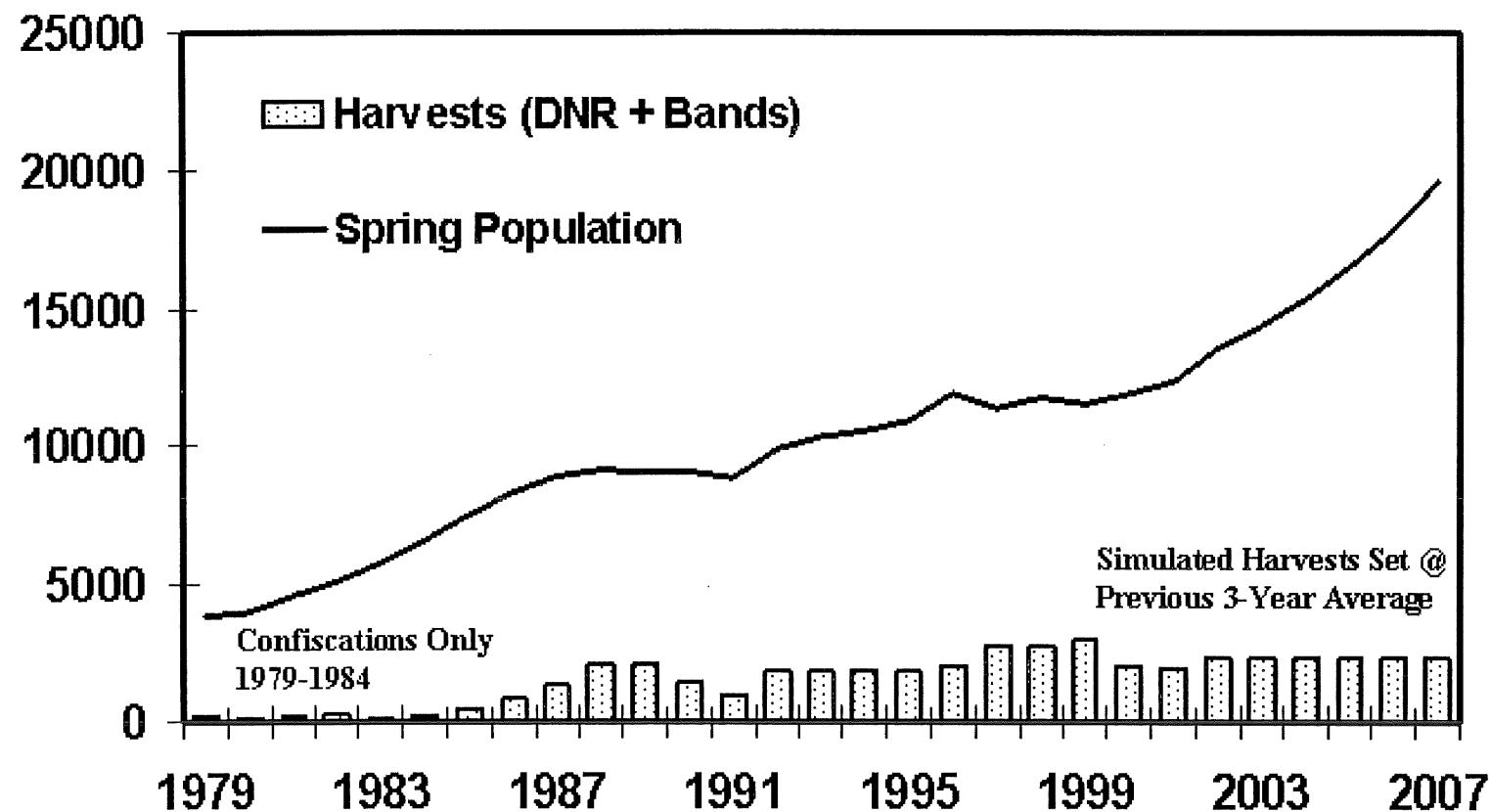


Figure 31. Population modeling summaries for pine marten in Minnesota, 1979 - 2007.

Table 17. Pine marten harvest, carcass collection, and pelt price data in Minnesota, 1987-2001.

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Season	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
Limit	1	2	2	2	1	2	2	2	2	2	2	2	4 ³	4 ⁴	4 ⁴
Registered take	1,363	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
% of available fall population harvested ¹	15	19	20	15	11	15	15	15	13	16	21	20	18	14	17
No. carcasses examined ²	1,754	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
% juveniles	66	66	68	48	74	65	57	58	60	48	61	57	67	56	62
% 1.7 yrs.	18	11	12	18	9	18	20	15	18	22	13	18	12	25	15
% ≥ 2.7 yrs.	16	23	20	34	17	17	23	27	22	30	26	25	21	19	23
juv.:adult female ratio	11.2:1	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
% male juveniles	65	58	57	59	69	63	61	62	63	62	60	62	65	62	66
% male 1.7 yrs.	67	50	63	54	71	70	71	76	68	69	60	66	66	69	73
% male ≥ 2.7 yrs.	75	66	65	61	72	75	67	67	66	67	63	65	67	66	75
% males overall	67	59	59	59	70	66	64	66	65	65	61	63	66	64	69
Pelt price: male	\$43	\$50	\$48	\$44	\$40	\$28	\$36	\$34	\$28	\$34	\$28	\$20	\$25	\$28	\$24
female	\$39	\$43	\$47	\$41	\$27	\$25	\$30	\$28	\$21	\$29	\$22	\$16	\$21	\$21	\$23

¹ estimated from population model, includes accidental harvests of 40% 1985-1987 and 1991, of 20% 1988-1990 and 1992-1998, and of 10% in 1999

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.

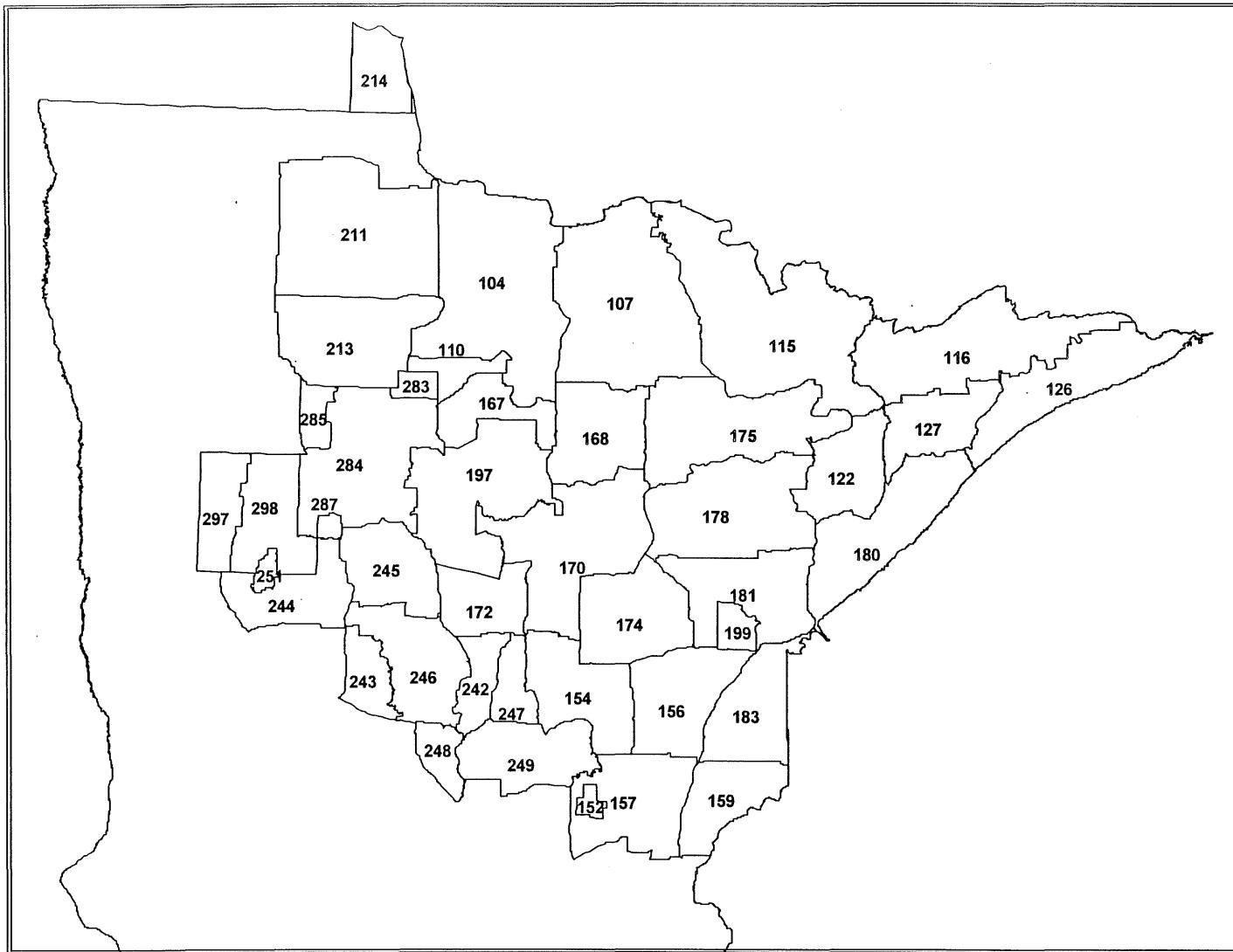


Figure 32. Antlerless deer permit areas in the Forest zone. In 2002, permit area 242 was created out of the western half of the old permit area 247.

Table 18. Spring (pre-fawning) white-tailed deer density as simulated from modeling in each permit area in Minnesota's Forested zone, 1989-2002.

Permit Area	Area (sq. mi.)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	% Change
104	2078	6	7	7	8	7	7	8	5	3	5	5	5	6	7	14%
107	1895	7	8	8	8	7	8	7	5	4	6	7	8	8	8	7%
110	198	17	20	22	24	22	24	26	17	13	17	17	17	16	15	-4%
115	1872	15	17	17	18	17	15	16	12	11	13	14	16	15	16	9%
116	1158	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10%
122	620	9	10	10	9	8	7	7	5	5	6	6	7	7	8	13%
126	940	4	4	4	4	3	3	3	2	2	3	3	4	3	4	12%
127	562	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18%
152	61	18	17	17	16	17	16	17	15	13	15	15	16	16	17	6%
154	761	15	16	17	16	15	14	15	13	13	15	17	19	18	19	3%
156	826	14	15	15	14	13	12	12	11	10	12	13	14	14	16	10%
157	890	18	22	24	22	18	18	20	19	17	20	22	24	24	25	4%
159	568	19	21	22	18	17	18	19	18	17	20	22	23	21	22	2%
167	440	23	26	28	31	27	29	30	20	15	19	20	22	23	24	7%
168	724	15	16	17	17	15	13	12	9	9	12	14	16	15	17	13%
170	1315	13	14	14	14	12	10	10	8	8	10	12	14	13	13	4%
172	451	26	30	32	33	31	29	30	26	25	30	36	39	35	35	-1%
174	835	13	13	13	13	11	10	10	8	7	9	10	12	11	12	11%
175	1266	11	12	12	12	11	10	11	8	7	9	10	11	11	12	7%
178	1264	11	11	11	11	10	10	10	7	7	8	10	11	11	11	9%
180	1059	10	10	9	9	8	8	8	6	5	7	8	9	9	10	13%
181	1009	11	12	13	12	12	11	12	9	8	10	11	13	12	13	6%
183	707	14	15	16	16	15	15	16	12	11	13	15	16	15	15	1%
197	960	11	11	11	11	10	10	10	7	6	7	8	9	9	10	11%
211	1831	5	6	6	7	6	6	7	4	3	4	4	5	6	6	10%
242	209	18	21	25	27	30	31	36	35	33	40	46	54	57	67	17%
243	314	22	26	30	31	30	28	30	27	24	27	30	33	31	31	2%
244	586	21	25	29	32	30	29	31	23	20	24	27	30	31	33	6%
245	583	19	22	25	27	24	23	24	18	17	21	25	28	28	29	4%
246	758	22	25	26	25	24	25	23	20	23	25	28	26	26	26	0%
247	229	15	18	20	23	25	27	30	30	28	34	41	48	51	60	19%
248	213	14	17	18	19	19	18	19	16	14	17	19	20	19	20	7%
249	502	11	13	15	16	15	14	15	14	12	15	17	19	18	19	6%
251	56	32	34	34	35	33	31	32	25	22	26	28	31	34	38	9%
284	1531	15	17	19	21	19	19	19	13	11	14	17	19	19	21	8%
297	439	3	3	3	3	3	3	3	2	2	2	3	3	3	3	7%
298	620	13	13	13	14	14	14	15	11	9	11	12	13	13	14	8%

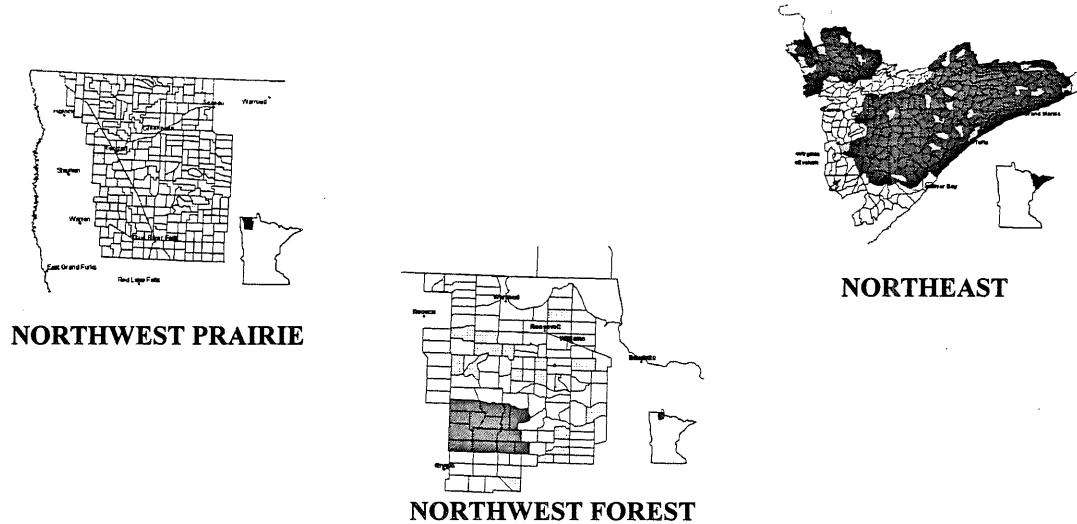


Figure 33. Aerial moose survey area boundaries.

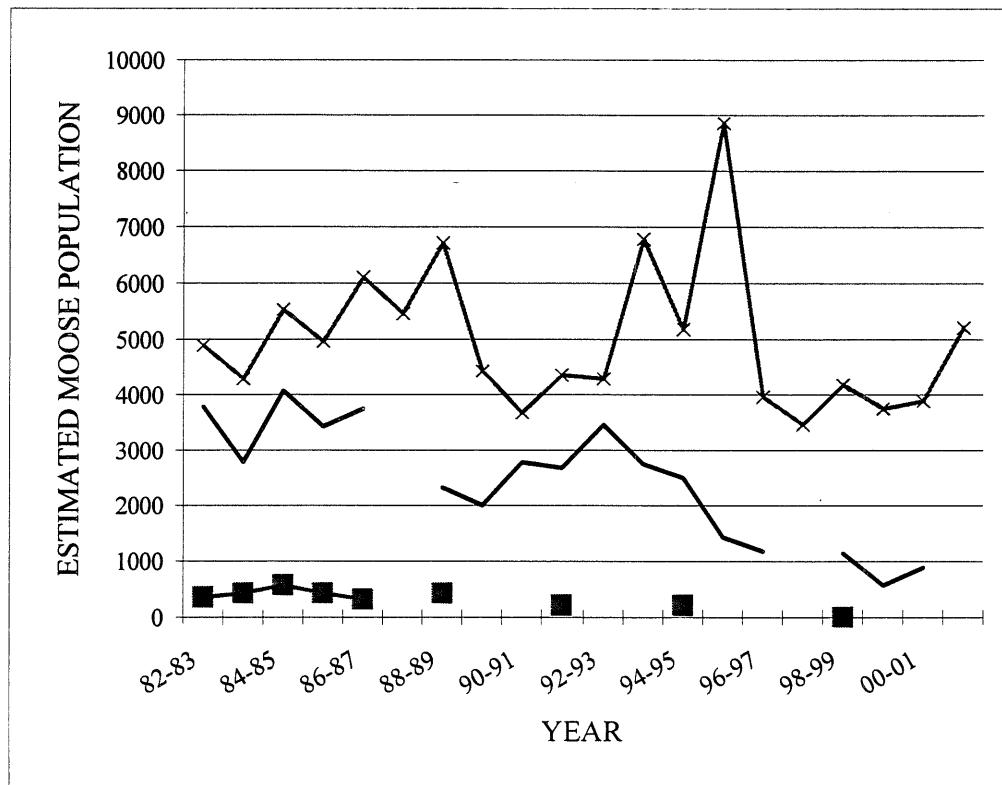


Figure 34. Moose population trends by survey area in northern Minnesota. Trend lines are broken where survey information was not collected.

Table 19. Moose population estimates from aerial moose survey in Minnesota, 1982-2001.

Year	<u>Population Estimate by Survey Area (+90% CI)</u>		
	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)
change since last survey		+ 26 %	

* 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, 1975-2002.

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

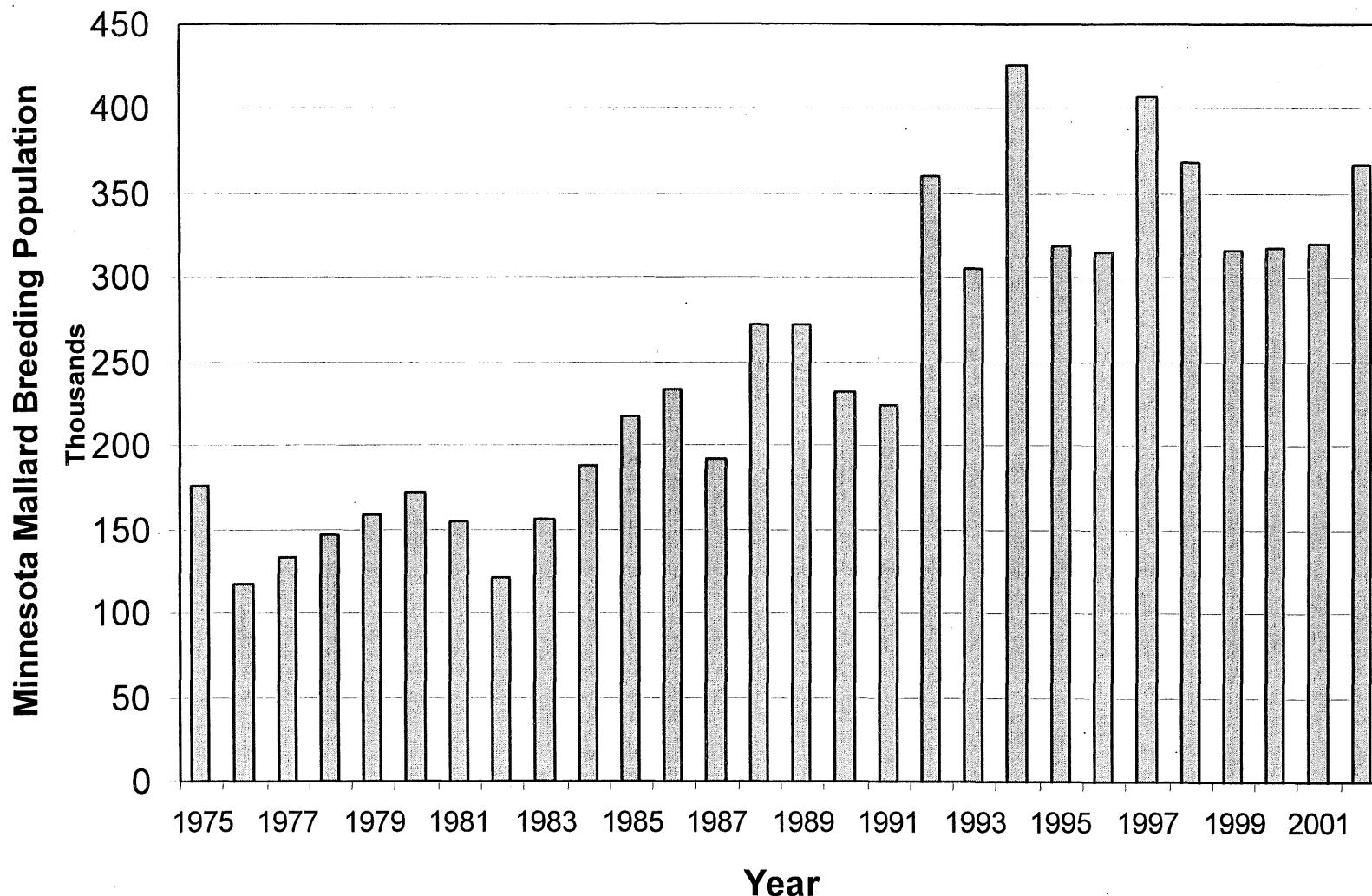


Figure 35. Minnesota mallard Breeding populations, 1975-2002.

Table 21. Estimates of Minnesota Blue-winged teal breeding populations, 1975-2002.

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

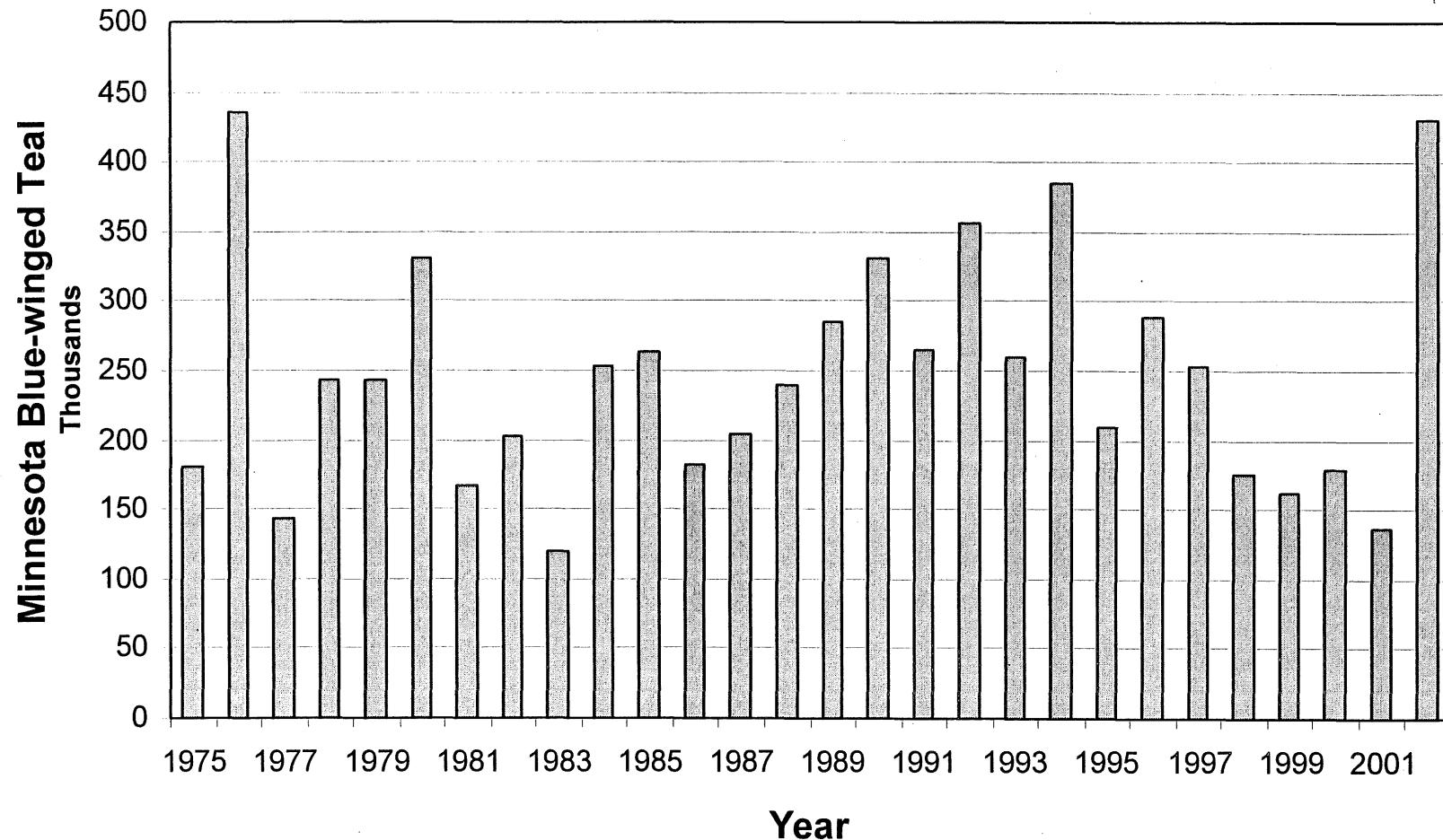


Figure 36. Minnesota blue-winged teal breeding populations, 1975-2002.

Table 22. Canada goose population indices (in thousands) of the eastern prairie flock, 1969-2002 (taken from: U.S. Fish and Wildlife Service/Canadian Wildlife Service, 2002. Waterfowl population status, 2002. July 2002. 51pp).

Year	Population ^{a,b}
1969	107,000
1970	121,000
1971	142,000
1972	151,000
1973	135,000
1974	162,000
1975	234,000
1976	200,000
1977	228,000
1978	132,000
1979	172,000
1980	160,000
1981	162,000
1982	221,000
1983	169,000
1984	195,000
1985	248,000
1986	247,000
1987	257,000
1988	278,000
1989	297,000
1990	295,000
1991	261,000
1992	206,000
1993	332,000
1994	284,000
1995	259,000
1996	256,000
1997	160,000
1998	270,000
1999	275,000
2000	215,000
2001	216,000

^a Surveys conducted in Spring.

^b Indirect or preliminary estimate.

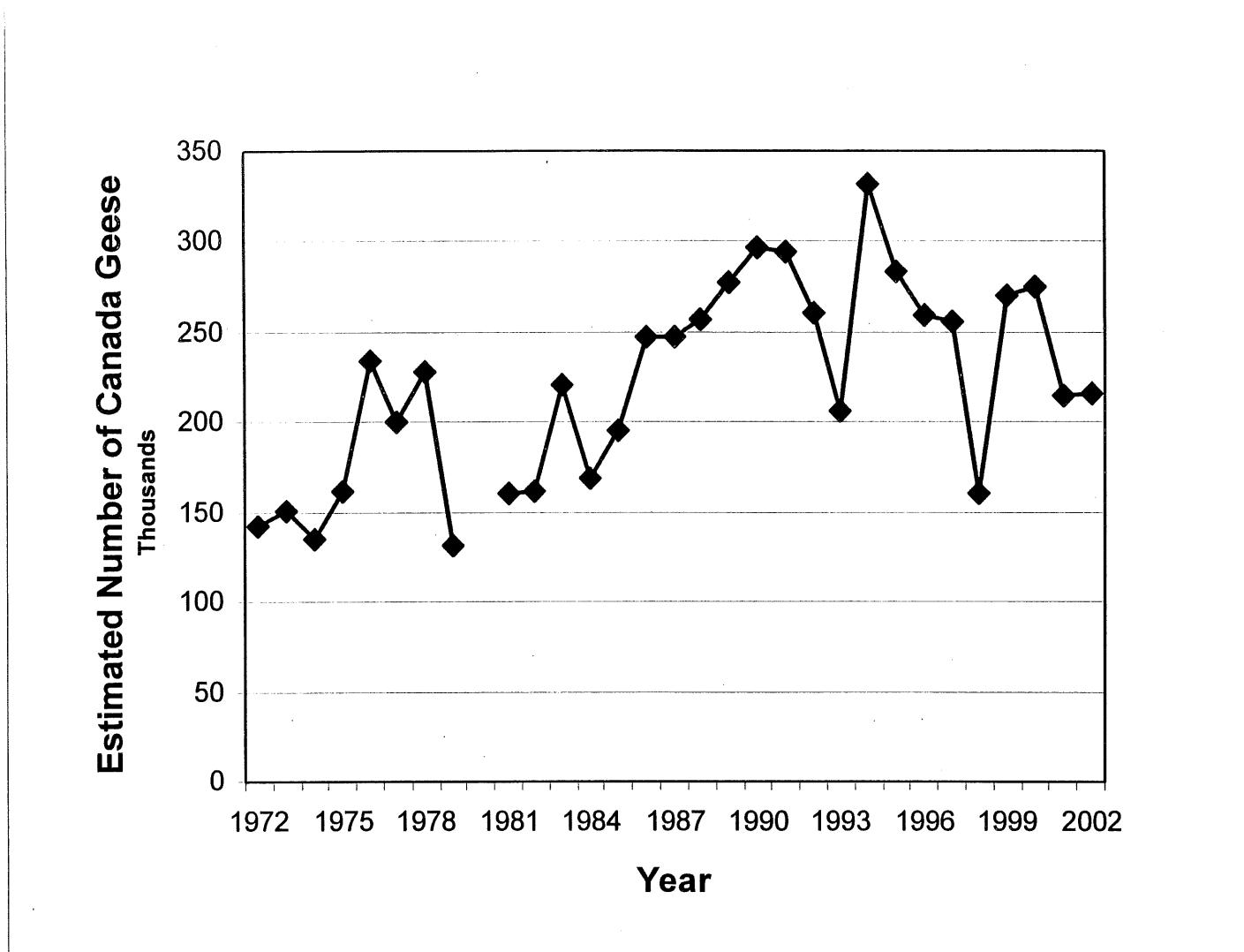


Figure 37. Breeding ground survey estimates of the Eastern Prairie Population of Canada geese, 1972-2002. (from: U.S. Fish and Wildlife Service/Canadian Wildlife Service reports 2002. Waterfowl population status, 2002. July 2002. 51 pp). Surveys conducted in spring. Indirect or preliminary estimates. Data not available for 1980.

Table 23. Estimates for EPP components and the population, 1972-2002. 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). From: 2002 EPP Breeding Population Survey. Humburg, Dale D., Missouri Dept of Conservation; Paul Telander, Minnesota DNR; Brian Lubinski, U.S. Fish and Wildlife Service.

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

1The total EPP estimate and estimate of singles+pairs are derived separately from the estimates of individual components, minor rounding error results.

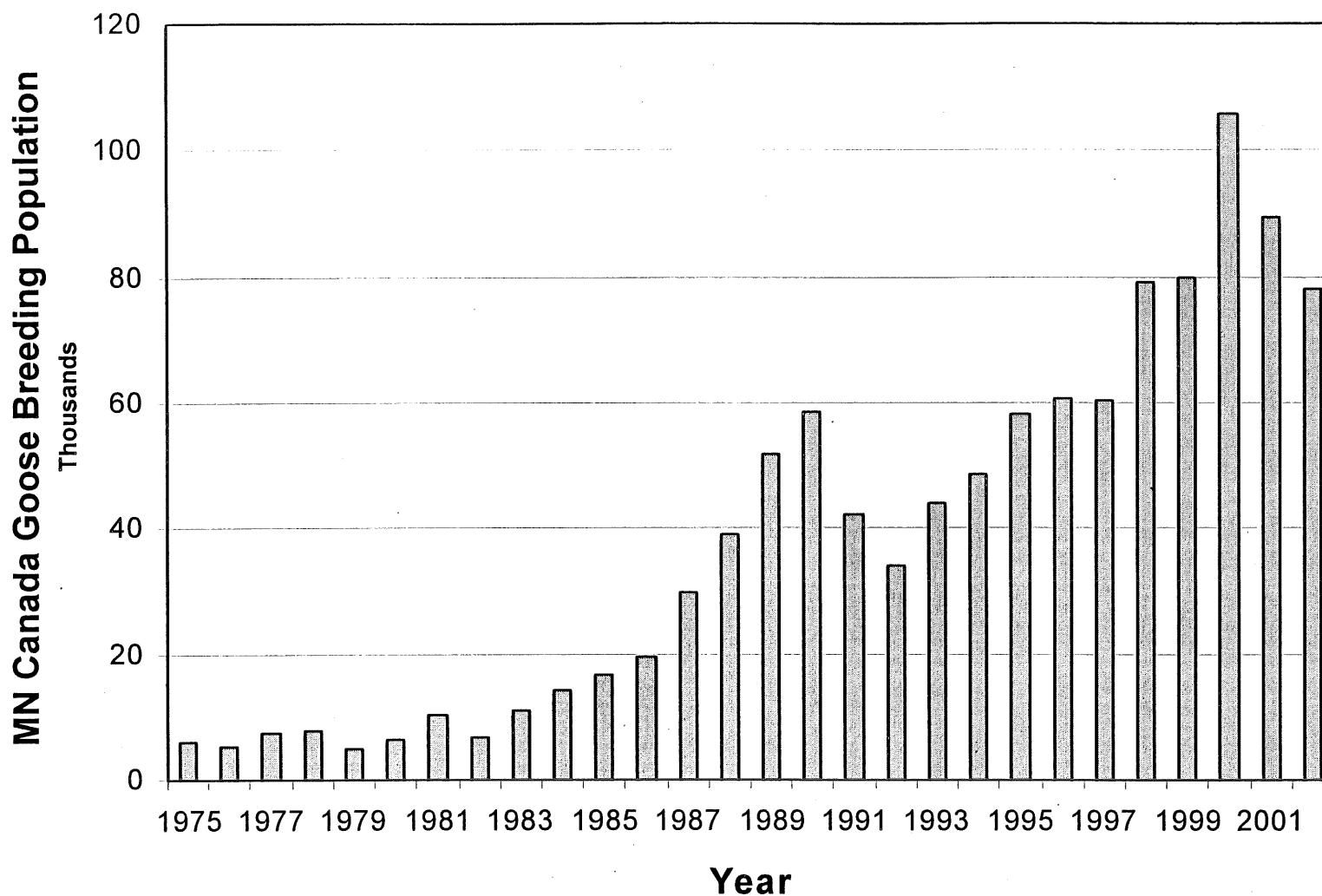


Figure 38. Minnesota Canada goose breeding population, 1975-2002 (from: Lawrence, J.S. 2002 waterfowl breeding population survey for Minnesota. Minnesota Department of Natural Resources and U.S. Fish and Wildlife Service. Unpublished report. 15 pp.)

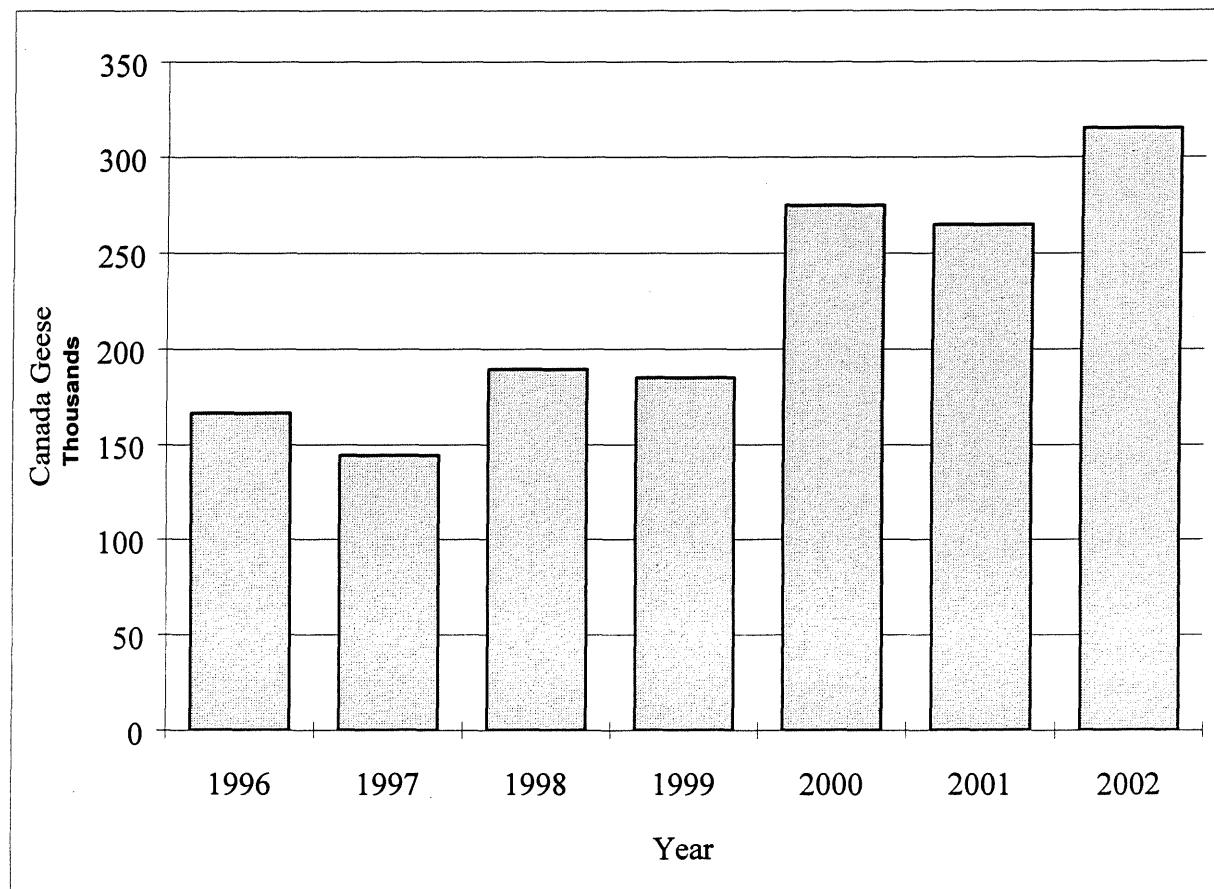


Figure 39. Estimated number of Canada geese in 9 goose management blocks (GMB) 1996-2002. Surveys were from a fixed wing aerial survey during May in Minnesota, 1996-2000. Does not include Metro or Northeast GMBs. 2001and 2002 data are from a helicopter survey during April in Minnesota. Does not include 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) 1961-2002 and north-central U.S. (North Dakota, South Dakota and Montana) 1974-2002. (from: U.S. Fish and Wildlife Service/Canadian Wildlife Service, 2002. Waterfowl population status, 2002. July 2002. 51pp).

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
Average	3,385	1,523
2002	1,439	1,281
% Change in 2002 from:		
2001	- 48	- 32
Long term Average	- 57	- 16

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

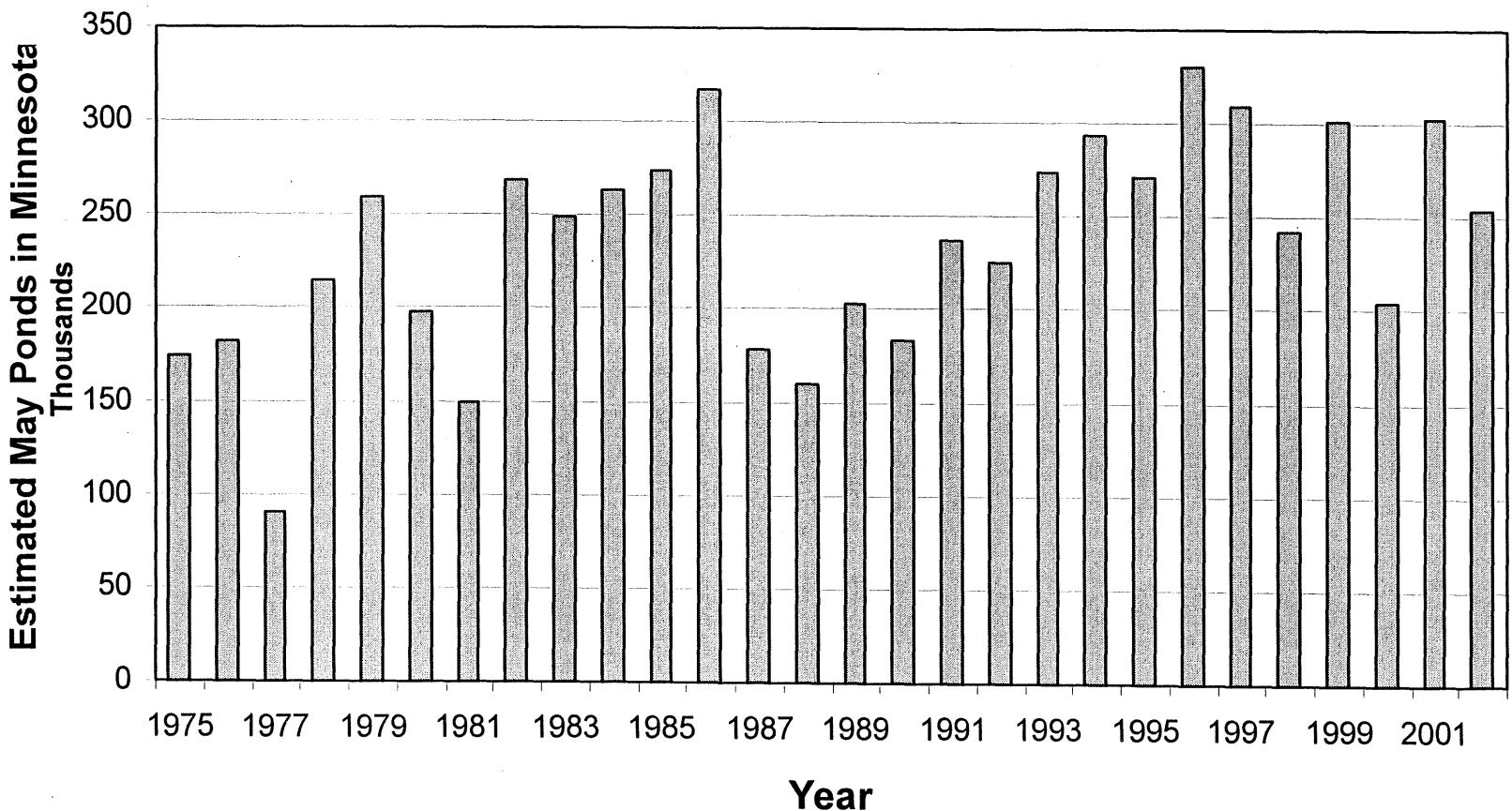


Figure 40. Estimated number of May ponds for Minnesota, 1975-2002.

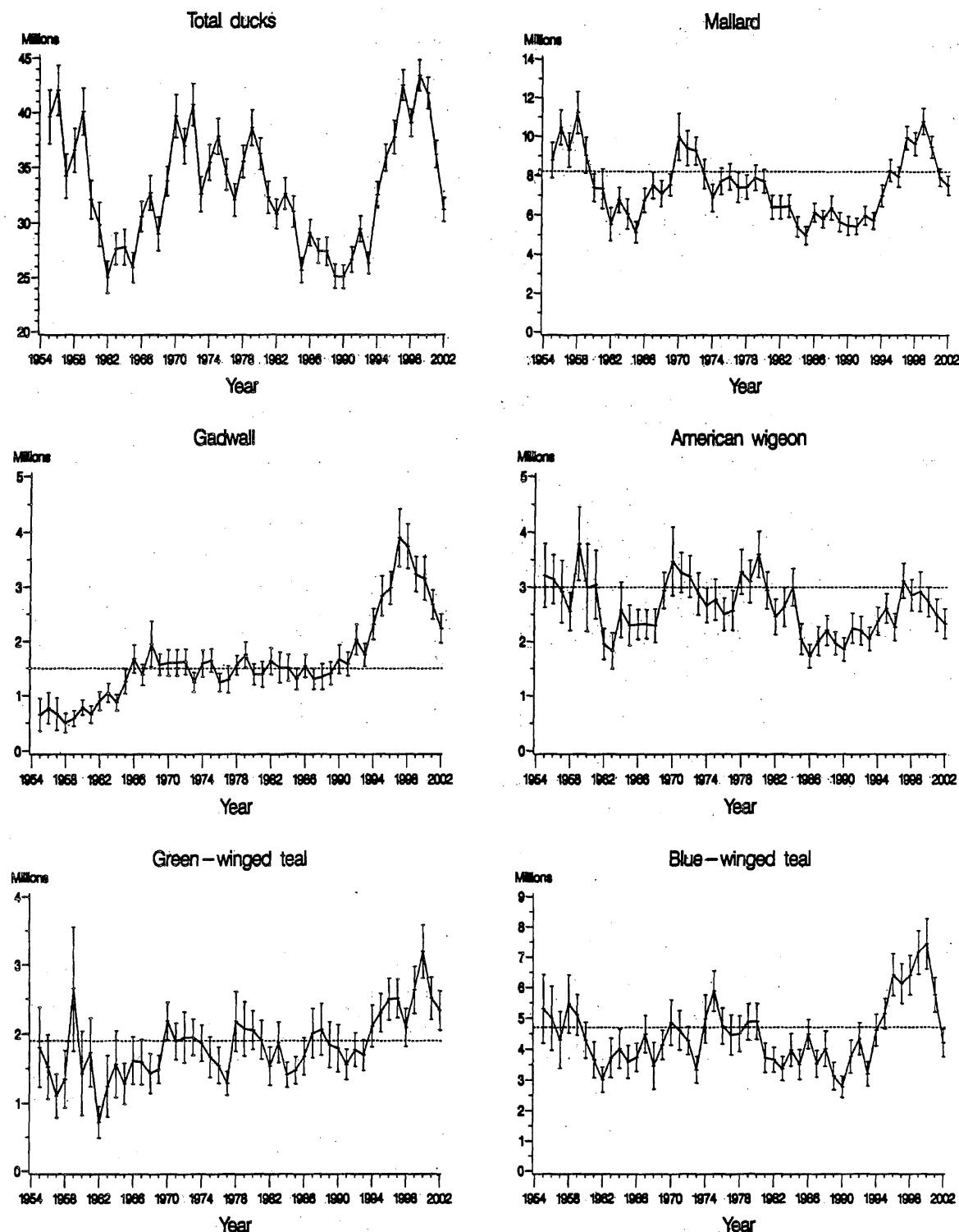


Figure 41. Estimates of North American breeding populations of selected ducks and number of water areas in May in Prairie Canada and Northcentral U.S. (from: U.S. Fish and Wildlife Service/Canadian Wildlife Service 2002. Waterfowl population status, 2002 July 2002. 51 pp).

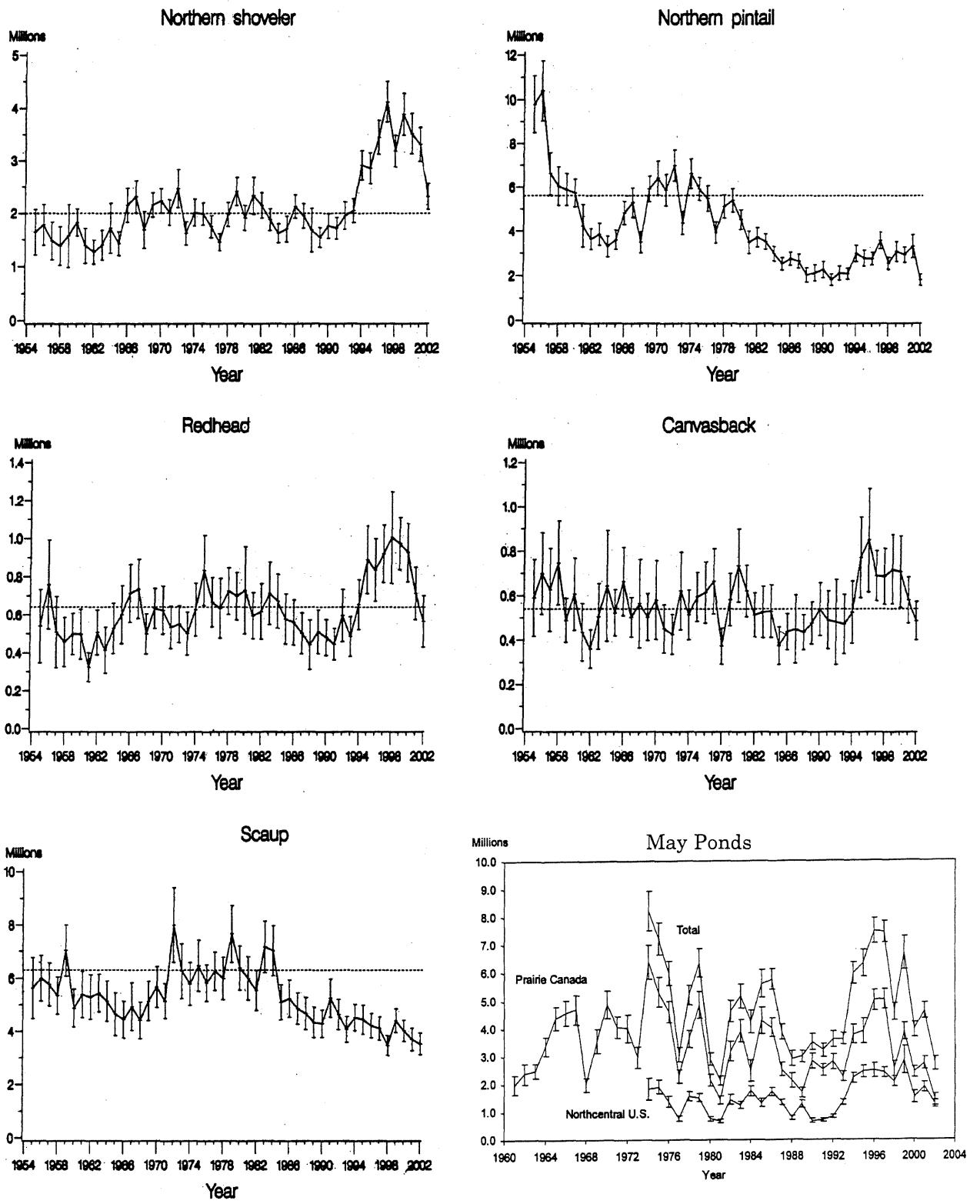


Figure 41. (continued)

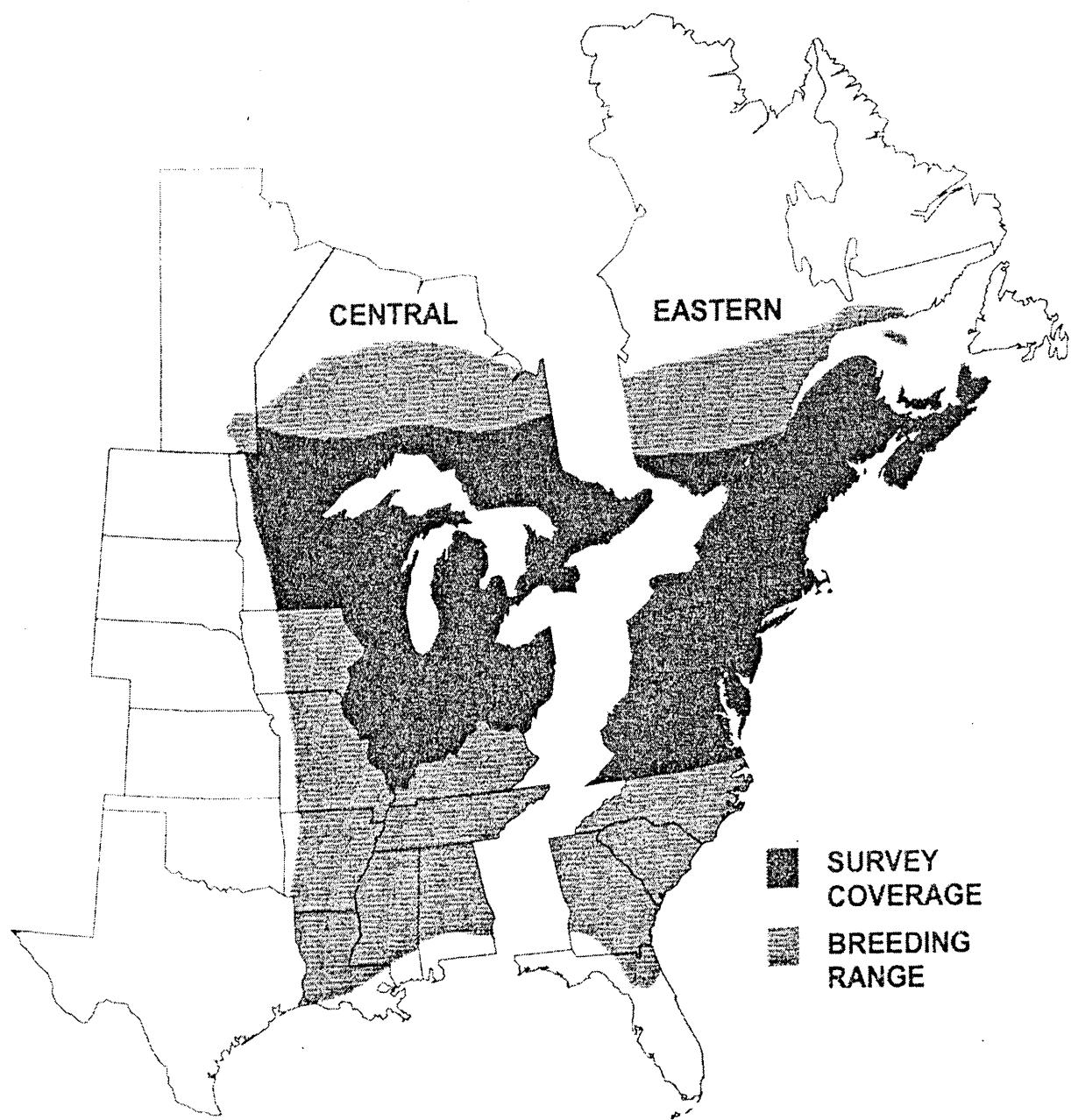


Figure 42. Woodcock management regions, breeding range, singing-ground survey coverage, (from: Kelley, J.R., Jr., 2002. American woodcock population status, 2002. U.S. Fish and Wildlife Service, Laurel, MD. 16pp.)

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., 2002. American woodcock population status, 2002. U.S. Fish and Wildlife Service, Office of Migratory Bird Management, Laurel, MD. 15pp).

Management Unit/State	2 year N ^b	(2001-02) % Change	Routes Run ^c	10 year N	(1991-01) % Change	33 year N	(1968-01) % Change
CENTRAL	136	- 7.9	300	409	- 1.5*** ^d	610	- 1.6***
IL			7	4	4.4	23	24.4
IN			18	8	0.9	38	- 5.8
MB ^e	7	- 1.9	18	20	- 4.8***	20	- 4.9***
MI	47	13.7	90	110	- 1.2	142	- 1.5***
MN	38	- 17.4**	79	75	- 0.6	98	- 1.0*
OH	6	- 7.3	19	27	- 7.1	54	- 6.5***
ON			0	94	- 2.5 ^f	135	- 1.3*** ^g
WI	36	-21.4	69	71	1.5	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 2001 for which data were received by 31 May.

^c Number of comparable routes with at least 2 non-zero counts.

^d Indicates slope is significantly different from zero: * P ≤ 0.10; ** P ≤ 0.05; *** P ≤ 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 and ON for the 2002 survey. Trend is for the period 1992-2001.

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

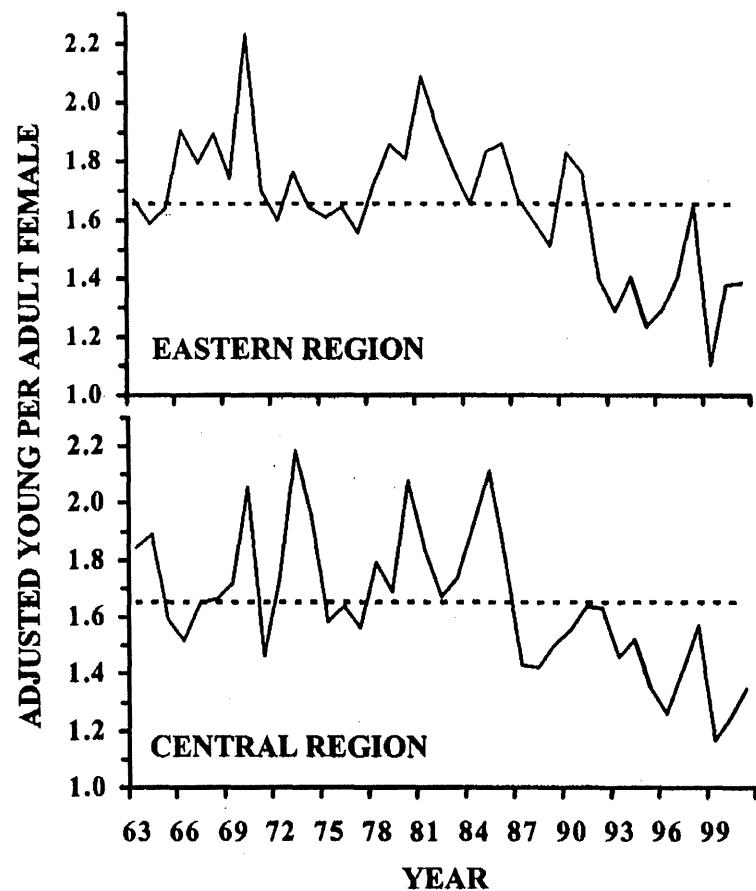


Figure 43. Adjusted index of American woodcock recruitment, 1963-2001. Dashed line is the index based on all 1963-2000 average. (from: Kelley, J.R., Jr. 2002. American woodcock population status, 2002. U.S. Fish and Wildlife Service, Laurel, MD. 16pp).

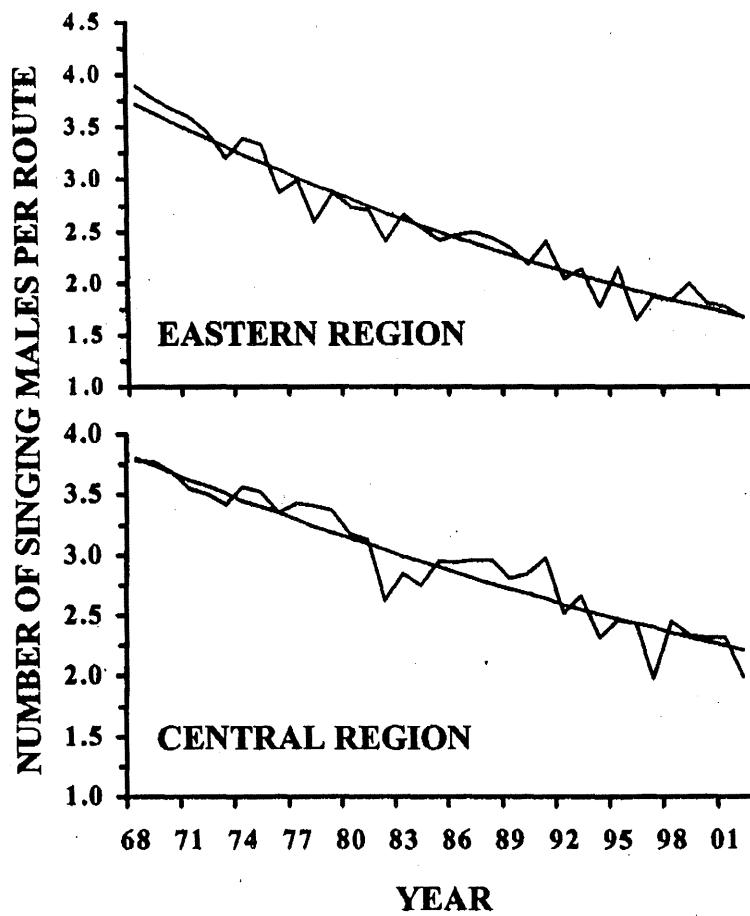


Figure 44. American woodcock singing ground survey long term trends and annual indices, 1968-02. (from: Kelley, J.R., Jr. 2002. American woodcock population status, 2002. U.S. Fish and Wildlife Service, Laurel, MD. 16pp)

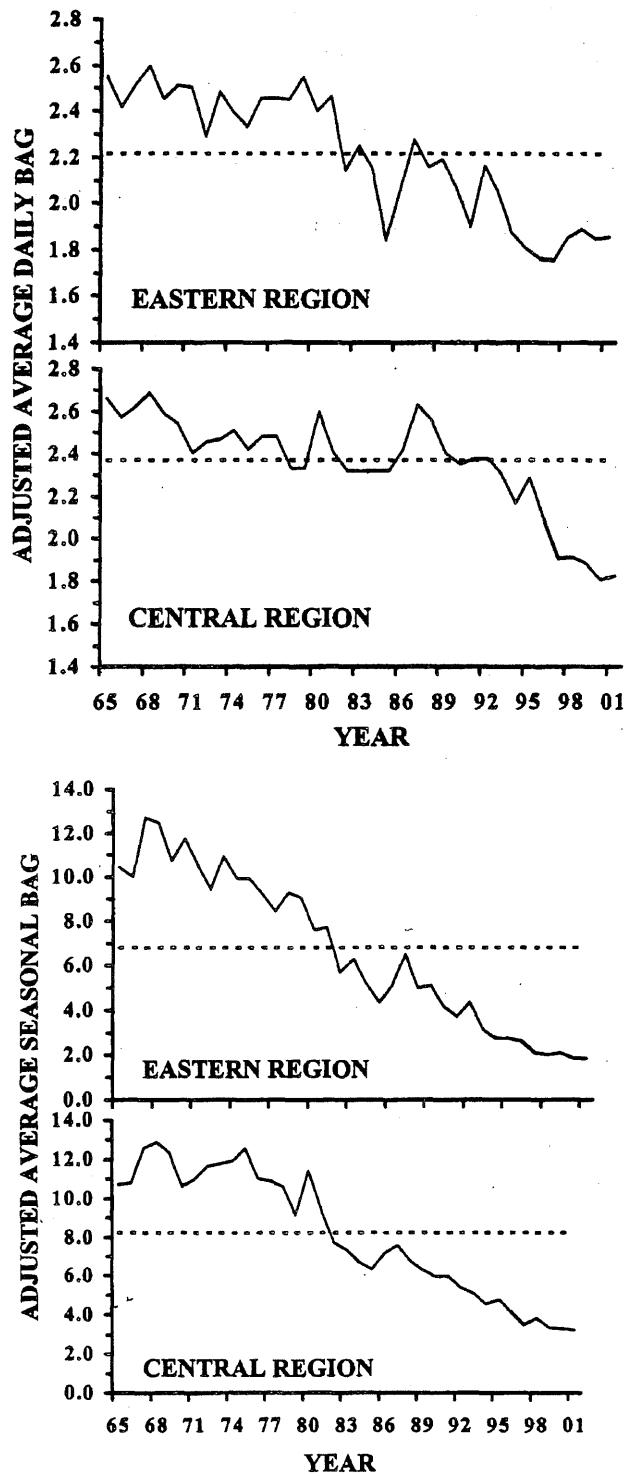


Figure 45. Adjusted indices of daily and seasonal hunting success of American woodcock, 1965-2001, Base year is 1969. Dashed line is 1965-00 average. (from: Kelley, J.R., Jr. 2002. American woodcock population status, 2002. U.S. Fish and Wildlife Service, Laurel, MD. 16pp).

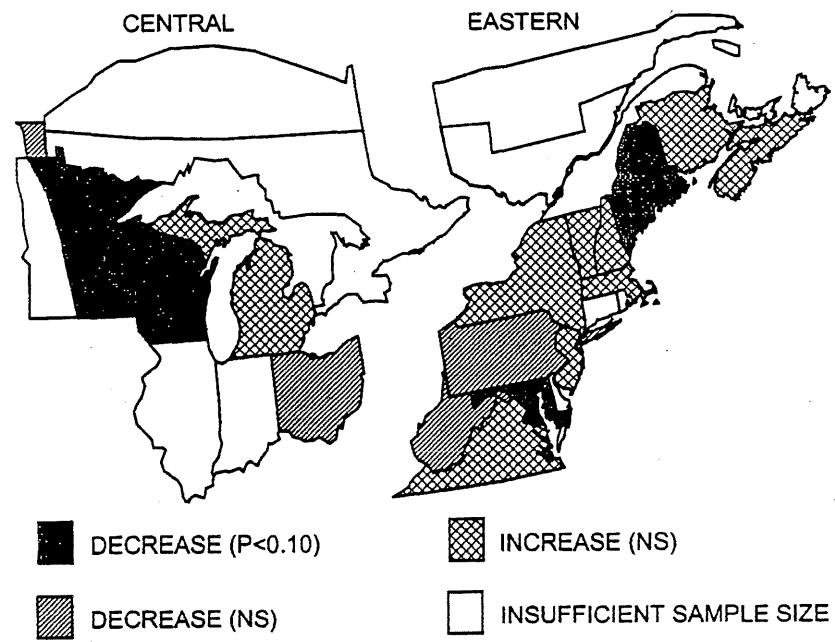


Figure 46. Short-term trends in number of American woodcock heard on the Singing-ground Survey; 2001-02. (from: Kelley, J.R., Jr. 2002. American woodcock population status, 2002. U.S. Fish and Wildlife Service, Laurel, MD. 16pp)

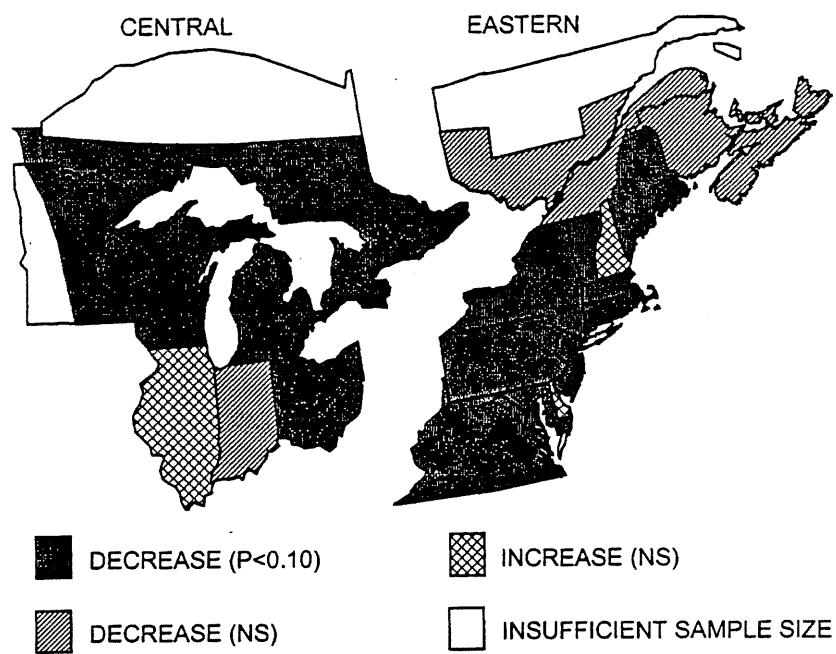


Figure 47. Long-term trends in number of American woodcock heard on the Singing-ground Survey; 1968-02. Due to a lack of data for Ontario and Prince Edward Island in 2002, trends for those provinces relate to the period 1968-01. (from: Kelley, J.R., Jr. 2002. American woodcock population status, 2002. U.S. Fish and Wildlife Service, Laurel, MD. 16pp)

A HISTORY OF MINNESOTA WATERFOWL REGULATIONS,
1915-2001

Wetland Wildlife Populations and Research
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Table 27. (Continued)

Year	Goose Season							
	Statewide Regulations (excluding special zones)							
	Overall		Snow&Blue Goose	Bag Limit / Poss.				
Year	Open	Close	Days	Open	Close	Aggr.	Canada	W-F
1915	7-Sep	1-Dec	86			10/30		
1916	7-Sep	1-Dec	86			10/30		
1917	16-Sep	1-Dec	77			5/30		
1918	7-Sep	1-Dec	86			5/5		
1919	16-Sep	31-Dec	107			5/5		
1920	16-Sep	31-Dec	107			5/5		
1921	16-Sep	31-Dec	107			5/5		
1922	16-Sep	31-Dec	107			5/5		
1923	16-Sep	31-Dec	107			5/5		
1924	16-Sep	31-Dec	107			5/5		
1925	16-Sep	31-Dec	107			5/5		
1926	16-Sep	31-Dec	107			5/5		
1927	16-Sep	31-Dec	107			5/5		
1928	16-Sep	31-Dec	107			5/5		
1929	16-Sep	31-Dec	107			5/5		
1930	16-Sep	31-Dec	107			4/5		
1931	1-Oct	31-Dec	92			4/5		
1932	1-Oct	30-Nov	61			4/5		
1933	1-Oct	30-Nov	61			4/5		
1934	3-Oct	11-Nov	40			4/5		
1935	21-Oct	19-Nov	30			4/4		
1936	10-Oct	8-Nov	30			4/4		
1937	5-Oct	7-Nov	34			4/5		
1938	1-Oct	14-Nov	45			4/5		
1939	1-Oct	14-Nov	45			4/8		
1940	1-Oct	29-Nov	60			3/6		
1941	1-Oct	29-Nov	60			3/6		
1942	26-Sep	4-Dec	70			6/6	2	2
1943	25-Sep	3-Dec	70			6/6	2	2
1944	20-Sep	8-Dec	80			6/12	2	2
1945	20-Sep	8-Dec	80			6/12	2	2
1946	5-Oct	18-Nov	45			4/4	2	2
1947	7-Oct	5-Nov	30			4/4	1	or 1
1948	8-Oct	6-Nov	30			4/4	2	or 2
1949	7-Oct	6-Nov	31			4/4	2	or 2
1950	6-Oct	9-Nov	35			4/4	2	or 2
1951	5-Oct	18-Nov	45			5/5	2	or 2
1952	1-Oct	24-Nov	55			5/5	2	or 2
1953	3-Oct	26-Nov	55			5/5	2	or 2
1954	2-Oct	25-Nov	55			5/5	2	or 2
1955	8-Oct	16-Dec	70			5/5	2	or 2
1956	6-Oct	29-Nov	55			5/5	2	or 2
1957	5-Oct	13-Dec	70			5/5	2	or 2

Table 27. (Continued)

Goose Season																									
White Geese					Canada Geese																				
Year	Remainder of State				Northeast Zone				West Zone & Northwest Zones				WC and LQP Zone				Lac qui Parle Harvest Index								
	Open	Close	Days	Bag/ Pass.	Open	Close	Days	Bag	Open	Close	Days	Bag	Open	Close	Days	Bag	Index	Harvest	Date close	Days					
1996	28-Sep	16-Dec	80	7/14	28-Sep	6-Dec	70	2/4	est. in 1998				Both	28-Sep	6-Nov	40	1/2	5-Oct	13-Oct	9	1/2	7000 for the first 9 days			
													17-Oct	6-Nov			21	16000	9768	not reached	30				
1997	4-Oct	22-Dec	80	10/20	4-Oct	12-Dec	70	2/4					Both	4-Oct	12-Nov	40	1/2	11-Oct	9-Nov	30	1/2	16000	7716	not reached	30
1998	3-Oct	21-Dec	80	10/20	3-Oct	1-Nov	30	1/2	3-Oct	11-Dec	70	2/4	NW	3-Oct	22-Oct	20	1/2	15-Oct	3-Nov	20	1/2	10000	7188	not reached	20
					2-Nov	11-Dec	40	2/4					W	3-Oct	27-Oct	25	1/2								
1999	2-Oct	20-Dec	80	10/20	2-Oct	10-Dec	70	2/4	incorporated into remainder of state				Both	2-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	8-Dec	70	2/4					Both	30-Sep	8-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	7-Dec	70	2/4					Both	29-Sep	7-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	6-Dec	70	2/4					Both	28-Sep	6-Nov	40	1/2	5-Oct	13-Nov	40	1/2	12000			

Table 27. (Continued)

Year	Other Regulations
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, SHOV 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, SHOV, 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, SHOV, 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 restrictions 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.

Table27. (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 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 NW, 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, FFAGZ, 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, FFAGZ, OCGZ, bag limit 2. Reductions in regular goose season due to EPP status, New NE Goose Zone
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 lengthened 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 lengthened 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.

HUNTING HARVEST STATISTICS
Division of Wildlife
500 Lafayette Road, Box 7
Saint Paul, MN 55155 - 4007
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MINNESOTA HUNTING

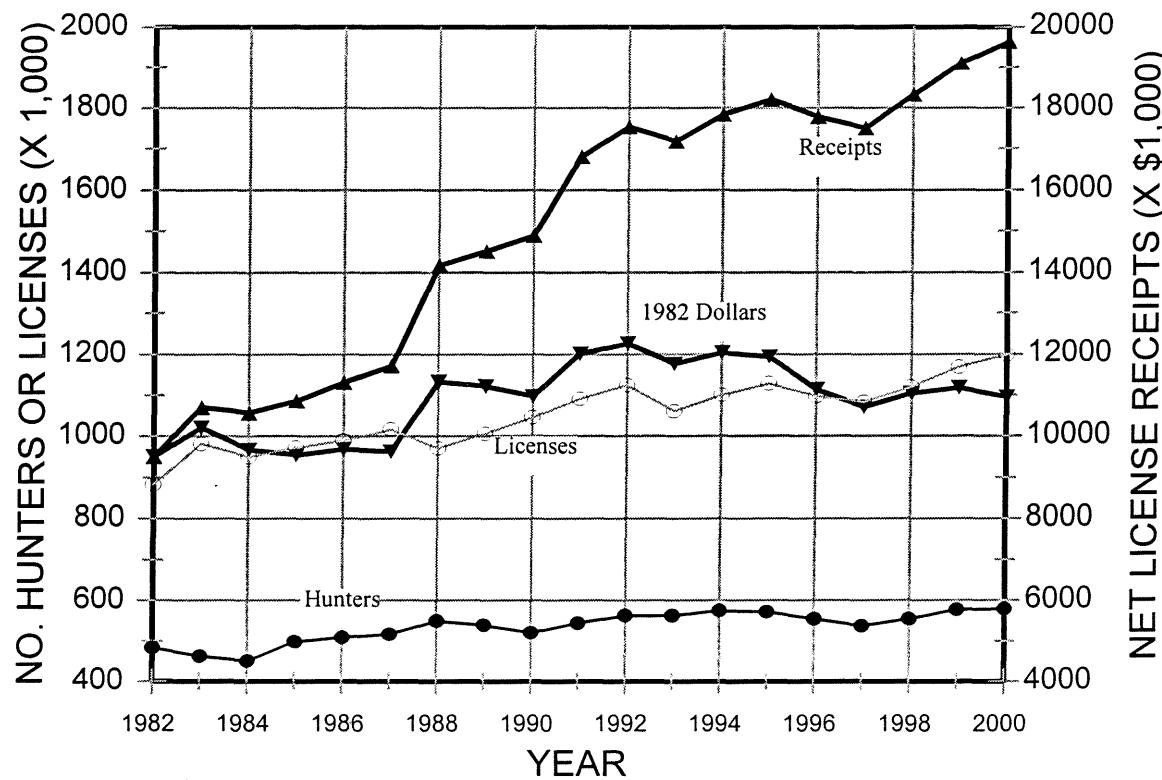


Figure 48. Minnesota hunting trends, 1982-2000.

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, February 2001, and February 2002, U.S. Dept. of Commerce.

Table 28. Small game hunter response to mail surveys, 1979 - 80 through 2001 - 02.

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

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

Table 29. Use of small game hunter licenses, 1991-92 through 2001-2002.

		Returns from mail survey	Projections from license sales
1991-92	Hunted	3,004 (85.3%)	270,972
	Did not hunt	<u>519 (14.7%)</u>	<u>46,697</u>
		3,523 (100.0%)	317,669
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

Includes resident and non-resident information. Excludes duplicates.

Table 30. Estimated number of hunters (thousands) for various species, 1989-90 through 2001-02.

	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
Ducks	84	88	100	107	109	118	119	114	122	117	122	109	109
Canada goose	50	56	56	61	62	70	73	75	79	77	80	77	76
Other geese	7	6	6	6	9	7	10	6	5	6	5	7	7
American coot	4	5	5	5	6	7	9	6	7	5	6	4	4
Common snipe	5	5	4	3	2	2	2	2	2	2	2	2	1
Rails / gallinules	1	<1	<1	<1	1	1	1	<1	<1	<1	<1	<1	<1
Crow *	9	13	12	11	10	12	15	13	11	11	14	14	11
American woodcock	30	30	27	21	17	21	21	18	17	19	19	16	11
Ring-necked pheasant	90	105	122	105	88	92	96	88	80	88	93	100	85
Ruffed grouse	163	163	146	124	102	107	116	118	127	142	139	121	101
Spruce grouse	20	19	16	13	11	12	14	11	11	11	11	9	9
Sharp-tailed grouse	14	14	14	10	8	7	8	7	8	8	8	10	8
Gray partridge	24	31	27	17	15	14	12	11	8	10	10	8	7
Gray squirrel	36	41	36	32	32	35	35	33	27	30	31	27	26
Fox squirrel	23	29	23	22	23	24	23	20	16	18	20	17	15
Eastern cottontail	24	32	31	24	21	21	23	19	14	19	18	20	17
White-tailed jackrabbit	6	7	6	5	4	4	5	4	3	3	3	2	3
Snowshoe hare	10	15	12	8	5	6	5	4	4	7	7	5	6
Raccoon (Sept 01 - Feb 02)	7	10	10	9	9	10	10	10	9	9	6	6	6
Raccoon [†] (March 01-Aug 01)						3	5	4	3	4	3	5	4
Red fox (Sept 01-Feb 02)	9	16	22	19	16	15	15	11	9	9	8	10	6
Red fox [†] (March 01-Aug 01)						3	4	3	2	3	2	2	3
Gray fox	2	3	4	3	3	2	3	n.a.	2	2	2	1	1
Coyote	4	9	13	14	14	11	15	13	10	11	11	16	11
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, 1987-88 through 2001-02.

	Estimated take per hunter														
	1987-88	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
Ducks	8.2	6.9	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
Canada geese	1.9	2.4	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
Other geese	1.1	0.9	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
American coot	3.6	2.6	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
Common snipe	3.4	3.3	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
Rails/gallinules	3.6	1.8	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
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
American woodcock	4.5	4.0	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
Ring-necked pheasant	3.2	3.9	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
Ruffed grouse	6.3	6.6	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
Spruce grouse	2.3	2.6	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
Sharp-tailed grouse	2.4	2.5	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
Gray partridge	3.8	4.6	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
Gray squirrel	5.6	5.8	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
Fox squirrel	4.7	5.2	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
Eastern cottontail	4.0	4.3	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
White-tailed jackrabbit	2.2	1.8	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
Snowshoe hare	2.6	3.7	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
Raccoon (Sept 01 - Feb 02)	13.1	11.4	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
Raccoon [†] (March 01-Aug 01)								8.0	11.3	24.4	5.1	5.8	6.4	7.8	4.4
Red fox (Sept 01-Feb 02)	2.5	3.3	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
Red fox [‡] (March 01-Aug 01)								1.4	1.5	1.3	0.8	1.2	0.6	0.9	1.5
Gray fox	1.3	0.9	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
Coyote	1.1	1.2	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
Badger	1.6	1.5	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

*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 (%), 1990 - 91 through 2001 - 02.

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Ducks	7.9 (88.8)	8.7 (89.7)	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)
Canada geese	3.2 (71.6)	3.6 (72.2)	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)
Other geese	3.1 (37.9)	2.2 (47.8)	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)
American coot	4.9 (73.1)	3.8 (70.9)	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)
Common snipe	3.3 (90.7)	3.9 (93.8)	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)
Rails / gallinules	2.5 (40.0)	7.6 (100.0)	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)
Crow	6.3 (87.3)	9.1 (83.3)	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)
American woodcock	4.4 (87.9)	4.1 (85.0)	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)
Ring-necked pheasant	5.9 (78.6)	5.8 (79.2)	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)
Ruffed grouse	8.3 (85.1)	8.2 (80.3)	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)
Spruce grouse	3.6 (66.2)	3.0 (68.3)	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)
Sharp-tailed grouse	3.8 (62.6)	3.7 (64.5)	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)
Gray partridge	4.7 (78.2)	4.9 (78.0)	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)
Gray squirrel	6.3 (91.6)	5.7 (86.1)	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)
Fox squirrel	5.7 (89.6)	5.5 (84.7)	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)
Eastern cottontail	5.0 (87.1)	4.9 (83.7)	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)
White-tailed jackrabbit	2.0 (65.8)	2.4 (70.3)	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)
Snowshoe hare	5.2 (88.6)	6.9 (85.7)	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)
Raccoon (Sept 01-Feb 02)	10.4 (92.6)	8.4 (89.2)	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)
Raccoon [‡] (March 01-Aug 01)					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)
Red fox (Sept 01-Feb 02)	5.0 (68.0)	4.9 (73.6)	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)
Red fox [‡] (March 01-Aug 01)					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)
Gray fox	3.3 (44.4)	2.4 (40.0)	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)
Coyote	2.6 (62.1)	3.7 (56.6)	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)
Badger	1.9 (77.8)	2.2 (100.0)	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)

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

Table 33. Statewide small game hunting license sales and estimated hunter harvest, 1990-91 through 2001-02.

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Small game license sales ^a	311,104	317,669	297,941	276,625	289,189	298,425	298,337	305,186	320,308	327,431	320,862	298,055
Federal duck stamp sales	103,971	110,197	108,332	110,738	149,428	132,546	132,738	138,331	134,098	134,138	135,884	136,368
State duck stamp sales	102,151	104,051	104,064	104,839	116,346	122,092	122,634	126,009	126,488	128,245	121,709	118,590
Pheasant stamp sales	122,260	133,384	117,934	94,443	104,621	105,093	95,866	85,093	99,664	106,945	114,440	97,665
Estimated harvest ^b (thousands)												
Ducks ^c	619	784	864	824	955	1,162	1,098	1,206	1,119	1,021	969	990
Canada goose ^c	128	144	150	156	166	180	241	230	218	285	301	308
Other geese ^c	7	6	5	9	6	9	8	11	6	6	15	8
American coot ^c	17	13	23	15	22	28	23	29	25	25	10	17
Common snipe	14	16	9	4	2	3	5	4	5	3	3	2
Rails/gallinules	<1	3	<1	1	1	1	<1	<1	<1	<1	1	<1
Crow	70	94	69	51	114	130	96	74	106	60	96	88
American woodcock	116	94	100	68	74	82	58	58	63	54	45	27
Ring-necked pheasant	483	565	411	332	319	398	341	248	309	339	375	267
Ruffed grouse	1,153	963	543	288	371	457	533	654	946	685	619	332
Spruce grouse	46	34	21	12	23	25	16	25	27	19	23	9
Sharp-tailed grouse	33	33	20	11	9	10	8	13	22	14	16	10
Gray partridge	115	102	49	35	26	26	24	16	24	19	17	10
Gray squirrel	234	174	147	178	187	169	158	131	149	132	140	146
Fox squirrel	115	109	92	105	99	105	75	68	57	71	65	63
Eastern cottontail	139	128	73	75	77	100	65	65	89	59	78	63
White-tailed jack rabbit	9	10	11	9	7	7	10	4	7	6	7	8
Snowshoe hare	69	70	24	16	19	11	10	8	25	21	27	22
Raccoon (Sept 01-Feb 02)	93	74	77	79	163	155	207	124	143	65	49	59
Raccoon ^d (May 01- Aug 01)					24	55	99	17	2	16	36	18
Red fox (Sept 01- Feb 02)	54	78	63	63	42	48	33	13	13	10	19	7
Red fox ^d (May 01- Aug 01)					4	6	4	2	3	1	2	4
Gray fox	5	4	4	2	1	3	n.a.	3	1	2	1	1
Coyote	14	27	21	18	13	26	30	16	14	13	29	12
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 harvest estimates for 2001 are:

Ducks	647,110	American coot	4,800
Canada geese	236,060	Other geese	0

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

Small Game

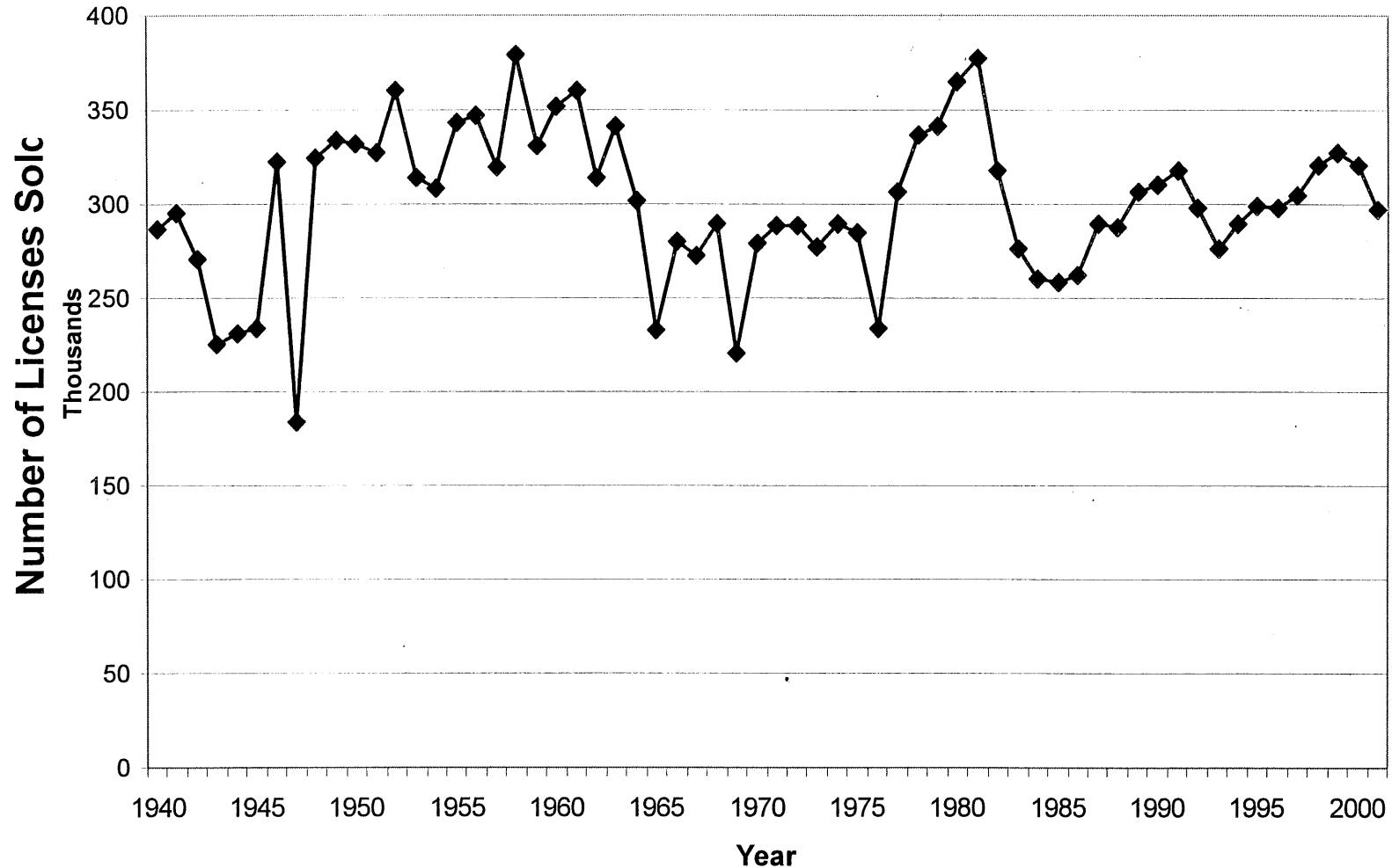


Figure 49. Numbers of Minnesota small game licenses sold, 1940 - 2001.

Table 34. Mail survey results of nonresident small game hunters, 1989-90 through 2001-02.

	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
Nonresident licenses issued^a	4,624	4,932	4,852	4,718	3,809	4,435	4,993	5,488	6,361	7,155	7,572	7,001	5,843
Questionnaires:													
Number mailed	553	82	114	170	229	182	205	51	269	200	199	98	124
Number not delivered	52	7	8	8	21	7	14	4	18	17	16	6	9
Number (percent) returned	396 (79)	54 (72)	89 (83)	32 (82)	149 (72)	128 (73)	140 (73)	32 (68)	183 (73)	117 (64)	136 (74)	56 (61)	77 (67)
Estimated nonresidents and (percent) of all nonresidents hunting:													
Ducks	1,521 (33)	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)
Canada goose	866 (19)	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)
Ruffed grouse	2,610 (56)	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)
Ring-necked pheasant	1,042 (23)	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)
Raccoon ^b	59 (1)	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)
Estimated nonresident take:													
Ducks	9,901	5,816	11,340	17,442	13,574	15,696	26,713	6,346	15,967	26,663	26,391	18,253	42,225
Canada goose	1,744	4,205	1,363	3,610	2,122	2,287	4,173	1,544	4,905	4,587	6,960	5,001	13,400
Ruffed grouse	20,739	14,852	18,100	10,758	4,985	7,242	9,415	23,153	16,072	27,886	23,384	24,003	6,622
Ring-necked pheasant	4,424	3,221	6,324	4,110	3,042	4,366	3,638	1,887	2,505	1,712	4,844	4,001	3,740
Raccoon	667	0	327	0	26	0	3,638	8,061	70	0	724	3,375	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 and 2001 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

	Resident	Nonresident	Number of nonresident raccoon licenses
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

Table 35. Species composition of the Minnesota waterfowl harvest, 2000 and 2001 (from: Martin, E.M. and P.I. Padding, 2002. Preliminary estimates of waterfowl harvest and hunter activity in the United States during the 2001 hunting season. U.S. Fish and Wildlife Service Adm. Rep., Office of Migratory Bird Management, Laurel, Maryland. July 2002. 33 pp.). Note: All 2000 estimates are based on audited final duck stamp sales figures, whereas 2001 estimates are based on unaudited duck stamp sales figures. There was little or no difference between audited and unaudited 2000 figures in most states.

Species	2000		2001		Percent change
	Harvest	Pct of harvest	Harvest	Pct of harvest	
Mallard	175,288	32.82	252,114	38.96	+ 44
Domestic mallard	267	0.05	712	0.11	+ 167
American black duck	587	0.11	194	0.03	- 67
Black x mallard	320	0.06	259	0.04	- 19
Gadwall	17,358	3.25	13,848	2.14	- 20
American wigeon	11,269	2.11	11,713	1.81	+ 4
Green-winged teal	40,270	7.54	38,568	5.96	- 4
Blue-winged /cinnamon teal	73,223	13.71	97,908	15.13	+ 34
Northern shoveler	7,531	1.41	12,036	1.86	+ 60
Northern pintail	10,361	1.94	8,154	1.26	- 21
Wood duck	83,158	15.57	78,947	12.20	- 5
Redhead	10,628	1.99	14,819	2.29	+ 39
Canvasback	6,142	1.15	3,430	0.53	- 44
Greater scaup	1,923	0.36	1,618	0.25	- 16
Lesser scaup	13,139	2.46	29,314	4.53	+ 123
Ring-necked duck	65,533	12.27	64,840	10.02	- 1
Goldeneye	4,059	0.76	6,083	0.94	+ 50
Bufflehead	6,089	4.14	7,701	1.19	+ 26
Ruddy duck	1,282	0.24	518	0.08	- 60
Scoters	0	0	582	0.09	+
Hooded merganser	5,555	1.04	3,818	0.59	- 31
Other mergansers	107	0.02	0	0	- 100
Total Duck Harvest (retrieved kill)	534,088	100.00 ^a	647,110	100.00 ^a	+ 21

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

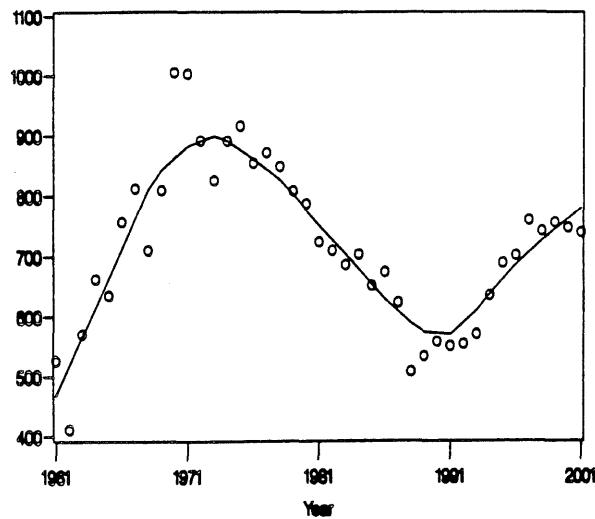
^b No percentage change.

Table 36. Top 10 states in number of adult waterfowl hunters, 2001, and number of hunter-days and retrieved duck kill, in each (from: Martin, E.M., and P.I. Padding. 2002. Preliminary estimates of waterfowl harvest and hunter activity in the United States during the 2001 hunting season. U.S. Fish and Wildlife Service Adm. Rep., Office of Migratory Bird Management, Laurel, Maryland. July 2002. 33 pp.). Note: All 2001 estimates are based on unaudited final duck stamp sales figures.

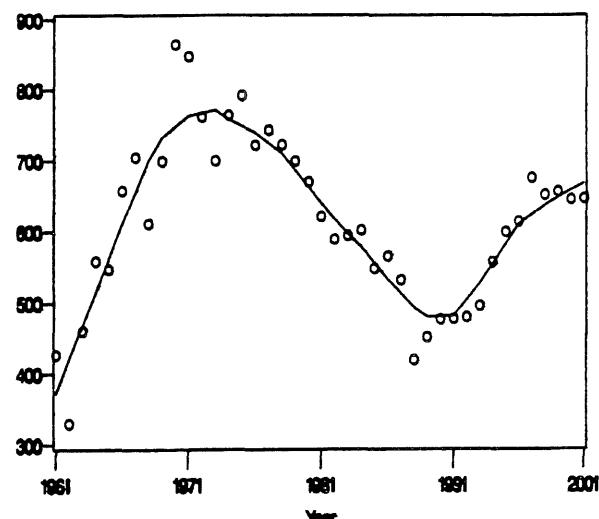
State	Number of active adult waterfowl hunters	Number of hunter-days	Retrieved duck kill	Ducks retrieved per hunter-day
Minnesota	128,322	1,189,546	647,110	0.54
Texas	115,307	1,119,837	1,483,650	1.32
Louisiana	86,135	1,310,393	2,056,857	1.57
California	66,084	756,947	964,183	1.27
Wisconsin	63,812	532,983	253,040	0.47
Michigan	58,030	686,887	304,002	0.52
Arkansas	57,818	845,745	1,123,766	1.33
Illinois	46,526	612,437	445,294	0.73
Pennsylvania	42,037	368,685	129,083	0.35
Missouri	37,896	542,415	487,120	0.90
Mississippi Flyway	646,210	7,647,324	6,630,916	0.87
United States	1,383,051	14,999,049	13,933,728	0.93

Mississippi Flyway

Duck Stamp Sales (1,000s)



Active Adult Hunters (1,000s)



Adult Hunter Days (1,000s)

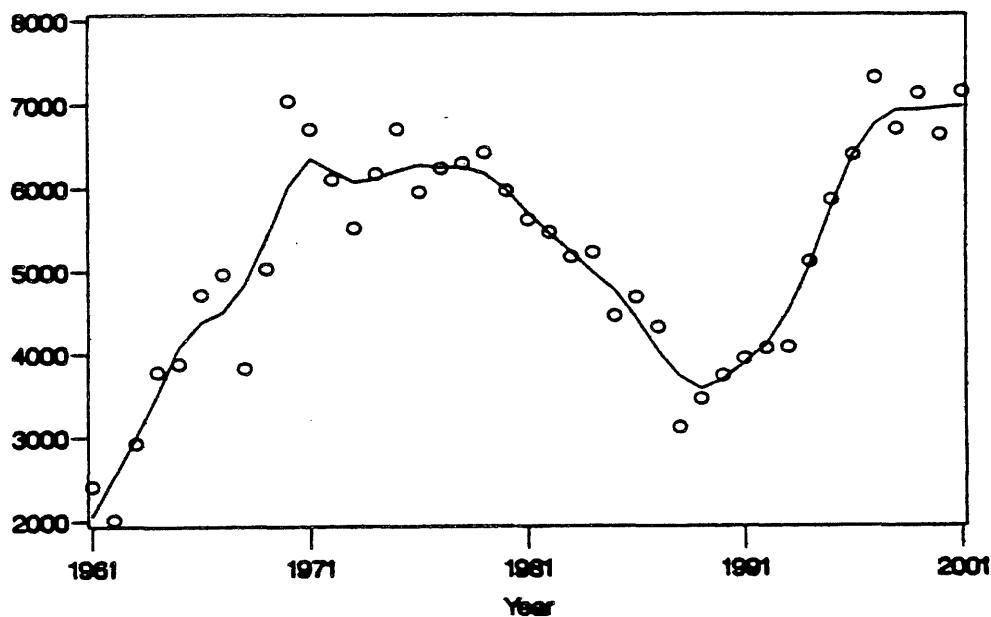
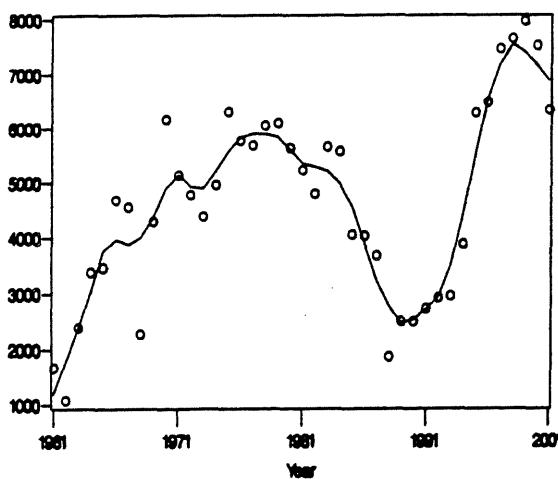


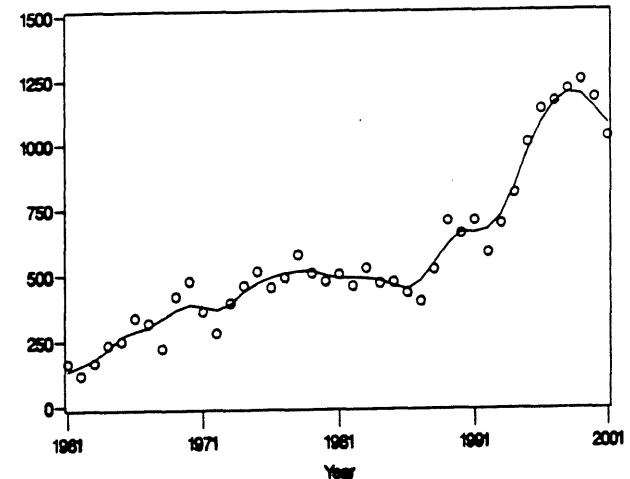
Figure 50. Federal duck stamp sales; Active adult hunters; Adult hunter days, (in 1,000s) for the Mississippi flyway. The 1961 through 2000 data are final, but the 2001 numbers are preliminary pending final duck stamp sales. The curves (locally weighted regression [lowess] lines; Cleveland and Devlin 1988, J. Am. Stat. Assoc.) fit a pattern to the majority of the estimates and identify estimates that deviate from that pattern (from Martin, E.M., and P.I. Padding. 2002 Preliminary estimates of waterfowl harvest and hunter activity in the United States during the 2001 hunting season. U.S. Fish and Wildlife Service Adm. Rep. Office of Migratory Bird Management, Laurel, MD. July 2002. 33pp.)

Mississippi Flyway

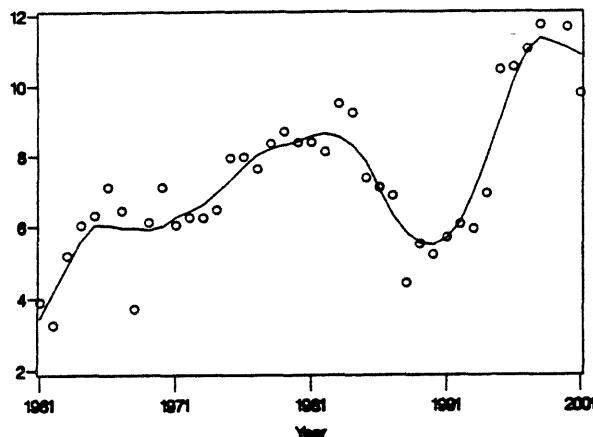
All Duck Harvest (1,000s)
by Adult Hunters



All Goose Harvest (1,000s)
by Adult Hunters



Seasonal Duck Bag
Per Adult Hunter



Seasonal Goose Bag
Per Adult Hunter

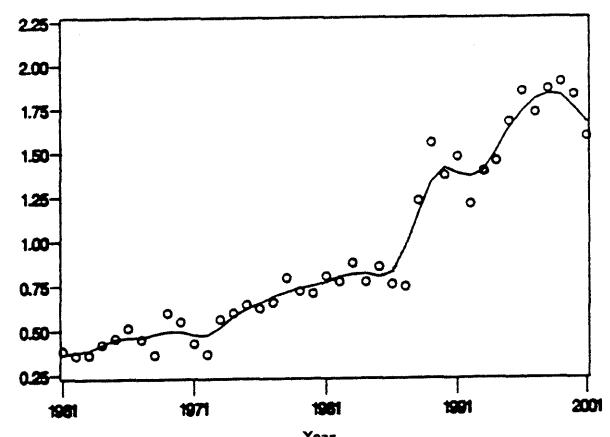


Figure 51. All duck harvest (1,000s) by adult hunters; all goose harvest (1,000s) by adult hunters; seasonal duck bag; and seasonal goose bag per adult hunters in the Mississippi flyway. The 1961 through 2000 data are final, but the 2001 numbers are preliminary pending final duck stamp sales. The curves (locally weighted regression [lowess] lines; Cleveland and Devlin 1988, *J. Am. Stat. Assoc.*) fit a pattern to the majority of the estimates and identify estimates that deviate from that pattern (from Martin, E.M., and P.I. Padding. 2002 Preliminary estimates of waterfowl harvest and hunter activity in the United States during the 2001 hunting season. U.S. Fish and Wildlife Service Adm. Rep. Office of Migratory Bird Management, Laurel, MD. July 2002. 33pp.)

Table 37. Ranking of the Six Most Numerically Important Species in Minnesota regular season duck harvest, 1961-2001.

Year	Rank Position / % of Harvest										Combined % of Total Harvest		
	1	%	2	%	3	%	4	%	5	%			
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
Avg. % of Harvest	31.2	16.5	12.7	9.7	7.3	5.6	83.0						
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-41	Wood Dk-20	Ringneck-13	Ringneck-13	GW Teal-12	GW Teal-14
	Ringneck-13	BW Teal- 10	GW Teal- 10	L. Scaup-11	Wigeon - 9
	BW Teal- 5	Wood Dk- 10	BW Teal- 7	BW Teal- 9	L. Scaup- 9
	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 45. Spring turkey hunting summary, 1978-02.

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 ^f	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 ^g	42,415	24,136	**	22,607	21,477	6,516	30.3

^aCalculated with total permits available to be given, and not adjusting for undersubscribed zones and time periods.^bFor 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.^cRegistered turkey harvest divided by number actually hunting, expressed as %.^dLegislation allows NON-RESIDENT hunters.^{**}Computerized preference drawing began Spring 1990.^fOpen hunt zone area now calculated using deer permit zones.^gTotal estimated huntable square miles (forest cover buffered by 50 meters with non-huntable areas removed).

Table 46. Spring Wild Turkey harvest in Minnesota, by permit area, 2002.

Permit Area	Number of Permits Issued	Harvest					Hunter Success (%)
		Number of Adults	Number of Juveniles	Percent (%) Juveniles	Number of Unreported Age	Total	
223	332	83	28	25.2		111	33.4
225	564	99	50	33.6		149	26.4
227	334	66	18	21.4		84	25.1
228	272	73	26	26.3		99	36.4
235	118	22	11	33.3		33	28.0
236	477	152	23	13.1		175	36.7
244	73	24	3	11.1		27	37.0
337	314	77	14	15.4		91	29.0
338	486	103	47	31.3		150	30.9
339	492	104	38	26.8		142	28.9
341	1,298	313	128	29.0		441	34.0
342	1,318	280	56	16.7		336	25.5
343	1,108	342	100	22.6		442	40.0
344	760	173	58	25.1		231	30.4
345	1,332	216	82	27.5		298	22.4
346	2,002	334	167	33.3		501	25.0
347	1,151	199	89	31.0		288	25.0
348	1,310	205	111	35.1		316	24.1
349	2,608	425	197	31.7		622	23.8
410	110	42	9	17.6		51	46.4
411	116	50	13	20.6		63	54.3
412	177	62	15	19.5		77	43.5
415	219	69	9	11.5		78	35.6
416	75	15	4	21.1		19	25.3
417	183	57	20	26.0		77	42.1
418	321	94	23	19.7		117	36.4
419	142	12	18	60.0		30	21.1
422	44	6	11	64.7		17	38.6
425/435	384	68	50	42.4		118	30.7
426	31	6	1	14.3		7	22.5
427	31	9	2	18.2		11	35.5
428	35	10	3	23.1		13	37.1

Table 46. (Continued)

Permit Area	Number of Permits Issued	Harvest					Hunter Success (%)
		Number of Adults	Number of Juveniles	Percent (%) Juveniles	Number of Unreported Age	Total	
429	93	12	9	42.9		21	22.6
431	35	2	3	60.0		5	14.3
433/446/447	38	8	3	27.1		11	28.9
440	380	38	46	54.8		84	22.1
442	1,172	205	185	47.4		390	33.3
443	503	98	76	43.7		174	34.6
448/449/451	57	38	2	0.5		40	70.2
450	29	4	3	42.9		7	24.1
454/455/456/458	38	5	1	16.7		6	15.8
457	35	5	4	44.4		9	25.7
459	110	17	6	26.1		23	21.0
461	566	89	63	41.4		152	26.9
462	479	115	58	33.5		173	36.1
463	150	18	15	45.5		33	22.0
464	143	4	11	73.3		15	10.5
465	180	24	9	27.3		33	18.3
466	189	48	18	27.3		66	35.0
467	193	43	17	28.3		60	31.2
Total	22,607	4,563	1,953	30.0		6,516	28.8*

* (not adjusted for non-participants)

2002 Spring Wild Turkey Permit Areas

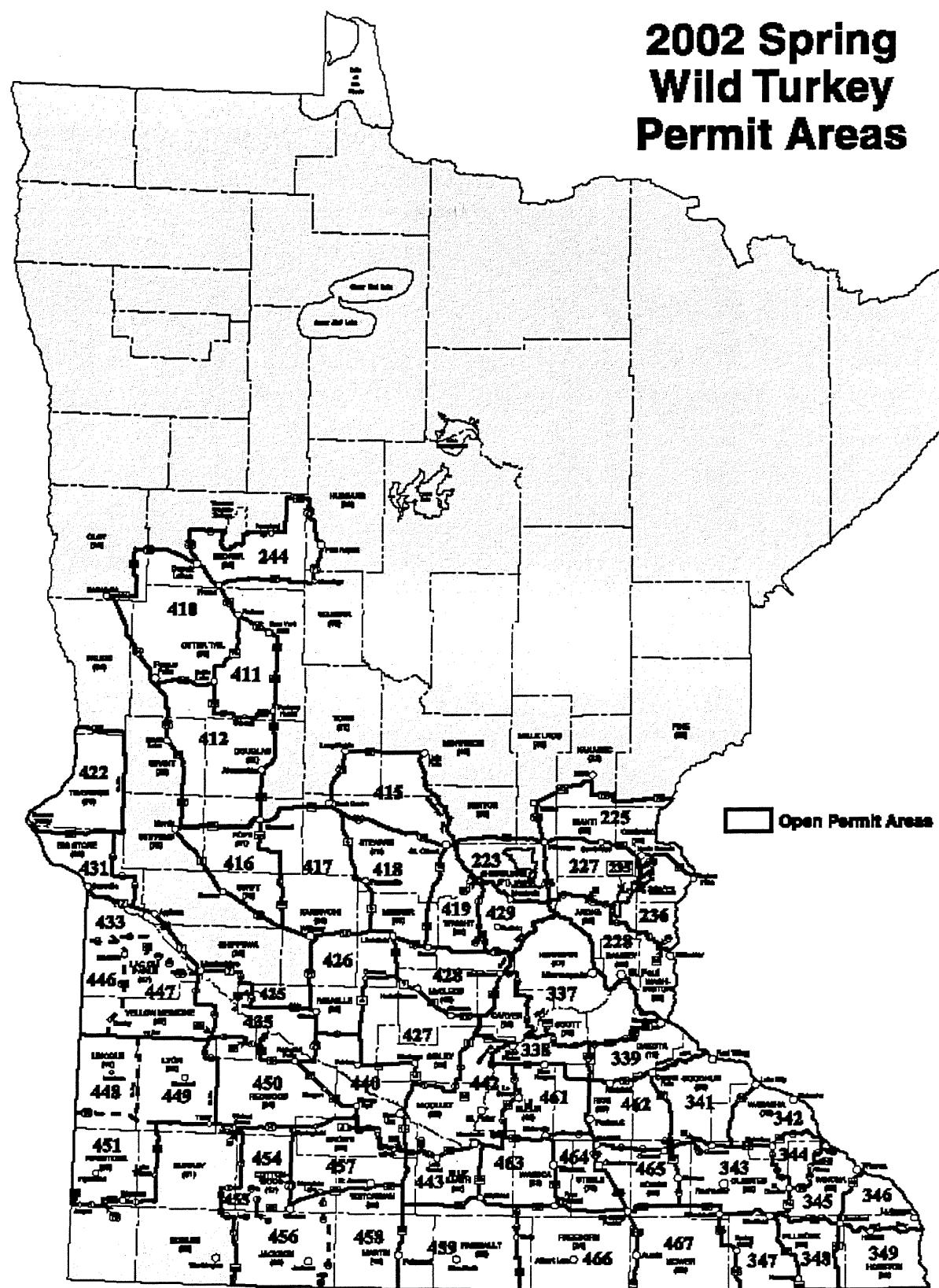


Figure 52. Spring wild turkey hunt permit areas, 2002.

Table 47. Fall turkey hunting summary, 1990-2001.

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	7241 ^f	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	9,179	5,354	2,890	2,644	2,380	865	36
2000	9,179	5,263	3,090	2,484	2,236	735	33
2001	7,340	4,501	2,870	2,262	2,036	629	31

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

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

^f Area of open hunt zone calculated from Deer Permit Zone information of area/miles².

Table 48. Fall wild turkey harvest by permit area, 2001.

Permit Area	Female		Male		Total
	Juvenile	Adult	Juvenile	Adult	
337	5	11	1	6	23
339	10	15	6	6	37
341	54	55	17	34	160
343	13	21	5	22	61
344	2	24	0	6	32
345	39	46	18	15	118
346	5	41	11	10	67
349	34	36	21	16	107
461	15	2	2	4	23
464	4	0	0	0	1
Total	178	251	81	119	629

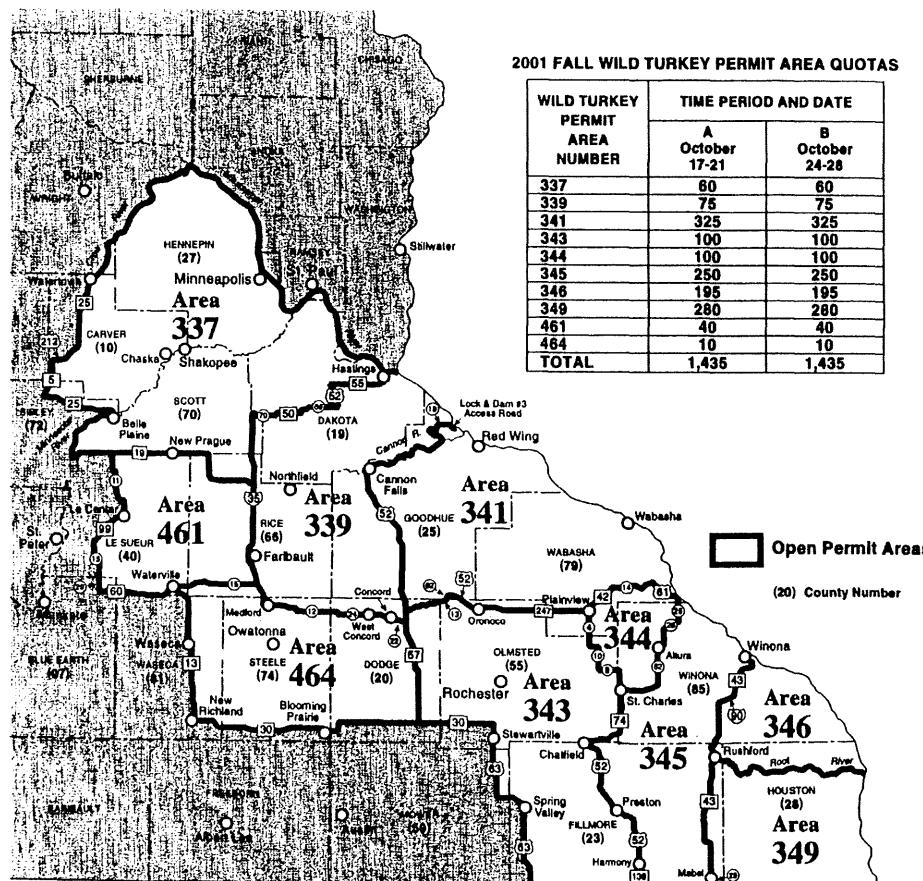


Figure 53. Fall wild turkey hunt zones, 2001.

Table 49. Deer hunting license sales, 1957-2001^a.

Year	Firearms License Sales			Archery License Sales			
	Resident	Non-resident	Total	Resident	Non-resident	Total	Grand 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	66,733	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

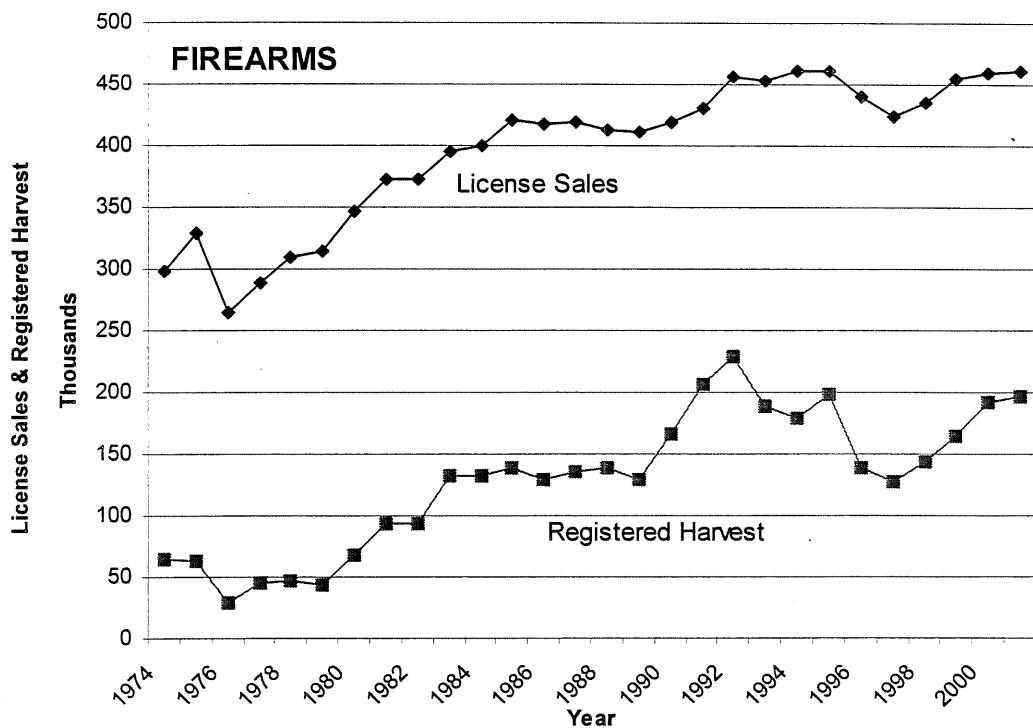
^a Duplicate licenses not included. Leech Lake licenses are included during years they were issued.^b Bonus licenses not included beginning 1988.

Table 50. Registered deer harvest and hunter success rates, 1974-2001.

	Registered Harvest			Percent Success	
	Regular firearms	Archery	Special Muzzleloader season ^a	Regular firearms and special muzzleloader seasons	Archery
1974	64,997	2,176	-	67,173	21.8
1975	63,604	2,265	-	65,869	19.3
1976	28,613	1,167	-	29,780	10.8
1977	45,918	2,609	32	48,559	15.9
1978	47,372	2,608	346	50,326	15.4
1979	44,340	2,577	318	47,235	14.2
1980	68,539	3,641	294	72,474	19.8
1981	93,027	5,535	385	98,947	25.1
1982	93,045	5,566	441	99,052	25.1
1983	132,457	5,977	652	139,086	33.6
1984	132,042	6,390	532	138,941	33.0
1985	138,065	7,575	563	146,203	33.4
1986	129,770	7,610	593	137,923	31.2
1987	135,003	7,535	535	143,073	32.4
1988	138,946	8,262	686	147,894	33.6
1989	129,551	9,307	622	139,480	31.4
1990	166,589	11,106	730	178,425	39.4
1991	206,275	12,964	961	220,200	46.9
1992	229,236	13,004	828	243,068	46.1
1993	188,109	13,722	1,097	202,928	40.0
1994	178,283	13,818	1,725	193,826	37.1
1995	198,193	14,521	2,452	215,166	40.1
1996	139,348	14,338	3,367	157,053	29.8
1997	126,905	13,258	3,164	143,327	27.8
1998	143,396	12,306	3,152	158,854	31.4
1999	164,265	13,376	2,928	180,569	34.8
2000	191,453	15,776	4,548	211,777	38.6
2001	196,827	15,938	4,687	217,452	37.9

^a No special muzzleloader seasons were held before 1977.

a)



b)

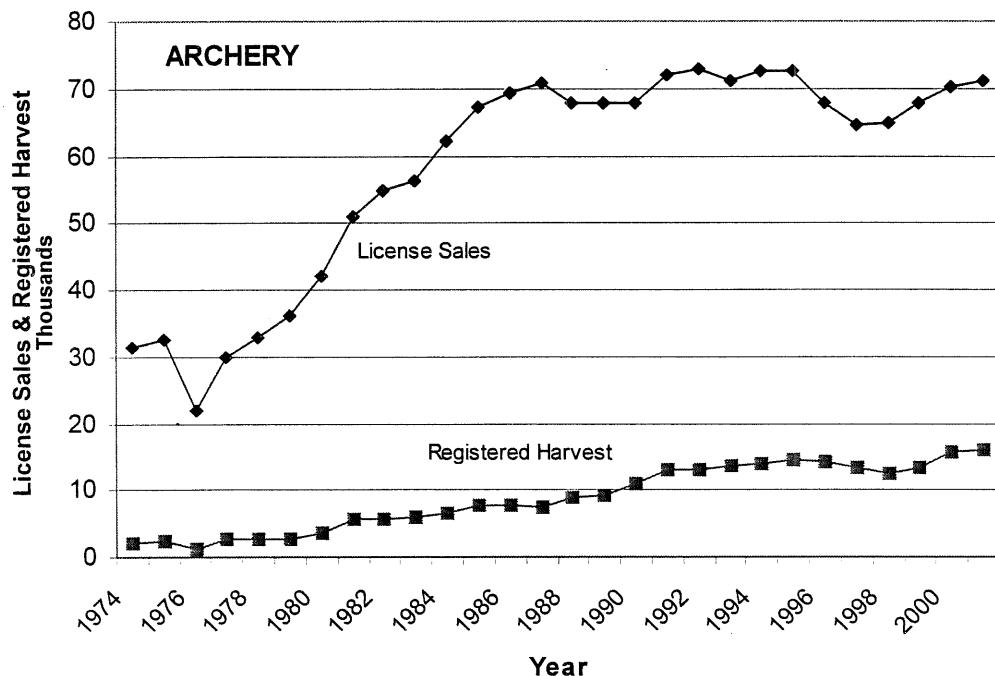


Figure 54. Numbers of Minnesota deer hunting licenses sold and registered harvest by a) firearm and b) archery hunters, 1974 – 2001.

Table 51. White-tailed deer harvest by Sub-DMU and permit area, 2001^a.

Sub-DMU	Permit Area	Antlerless Registered	Bucks Registered	Total Registered Harvest
Red River West	401A(B)	130 (167)	138 (159)	268 (326)
	402A(B)	347 (278)	310 (202)	657 (480)
	Total A(B)	477 (445)	448 (361)	925 (806)
Red River East	403 A(B)	148 (209)	144 (217)	292 (426)
	404 A(B)	342 (388)	358 (358)	700 (746)
	405 A(B)	436 (381)	302 (262)	738 (643)
	406 A(B)	435 (398)	267 (259)	702 (657)
	407 A(B)	352 (247)	333 (231)	685 (478)
	408 A(B)	256 (173)	260 (198)	516 (371)
	Total A(B)	1,969 (1,796)	1,664 (1525)	3,633 (3,321)
Aggasiz	201	69	101	170
	202	324	257	581
	203	9	84	93
	204	773	800	1,573
	205	1,094	763	1,857
	206	670	565	1,235
	207	318	396	714
	208	282	334	616
	209	501	508	1,009
	210	710	723	1,433
	Total	4,750	4,531	9,281
Rainy River West	211	798	1,412	2,210
	213	0	0	0
	214	12	50	62
	Total	810	1,462	2,272
Rainy River Central	104	666	1,256	1,922
	110	455	474	929
	Total	1,121	1,730	2,851
Rainy River East	107	1,356	2,150	3,506
Superior Wilderness	115	1,427	2,127	3,554
	116	6	156	162
	Total	1,433	2,283	3,716
Superior Central	122	163	449	612
Superior East	126	48	407	455
	127	16	81	97
	Total	64	488	552
Itasca North West	167	986	956	1,942
	168	885	1,423	2,308
	283	224	187	411
	Total	2,095	2,566	4,661
Itasca North East	175	1,236	2,029	3,265
	178	1,293	1,967	3,260
	Total	2,529	3,996	6,525

Table 51 (con't.)

Sub-DMU	Permit Area	Antlerless Registered	Bucks Registered	Total Registered Harvest
Itasca South East	180	314	1,360	1,674
	181	1,021	1,808	2,829
	183	1,117	1,712	2,829
	199	41	120	161
	Total	2,493	5,000	7,493
Itasca South West	170	1,922	2,714	4,636
	172	2,308	2,232	4,540
	174	852	1,224	2,076
	Total	5,082	6,170	11,252
Leech Lake I.R.	197	208	934	1,142
Bemidji	284	3,304	3,315	6,619
	285	344	433	777
	287	256	201	457
	Total	3,904	3,949	7,853
Mille Lacs West	244	2,722	2,005	4,727
	245	2,823	2,168	4,991
	251	102	151	253
	Total	5,647	4,324	9,971
Mille Lacs Central	243	1,539	1,117	2,656
	246	2,910	1,988	4,898
	247	1,764	1,755	3,519
	248	426	397	823
	249	1,593	1,422	3,015
	Total	8,232	6,679	14,911
Mille Lacs East	152	71	178	249
	154	1,953	2,084	4,037
	156	1,301	1,619	2,920
	157	3,730	3,007	6,737
	159	2,146	1,667	3,813
	Total	9,201	8,555	17,756
White Earth I.R.	297	76	211	287
	298	136	681	817
	Total	212	892	1,104
Big Woods North	409 A(B)	1,372 (861)	943 (393)	2,315 (1,254)
	410 A(B)	1,826 (826)	1,291 (464)	3,117 (1,290)
	411 A(B)	1,773 (1042)	1,201 (586)	2,974 (1,628)
	412 A(B)	1,198 (457)	969 (293)	2,167 (750)
	413 A(B)	1,183 (595)	957 (416)	2,140 (1,011)
	414 A(B)	963 (666)	990 (439)	1,953 (1,105)
	415 A(B)	740 (372)	569 (205)	1,309 (577)
	416 A(B)	453 (308)	410 (217)	863 (525)
	417 A(B)	882 (410)	780 (284)	1,662 (694)
	418 A(B)	653 (347)	559 (210)	1,215 (557)
	419 A(B)	278 (174)	306 (170)	584 (344)
	429 A(B)	104 (91)	134 (105)	238 (196)
	Total A(B)	11,428 (6,149)	9,109 (3,782)	20,537 (9,931)
Big Woods Central	221	1,257	953	2,210
	222	1,018	847	1,865
	223	789	583	1,372
	224	148	150	298
	225	1,917	1,539	3,456
	Total	5,129	4,072	9,201

Table 51 (con't.)

Sub-DMU	Permit Area	Antlerless Registered	Bucks Registered	Total Registered Harvest
Big Woods Metro North	227	990	967	1957
	228	267	310	577
	235	46	67	113
	236	770	884	1654
	Total	2073	2228	4301
Big Woods Metro South	337 A(B)	218 (149)	268 (64)	486 (213)
	338 A(B)	7 (214)	167 (93)	174 (307)
	339 A(B)	11 (207)	166 (66)	177 (273)
	Total A(B)	236 (570)	601 (223)	837 (793)
Big Woods Southeast	341 A(B)	4 (797)	511 (265)	515 (1,062)
	342 A(B)	3 (653)	487 (209)	490 (862)
	343 A(B)	8 (621)	529 (258)	537 (879)
	344 A(B)	7 (485)	355 (123)	362 (608)
	345 A(B)	16 (599)	472 (182)	488 (781)
	346 A(B)	45 (1,044)	648 (335)	693 (1,379)
	347 A(B)	8 (661)	372 (189)	380 (850)
	348 A(B)	13 (984)	565 (238)	578 (1,222)
	349 A(B)	32 (1,397)	897 (396)	929 (1,793)
	Total A(B)	136 (7,241)	4,836 (2,195)	4,972 (9,436)
Prairie North	420 A(B)	257 (159)	183 (137)	440 (296)
	421 A(B)	231 (120)	203 (97)	434 (217)
	422 A(B)	213 (71)	191 (79)	404 (150)
	423 A(B)	226 (140)	252 (93)	478 (233)
	424 A(B)	232 (216)	243 (145)	475 (361)
	425 A(B)	45 (50)	93 (47)	138 (97)
	426 A(B)	149 (127)	177 (119)	326 (246)
	427 A(B)	107 (64)	165 (83)	272 (147)
	428 A(B)	155 (128)	192 (125)	347 (253)
	Total A(B)	1,615 (1,075)	1,699 (925)	3,314 (2,000)
Prairie River	431 A(B)	128 (131)	129 (74)	257 (205)
	433 A(B)	207 (185)	274 (146)	481 (331)
	435 A(B)	237 (176)	332 (136)	569 (312)
	440 A(B)	309 (160)	265 (85)	574 (245)
	442 A(B)	281 (227)	352 (162)	633 (389)
	443 A(B)	151 (129)	178 (90)	329 (219)
	Total A(B)	1,313 (1,008)	1,530 (693)	2,843 (1,701)
Prairie Southwest	446 A(B)	129 (115)	180 (100)	309 (215)
	447 A(B)	132 (77)	178 (76)	310 (153)
	448 A(B)	165 (81)	197 (114)	362 (195)
	449 A(B)	215 (97)	239 (125)	454 (222)
	450 A(B)	79 (77)	110 (86)	189 (163)
	451 A(B)	108 (113)	157 (149)	265 (262)
	452 A(B)	79 (144)	123 (159)	202 (303)
	453 A(B)	83 (78)	168 (109)	251 (187)
	454 A(B)	215 (202)	267 (203)	482 (405)
	455 A(B)	24 (28)	18 (21)	42 (49)
	456 A(B)	152 (96)	229 (142)	381 (238)
	457 A(B)	145 (149)	156 (130)	301 (279)
	458 A(B)	112 (144)	120 (117)	232 (261)
	459 A(B)	224 (199)	272 (162)	496 (361)
	Total A(B)	1,862 (1,600)	2,414 (1,693)	4,276 (3,293)

Table 51 (con't.)

Sub-DMU	Permit Area	Antlerless Registered	Bucks Registered	Total Registered Harvest
Prairie Southeast	461 A(B)	194 (241)	203 (133)	397 (374)
	462 A(B)	233 (216)	280 (182)	513 (398)
	463 A(B)	126 (110)	126 (67)	252 (177)
	464 A(B)	76 (101)	114 (81)	190 (182)
	465 A(B)	57 (109)	81 (101)	138 (210)
	466 A(B)	130 (218)	241 (228)	371 (446)
	467 A(B)	134 (199)	175 (204)	309 (403)
	Total A(B)	950 (1,194)	1,220 (996)	2,170 (2,190)
Special Hunt Totals	--	571	273	844
GRAND TOTALS		98,137	98,645	196,782

Note: 111 deer that were not assigned to an A or B season were combined into the B season.

Table 52. Archery deer harvest by Sub-DMU and permit areas, 1993-2001.

Sub-DMU	Permit Area	1993	1994*	1995*	1996*	1997*	1998*	1999*	2000*	2001*
Red River West	401	79	97	159	131	103	63	30	54	98
	402	131	120	94	83	74	71	37	88	120
Red River East	403	55	79	121	49	46	43	17	64	59
	404	78	48	91	59	42	56	31	45	70
	405	27	40	20	18	28	32	5	33	51
	406	37	34	14	29	29	40	15	50	70
	407	145	114	98	53	82	27	8	44	86
	408	62	37	35	13	22	44	1	20	32
Agassiz	201	17	11	9	6	2	0	2	3	10
	202	7	16	21	17	6	2	12	14	35
	203	3	2	2	2	1	0	1	0	0
	204	29	62	66	49	29	16	31	65	69
	205	113	151	183	79	58	56	52	101	58
	206	32	62	84	73	42	14	25	50	59
	207	11	14	23	13	16	6	8	20	29
	208	22	33	32	15	6	2	5	10	18
	209	57	48	44	37	44	49	32	36	37
	210	37	33	29	17	31	15	18	33	39
Rainy River West	211	67	96	116	70	18	4	4	77	70
	213	0	0	1	1	1	0	0	0	13
	214	9	11	2	9	6	2	2	7	10
Rainy River Central	104	6	9	10	1	0	2	19	24	14
	110	19	11	17	4	1	2	10	12	15
Rainy River East	107	9	18	20	4	2	2	34	21	38
Superior Wilderness	115	1	0	0	0	0	1	15	12	28
	116	1	1	3	0	0	1	0	0	0
Superior Central	122	9	10	12	4	1	1	1	14	10
Superior East	126	16	9	20	7	3	2	3	14	15
	127	2		1	0	0	1	4	0	2
Itasca North West	167	12	16	13	5	2	3	20	23	21
	168	31	24	32	2	5	4	71	57	63
	283							7	9	11
Itasca North East	175	28	36	50	9	8	10	58	25	67
	178	10	15	12	5	2	5	70	34	62
Itasca South West	170	50	60	60	15	29	26	139	149	143
	172	55	36	47	14	14	28	69	90	64
	174	24	31	24	8	8	12	49	63	54
Itasca South East	180	46	81	86	3	36	45	39	93	103
	181	24	29	32	12	4	10	119	112	154
	183	28	45	42	13	17	25	86	94	93
	199	5	3	2	3	2	2	6	2	5
Leech Lake I.R.	197	7	15	13	9	2	11	12	39	24
Bemidji	284	61	143	113	99	46	72	300	377	296
	285	18	18	30	15	8	7	6	16	10
	287	7	3	10	1	0	0	3	0	3

Table 52 (cont.)

Sub-DMU	Permit Area	1993	1994*	1995*	1996*	1997*	1998*	1999*	2000*	2001*
Mille Lacs West	244	102	68	54	15	56	85	54	151	89
	245	56	67	64	10	43	37	114	164	41
	251	11	2	7	1	2	4	1	3	1
Mille Lacs Central	243							93	86	177
	246	120	159	129	80	142	160	85	160	177
	247	193	208	186	253	222	300	252	340	596
	248	55	51	49	56	41	49	69	155	50
	249	54	74	74	85	71	97	128	82	103
Mille Lacs East	152	3	5	3	6	5	5	10	6	5
	154	26	2	21	28	33	52	122	137	107
	156	30	56	50	67	53	78	82	120	96
	157	44	70	62	66	68	69	231	429	375
	159	121	163	122	147	131	162	157	323	310
White Earth I.R.	297	5	5	7	0	4	0	0	5	1
	298	10	3	2	1	0	1	3	11	7
Big Woods North	409	159	164	185	252	274	217	160	381	290
	410	269	227	242	175	169	84	39	228	251
	411	231	207	202	181	164	163	118	232	338
	412	287	213	269	288	189	111	226	241	242
	413	165	243	288	293	224	266	173	275	239
	414	112	86	234	123	204	210	241	303	289
	415	216	219	205	218	215	243	276	174	335
	416	84	65	84	161	116	157	188	164	141
	417	245	216	256	275	339	180	258	207	189
	418	214	252	252	248	286	188	207	169	163
	419	132	123	246	280	242	227	220	223	252
	429	57	156	76	118	142	121	122	106	125
Big Woods Central	221	83	81	77	126	95	115	112	261	145
	222	100	42	57	48	35	63	53	100	147
	223	218	307	293	342	265	260	250	287	246
	224	16	11	10	17	21	13	10	22	15
	225	151	70	77	154	129	120	351	334	424
Big Woods Metro North	227	381	385	353	382	343	325	396	376	488
	228		689	711	828	734	756	768	772	790
	235	35	35	44	41	68	29	38	29	37
	236	626	602	623	611	572	550	583	524	618
Big Woods Metro South	337	1,223	861	953	901	821	681	817	820	747
	338	195	112	215	158	127	147	82	104	109
	339	155	256	245	244	239	220	226	165	226
Big Woods Southeast	341	196	134	223	279	286	317	363	353	352
	342	118	88	129	133	119	120	128	194	181
	343	281	400	391	467	615	476	573	524	590
	344	99	91	88	105	91	48	70	68	41
	345	148	105	197	154	174	159	145	214	142
	346	197	116	105	190	270	167	168	216	194
	347	141	208	195	197	201	151	184	198	196
	348	153	101	70	163	156	195	171	250	186
	349	129	92	84	150	173	181	182	274	258

Table 52 (cont.)

Sub-DMU	Permit Area	1993	1994*	1995*	1996*	1997*	1998*	1999*	2000*	2001*
Prairie North	420	160	100	94	128	72	0	24	71	83
	421	108	81	81	83	75	29	30	61	82
	422	65	53	52	64	46	38	43	28	38
	423	49	30	46	35	21	38	23	23	33
	424	57	42	65	118	57	23	35	37	28
	425	41	44	102	90	26	19	46	25	20
	426	48	110	101	52	39	38	82	38	53
	427	53	33	51	45	44	43	37	35	48
	428	88	101	89	96	82	80	81	82	106
Prairie River	431	47	48	38	91	56	76	80	33	16
	433	171	174	122	137	151	78	121	114	94
	435	86	79	71	91	99	52	61	64	65
	440	113	74	112	122	130	97	96	121	91
	442	205	191	222	203	191	169	145	221	219
	443	82	94	76	97	72	81	58	87	84
Prairie Southwest	446	29	16	23	31	15	28	16	43	24
	447	48	41	38	45	24	42	24	48	21
	448	42	47	40	41	26	26	20	18	36
	449	92	78	100	113	79	78	36	49	83
	450	26	34	44	32	35	28	33	23	27
	451	76	45	57	79	48	39	35	39	40
	452	97	39	37	83	45	72	53	68	37
	453	46	42	43	57	38	29	39	37	19
	454	130	93	77	156	81	77	85	87	79
	455	19	21	18	11	10	17	16	19	18
	456	79	82	77	80	96	71	93	82	61
	457	61	71	33	78	44	40	58	66	44
	458	53	84	60	83	59	52	54	61	41
	459	71	74	84	106	123	73	91	84	59
	461	86	145	131	108	132	163	125	152	74
	462	127	143	234	275	206	218	265	206	240
	463	43	47	47	44	26	52	34	37	51
	464	57	55	64	125	77	92	50	48	48
	465	82	85	171	172	143	135	159	94	68
	466	122	121	113	164	133	163	223	221	98
	467	129	153	173	162	204	235	130	200	218
Unknown	UNK	8	0	0	0	0	0	0	0	0
Camp Ripley		287	267	247	160	142	175	203	375	350
TOTAL		13,722	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) [†]

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

† Harvest in () shows Intensive Harvest Permit harvest.

Table 53. Muzzleloader Season harvest by block, 2001 (Includes Special Permit Areas)

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
104	1	1	1	0	3
107	2	1	2	0	5
110	2	0	3	0	5
115	3	0	3	0	6
152	1	0	7	1	9
154	7	2	12	2	23
156	6	1	10	2	19
157	15	17	38	11	81
159	10	8	25	1	44
167	2	0	6	0	8
168	2	1	4	1	8
170	15	13	19	4	51
172	2	2	13	3	20
174	1	3	5	2	11
175	3	1	2	1	7
178	8	3	8	1	20
180	9	1	2	0	12
181	6	0	3	0	9
183	1	3	4	3	11
197	0	1	0	0	1
201	6	0	5	0	11
202	2	1	3	0	6
204	14	2	17	3	36
205	13	4	20	3	40
206	6	1	24	4	35
207	4	0	2	0	6
208	2	0	4	0	6
209	2	0	3	1	6
210	6	0	10	0	16
211	15	17	32	4	68
221	8	3	15	4	30
222	9	6	7	7	29
223	5	4	9	5	23
224	1	0	0	0	1
225	12	12	33	15	72
227	11	10	21	5	47
228	7	12	22	7	48
235	3	1	2	1	7
236	9	10	26	8	53
243	4	9	12	2	27
244	5	4	9	4	22
245	4	6	6	5	21
246	7	8	46	10	71
247	20	14	32	6	72
248	2	1	4	1	8
249	8	2	18	3	31
283	0	0	1	0	1
284	7	5	27	4	43
285	2	3	1	0	6
297	0	0	2	0	2
298	0	0	2	0	2

Table 53. (continued).

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
337	14	13	35	6	68
338	3	5	8	4	20
339	2	6	9	3	20
341	3	4	12	2	21
342	3	3	18	7	31
343	11	10	35	10	66
344	3	4	6	3	16
345	3	4	9	2	18
346	7	3	20	3	33
347	11	13	41	9	74
348	8	14	41	9	72
349	4	5	23	6	38
401	18	7	32	6	63
402	23	15	41	10	89
403	10	4	16	1	31
404	11	9	8	6	34
405	10	4	15	4	33
406	1	6	16	0	23
407	17	9	24	12	62
408	7	1	8	1	17
409	6	11	42	7	66
410	17	15	30	7	69
411	3	10	24	5	42
412	14	11	20	5	50
413	11	10	16	9	46
414	12	9	21	6	48
415	19	12	30	15	76
416	15	14	58	15	102
417	24	19	46	12	101
418	17	8	23	5	53
419	13	10	26	10	59
420	11	4	14	1	30
421	11	5	7	3	26
422	15	4	6	0	25
423	4	3	10	2	19
424	5	5	10	2	22
425	14	5	8	1	28
426	13	13	16	4	46
427	9	2	12	0	23
428	8	3	9	0	20
429	4	1	4	0	9
431	0	1	5	3	9
433	20	13	42	11	86
435	9	2	10	6	27
440	11	4	33	3	51
442	28	14	55	15	112
443	10	7	26	6	49
446	22	5	16	0	43
447	8	3	12	3	26
448	19	7	14	4	44
449	18	7	35	3	63
450	13	3	5	3	24

Table 53. (continued)

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
451	10	6	23	7	46
452	34	11	37	7	89
453	13	4	6	1	24
454	39	12	39	4	94
455	8	5	4	1	18
456	16	9	20	5	50
457	4	8	11	2	25
458	7	3	20	1	31
459	21	12	34	9	76
461	11	4	9	4	28
462	12	13	50	6	81
463	7	1	7	4	19
464	1	0	4	1	6
465	14	5	10	2	31
466	16	8	25	2	51
467	21	16	54	15	106
913	0	5	9	3	17
917	0	1	3	0	4
931	0	7	19	8	34
933	9	4	24	3	40
934	0	5	10	2	17
935	0	6	26	8	40
Grand Total	1105	717	2128	499	4449

Table 54. Muzzleloader Special Permit Area Data, 2001.

Area	Dates	Permits Issued	Harvest				Total
			Regular	Adult male	Fawn male	Adult female	
Jay Cooke S.P. (931)	12/01-12/05	90 ^{a, b}	0	7	19	8	34
Sibley S.P. (932) ^d	11/24-11/27	50 ^{a, b}	0	5	9	4	18
Nerstrand S.P. and Prairie Creek Woods SNA (933)	12/01-12/04 12/08-12/09	50 ^b	9	4	24	3	40
Lake Louise S.P. (934)	11/24-11/27	20 ^{a, b, e}	0	5	10	2	17
Lake Shetek S.P. (935)	12/01-12/04	30 ^{a, b}	0	6	26	8	40
Afton S.P. (936)	11/29-12/2	50 ^{b, e}	6	7	21	11	45

^a Permits for these hunts were antlerless only.

^b Management permits were available for these hunts.

^c Illegal buck.

^d Recorded as harvested in Antlerless Permit Area 417.

^e Intensive Harvest permits were available for this hunt.

Table 55. All -season Buck Harvest by Permit Area, 2001.

Permit Area	Adult Male	Permit Area	Adult Male
104	1	349	3
107	8	401	4
110	2	402	9
115	6	403	5
116	1	404	9
127	1	406	5
152	1	407	6
154	4	408	9
156	2	409	10
157	6	410	15
159	3	411	7
168	4	412	51
170	6	413	6
172	7	414	5
174	1	415	8
175	5	416	4
178	3	417	5
180	1	418	11
181	1	419	9
183	1	420	7
197	3	421	1
201	3	422	1
202	1	423	1
204	3	424	3
205	8	425	6
206	5	426	4
207	5	427	3
208	3	428	6
209	5	429	6
210	11	431	4
211	12	433	3
221	14	435	9
222	4	440	2
223	1	442	22
225	4	443	2
227	3	446	10
228	1	447	2
236	1	448	7
243	3	449	12
244	2	450	7
245	6	451	12
246	14	452	5
247	3	453	6
248	2	454	7
249	13	455	1
283	1	456	5
284	13	457	3
285	4	458	4
297	1	459	8
298	1	461	4
337	2	462	3
338	1	463	2
343	3	464	8
344	2	465	4
345	5	466	9
346	4	467	2
347	6		
348	2		
		Total	611

Table 56. Black bear registered harvest and hunter success, 1992-2001.

Quota Area	Harvest (success rate)									
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
12	109(36%)	90(27%)	130(34%)	229(49%)	114(23%)	163(34%)	170(30%)	142(24%)	186(32%)	263(44%)
13	111(36%)	98(32%)	108(34%)	258(59%)	96(22%)	125(35%)	216(31%)	134(17%)	211(26%)	241(31%)
22	40(21%)	26(13%)	33(16%)	29(14%)	5(2%)	21(16%)	8(6%)	10(8%)	4(3%)	6 (7%)
24	253(45%)	199(32%)	176(26%)	288(32%)	93(10%)	251(29%)	274(26%)	257(24%)	168(15%)	273(28%)
25	331(47%)	248(33%)	199(27%)	489(40%)	149(12%)	357(35%)	419(27%)	443(24%)	387(19%)	584(34%)
26	328(40%)	330(39%)	260(30%)	513(59%)	131(15%)	311(38%)	373(38%)	371(32%)	284(23%)	397(32%)
31	554(55%)	342(34%)	260(27%)	636(47%)	188(13%)	402(38%)	544(28%)	483(23%)	413(19%)	697(34%)
41	95(28%)	85(28%)	92(31%)	148(50%)	38(13%)	88(32%)	120(25%)	92(14%)	171(34%)	201(40%)
44	436(36%)	539(37%)	294(24%)	643(43%)	231(16%)	357(24%)	563(25%)	435(18%)	556(22%)	553(23%)
45			91(14%)	173(24%)	106(13%)	143(18%)	170(15%)	153(10%)	150(9%)	178(13%)
51	521(37%)	585(35%)	432(23%)	872(37%)	431(18%)	605(25%)	812(19%)	739(18%)	795(19%)	895(24%)
No Quota	397(27%)	435(29%)	254(17%)	678(35%)	292(16%)	389(22%)	441(25%)	361(20%)	573(25%)	648(23%)
Total	3,175 (40%)	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%)

Table 57. Minnesota bear permits, licenses, hunters, harvests, and success rates during 1990-2001.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Permit applications	24,861	25,890	26,428	27,365	30,127	29,922	30,405	27,353	30,245	29,384	29,275	26,824
Permits available	6,370	7,140	7,920	8,630	9,400	11,950	12,030	11,370	18,210	20,840	20,710	20,710
Licenses purchased:												
Quota area	5,568	6,257	6,845	7,528	8,125	10,304	10,592	9,655	14,941	16,563	17,021	13,867
No-quota area	1,526	1,500	1,640	1,696	1,701	2,144	1,822	1,785	1,796	1,792	2,283	2,643
% Permit-holders buying license ^a	87.4	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
Estimated number of hunters ^b	6,600	7,200	7,900	8,600	9,100	11,600	11,500	10,300	14,500	15,900	16,800	15,500
Harvest	2,381	2,143	3,175	3,003	2,329	4,956	1,874	3,212	4,110	3,620	3,898	4,936
% Success rate ^c	36	30	40	35	26	43 ^c	16 ^d	31	28	23	23	29 ^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) and 69.8% (2001) 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 were calculated using the number of successful hunters, rather than the total number of bears killed, because hunters could take 2 bears (statewide, 4936 bears taken by 4456 successful hunters; in the quota area, 3859 hunters were successful).

Table 58. Success rates of Minnesota bear hunters as measured by registered harvest / licenses sold, 1990-2001.

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

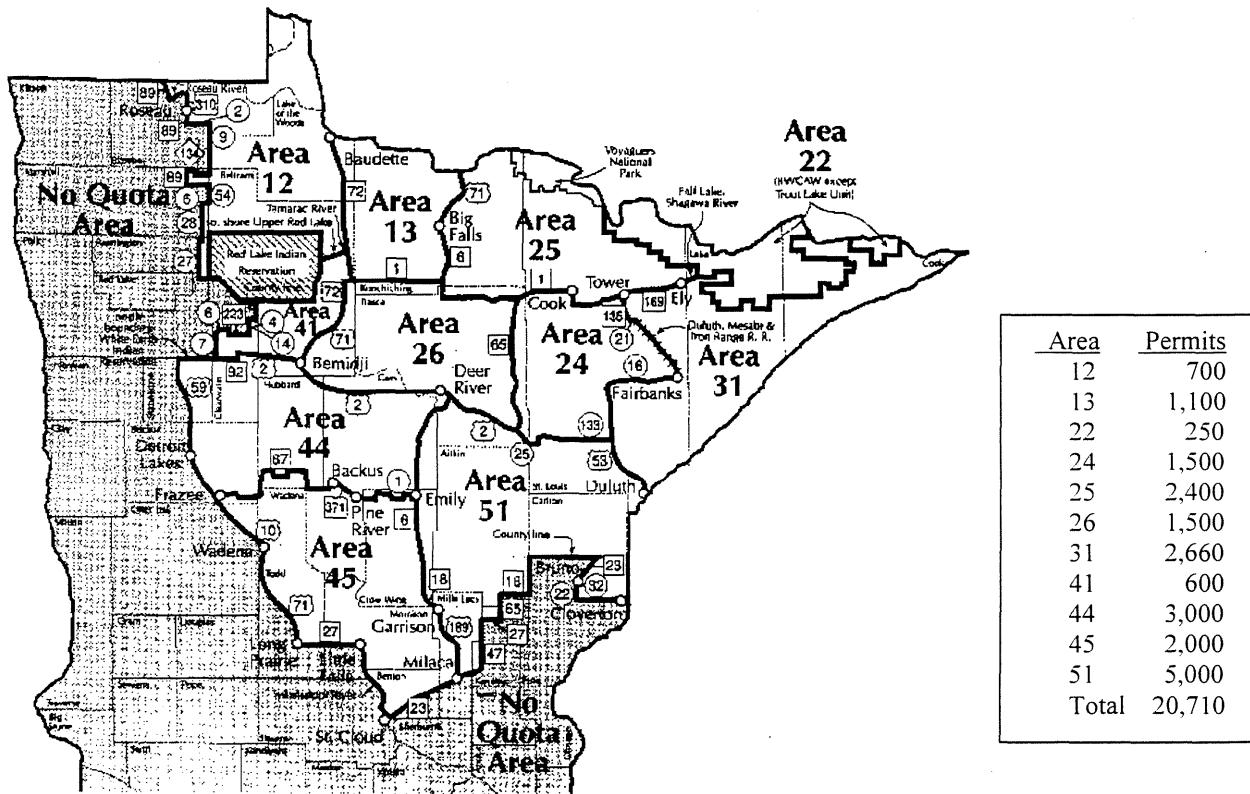


Figure 55. Black bear permit areas, 2001.

Table 59.Moose hunt quota and harvest statistics, 1985-2001.

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			250	83	165 (66%)	85 (34%)
1987	NW	772	14,234	1:11	727	94	505 (69%)	222 (31%)
	NE	528			436	83	292 (67%)	144 (33%)
1989	NW	449	15,381	1:15	438	98	291 (66%)	147 (34%)
	NE	545			444	81	285 (64%)	159 (36%)
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			264	84	200 (76%)	64 (24%)
1994	NW	262	11,351	1:25	245	93	166 (65%)	77 (32%)
	NE	189			155	82	115 (74%)	40 (26%)
1995	NW	191	10,753	1:28	172	90	112 (65%)	60 (35%)
	NE	188			156	83	129 (83%)	27 (17%)
1996	NW	39	6,550	1:27	38	97	31 (82%)	7 (18%)
	NE	207			156	75	123 (79%)	33 (21%)
1997	NW	0			-	-	-	-
	NE	198	3,958	1:20	152	77	124 (82%)	28 (28%)
1998	NW	0			-	-	-	-
	NE	182	4,157	1:23	125	69	90 (72%)	36 (28%)
1999	NW	0			-	-	-	-
	NE	189	3,919	1:21	136	72	101 (74%)	35 (26%)
2000	NW	Cancelled	Cancelled	Cancelled	Cancelled	Cancelled	Cancelled	Cancelled
2001	NW	0			-	-	-	-
	NE	176	3,164	1:18	125	69	108 (86%)	17 (14%)

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Table 60. Trapper response to mail surveys, 1979-80 through 2001-02.

Year	Number mailed	Number not delivered	Delivered questionnaires completed and returned	
			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

Table 61. Use of trapper licenses, 1989-90 through 2001-02.

		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>
		2,606 (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

^a excludes duplicates.

Table 62. Estimated number of trappers of various furbearers, 1987-88 through 2001-02.

	Estimated number of trappers (thousands)														
	1987-88	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
Muskrat	15	7	4	2	2	3	3	4	3	4	4	3	2	2	2
Mink	13	7	5	3	2	3	3	3	2	3	3	3	2	2	2
Short-tailed weasel	1	1	<1	<1	<1	<1	<1	1	<1	<1	1	<1	<1	<1	<1
Long-tailed weasel	2	1	1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1
Raccoon (Sept 01-Feb 02)	11	6	4	2	2	2	3	3	2	3	3	3	2	2	2
Raccoon (Mar 01-Aug 01) ^a								<1	<1	<1	<1	<1	<1	<1	<1
Striped skunk	5	3	2	1	1	1	1	1	1	1	1	1	1	1	1
Eastern spotted skunk	<1	<1	<1	<1	<1	<1	<1	<1	<1	Closed	Closed	Closed	Closed	Closed	Closed
Badger	1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Opossum	2	1	1	1	1	1	1	1	1	1	1	1	<1	<1	1
Red fox (Sept 01-Feb 02)	6	4	2	2	2	2	2	2	2	2	2	1	1	1	1
Red fox (Mar 01-Aug 01) ^a								<1	<1	<1	<1	<1	<1	<1	<1
Gray fox	2	1	1	<1	<1	<1	<1	<1	<1	n.a.	<1	<1	<1	<1	<1
Coyote	2	1	1	1	1	1	1	1	1	1	1	1	1	<1	1
Beaver (Oct 01- Feb 02)	8	4	3	2	2	2	2	3	2	2	3	3	2	2	2
Beaver (Mar 01- Apr 01)	4	2	2	1	1	1	1	2	1	2	2	2	1	1	1

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

Table 63. Estimated take per trapper of various furbearers, 1987-88 through 2001-2002.

	Estimated take per successful trapper reporting that species														
	1987-88	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
Muskrat	69	28	27	24	20	36	64	90	70	55	58	42	46	42	42
Mink	9	9	9	10	8	12	12	12	11	11	11	13	14	12	14
Short-tailed weasel	5	4	5	3	4	5	6	12	10	9	10	7	5	8	10
Long-tailed weasel	4	5	5	3	5	4	4	6	5	5	5	5	5	5	7
Raccoon (Sept 01-Feb 02)	12	13	12	16	14	16	5	20	23	23	24	23	20	20	27
Raccoon (Mar 01Aug 01) ^a								15	15	13	14	15	14	11	19
Striped skunk	10	10	10	12	9	8	9	8	8	10	10	9	8	8	8
Eastern spotted skunk	2	2	5	7	3	2	6	4	5	Closed	Closed	Closed	Closed	Closed	Closed
Badger	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Opossum	7	8	9	11	9	10	8	9	9	9	9	11	13	11	8
Red fox (Sept 01-Feb 02)	9	13	10	18	14	11	11	11	9	7	7	5	6	6	6
Red fox (Mar 01-Aug 01) ^a								9	5	4	4	3	4	4	5
Gray fox	3	4	3	3	2	4	3	2	2	n.a.	3	3	2	2	2
Coyote	3	4	4	3	4	5	5	4	5	4	3	3	4	4	4
Beaver (Oct 01-Feb 02)	16	11	15	13	15	13	16	18	14	16	16	16	16	15	18
Beaver (Mar 01 - Apr 01)	23	14	20	19	27	29	29	37	29	31	32	29	27	26	31

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

Table 64. Minnesota trapper license sales and estimated annual harvest, 1989-90 through 2001-2002^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
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
Estimated harvest ^c (thousands)													
Muskrat	118	55	45	92	202	355	195	202	194	131	97	86	101
Mink	40	25	21	32	33	40	26	35	34	36	27	23	29
Short-tailed weasel	2	1	1	1	2	6	4	4	2	2	3	4	
Long-tailed weasel	2	1	1	1	1	3	2	2	2	2	1	2	
Raccoon (Sept 01- Feb 02)	41	34	31	34	56	58	53	69	66	64	37	32	60
Raccoon (Mar 01-Aug 01) ^f						1	5	5	5	7	4	4	6
Striped skunk	17	15	10	7	9	9	8	11	11	9	5	5	7
Eastern spotted skunk ^g	<1	<1	<1	<1	<1	<1	<1	Closed	Closed	Closed	Closed	Closed	Closed
Badger	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
Red fox (Sept 01- Feb 02)	25	33	25	23	22	24	14	13	12	6	7	6	7
Red fox (Mar 01-Aug 01) ^f						1	1	1	1	<1	<1	<1	<1
Gray fox	2	1	1	1	1	1	1	n.a.	1	1	1	<1	1
Coyote	4	3	3	4	4	5	3	3	3	2	2	2	2
Beaver (Oct 01- Feb 02)	48	24	25	22	29	49	25	38	36	39	31	25	36
Beaver (Mar 01-Apr 01)	31	20	26	34	32	64	41	48	47	55	36	37	42
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
Lynx ^b	Closed												
Bobcat ^e	129	84	106	168	201	238	134	223	359	103	206	231	250
Fisher	1,243	746	528	778	1,159	1,771	942	1,773	2,761	2,695	1,725	1,674	2,119
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

^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 July 10, 2002, 5,534 trapping licenses were sold in 2001, 547 (9.9%) were juvenile licenses and 4,987 (90.1%) 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 65. Average price per pelt paid to hunters and trappers in Minnesota, 1988-89 through 2001-02.

Species	Average pelt prices paid hunters and trappers in Minnesota (dollars)													
	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
Muskrat	2.07	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
Mink (male)	39.76	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
Mink (female)	22.70	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
S.T. Weasel	1.11	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
L.T. Weasel	1.04	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
Raccoon	7.53	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
Striped Skunk	1.90	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
Badger	2.99	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
Opossum	0.62	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
Red Fox	9.89	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
Gray Fox	11.45	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
Coyote	8.43	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
Lynx	No Open Season													
Bobcat	68.31	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
Beaver (fall-winter)	13.84	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
Beaver (spring)	12.62	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
Otter	22.02	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
Fisher (male)	53.83	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
Fisher (female)	99.63	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
Marten (male)	50.08	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
Marten (female)	43.46	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

REGISTERED FURBEARER HARVEST STATISTICS

Forest Wildlife Populations and Research Group

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

Table 66. Registered furbearer harvests and total permits issued, 1985-2001^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

^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.

BOBCAT 2001-2002

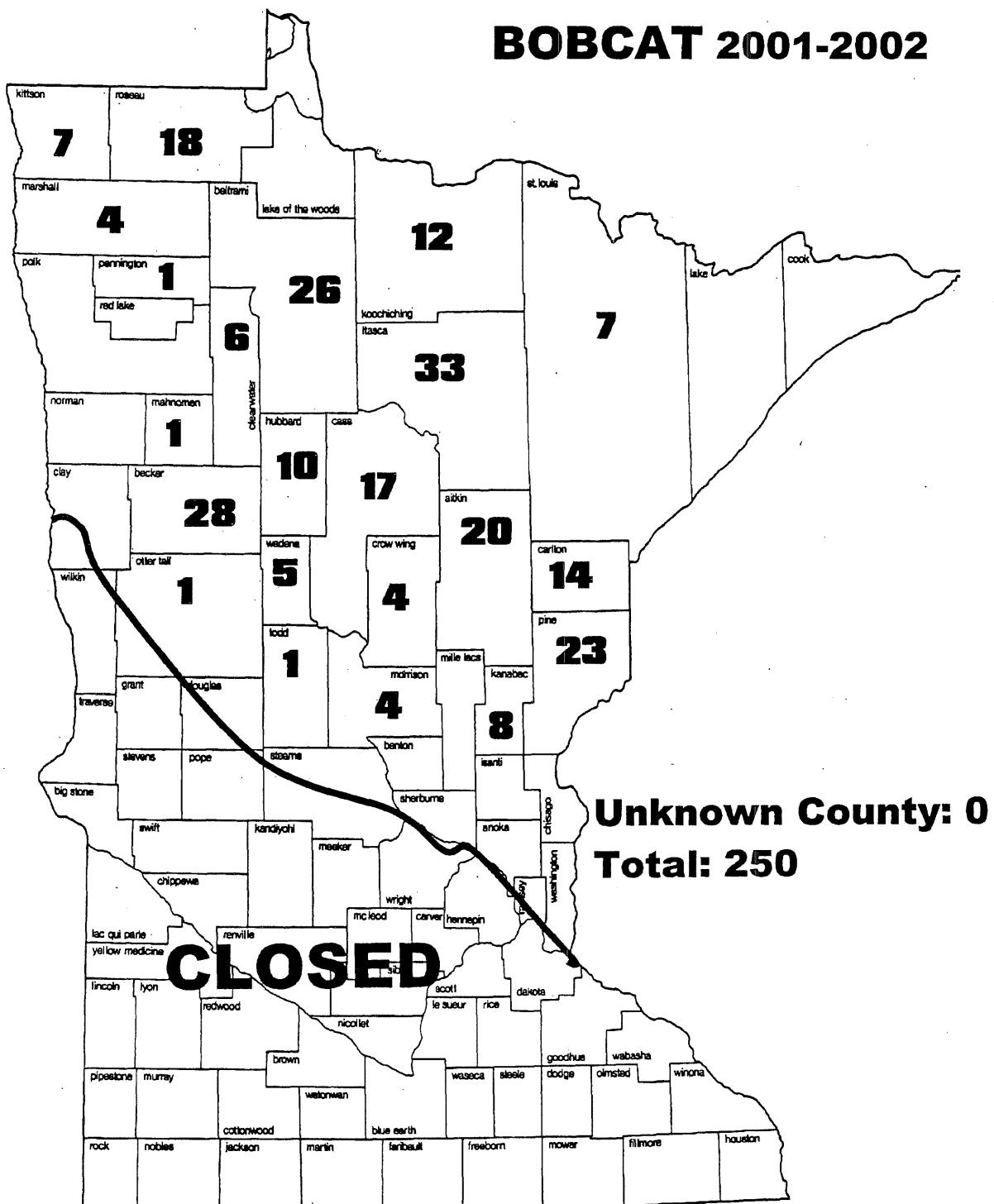


Figure 56. Bobcat harvest by county, 2000-2001.

Table 67. Time distribution of bobcat harvest by 5-day increments, 2001-2002 season.

Interval	Sex			Total	% of Known Total	Cumulative Percent
	M	F	U			
Nov. 24 - 28	6	11	-	17	7	7
Nov. 29 - Dec. 3	21	15	-	36	16	23
Dec. 4 - 8	13	24	-	37	16	39
Dec. 9 - 13	16	16	-	32	14	53
Dec. 14 - 18	7	10	1	18	8	61
Dec. 19 - 23	10	10	-	20	9	70
Dec. 24 - 28	10	13	1	24	10	80
Dec 29 - Jan. 2	12	10	-	22	10	90
Jan. 3 - 6*	12	12	-	24	10	100
Unknown	5	15	-	20	-	-
Total	112	136	2	250	100	100

* 4-day interval

Table 68. Comparison of bobcat harvest by county, 1991-92 through 2001-02.

County	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Aitkin	3	22	28	14	12	20	19	6	25	32	20
Becker	5	1	1	7	5	4	10	1	8	6	28
Beltrami	6	8	15	23	6	20	37	7	13	16	26
Benton	1	0	0	0	1	0	0	0	0	0	0
Carlton	2	10	5	8	5	14	18	4	10	12	14
Cass	14	27	16	31	10	22	64	16	24	11	17
Chisago	0	0	0	0	0	0	0	0	0	0	0
Clearwater	0	5	2	7	6	3	14	1	4	0	6
Cook	0	0	1	0	2	0	0	0	0	0	0
Crow Wing	4	6	3	8	5	5	8	15	21	13	4
Hubbard	3	3	2	4	2	4	19	1	7	4	10
Isanti	0	0	0	0	0	0	0	0	2	0	0
Itasca	16	35	39	51	20	51	45	10	23	40	33
Kanabec	0	4	7	3	1	6	13	3	4	11	8
Kittson	3	3	1	3	3	1	0	0	7	6	7
Koochiching	5	5	3	6	1	23	14	2	8	11	12
Lake	1	5	1	0	2	0	0	1	0	1	0
Lake of the Woods	0	0	0	2	0	2	0	2	2	3	0
Mahnomen	-	-	-	-	1	0	2	0	1	1	1
Marshall	5	0	6	4	2	5	28	4	10	2	4
Mille Lacs	7	3	1	5	3	0	0	0	1	2	0
Morrison	2	5	14	5	6	5	1	2	6	8	4
Ottertail	1	0	2	0	0	0	2	0	0	0	1
Pennington	0	0	0	0	0	2	1	0	0	1	1
Pine	16	11	29	26	23	20	23	12	15	21	23
Polk	0	0	0	0	0	1	1	0	0	1	0
Red Lake	-	-	-	-	-	-	-	-	-	2	0
Roseau	1	3	5	9	1	5	15	3	7	12	18
St. Louis	3	8	10	15	7	7	14	10	5	9	7
Todd	-	-	-	-	-	-	-	2	1	0	1
Wadena	2	0	2	0	2	1	5	1	2	0	5
Unknown	6	5	8	7	8	2	4	0	0	4	0
Total	106	168	201	238	134	223	357	103	206	231	250

FISHER 2001-2002

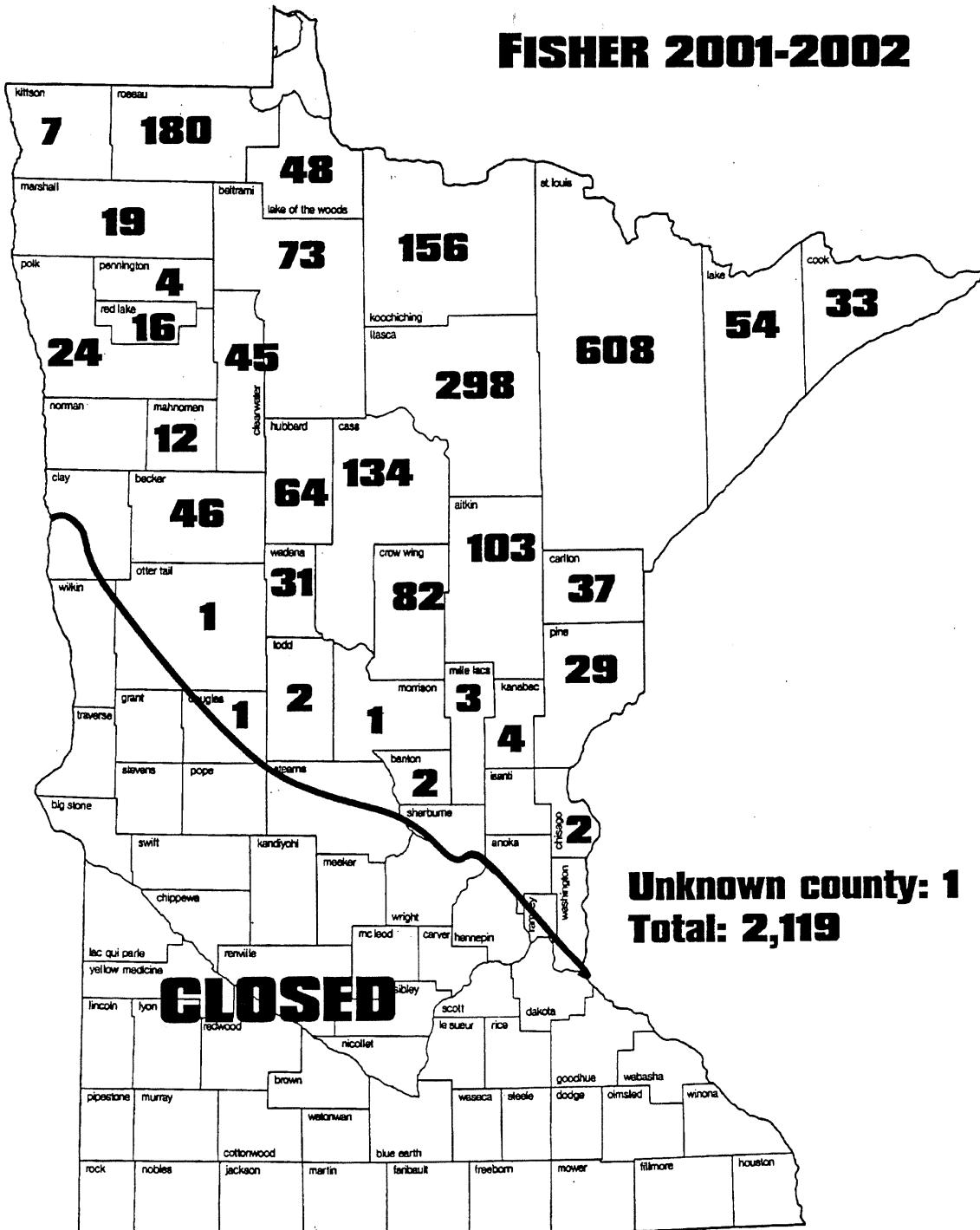


Figure 57. Fisher harvest by county, 2001-2002.

Table 69. Fisher harvest by date and sex, 2001-02 season, in Minnesota.

Date	Sex			Total	% of known Cumulative	
	Male	Female	Unknown		Total	Percent
Nov. 24	4	5	0	9	0	0
Nov. 25	46	38	0	84	4	5
Nov. 26	73	65	0	138	7	11
Nov. 27	67	44	0	111	5	17
Nov. 28	71	41	0	112	6	22
Nov. 29	49	33	0	82	4	27
Nov. 30	56	38	0	94	5	31
Dec. 1	110	91	2	203	10	41
Dec. 2	62	50	1	113	6	47
Dec. 3	64	57	1	122	6	53
Dec. 4	35	51	0	86	4	57
Dec. 5	74	87	3	164	8	65
Dec. 6	83	82	0	165	8	73
Dec. 7	85	75	4	164	8	81
Dec. 8	110	97	0	207	10	92
Dec. 9	92	78	2	172	9	100
Unknown	48	45	0	93	-	-
Total	1129	977	13	2,119	100	100

Table 70. Fisher harvest by county and sex, 2001-02 season, in Minnesota.

County	Sex			Total
	Male	Female	Unknown	
Aitkin	58	45	0	103
Becker	28	18	0	46
Beltrami	47	25	1	72
Benton	0	2	0	2
Carlton	23	14	0	37
Cass	75	59	0	134
Chisago	1	1	0	2
Clearwater	29	12	4	45
Cook	17	16	0	33
Crow Wing	48	34	0	82
Douglas	0	0	0	0
Hubbard	41	23	0	64
Itasca 1	150	144	4	298
Kanabec	2	2	0	4
Kittson	5	2	0	7
Koochiching	91	65	0	156
Lake	20	34	0	54
Lake of the Woods	29	19	0	48
Mahnomen	5	7	0	12
Marshall	12	7	0	19
Mille Lacs	1	2	0	3
Morrison	1	0	0	1
Norman	0	0	0	0
Olmsted	1	0	0	1
Ottertail	1	0	0	1
Pennington	1	3	0	4
Pine	13	16	0	29
Polk	17	7	0	24
Red Lake	5	11	0	16
Roseau	83	97	0	180
St. Louis	309	295	4	604
Todd	1	1	0	2
Wadena	15	16	0	31
Unknown	0	1	0	1
Total	1129	977	13	2119

Table 71. Comparison of fisher harvest by county, 1990-91 through 2001-02.

County	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Aitkin	17	8	15	17	23	26	58	86	105	84	68	103
Becker	5	4	6	4	22	17	15	25	15	32	42	46
Beltrami	34	34	34	44	103	27	84	140	105	70	60	73
Carlton	3	3	8	12	14	14	10	45	25	23	27	37
Cass	34	30	33	57	100	58	142	212	133	123	122	134
Chisago								1	0	134		2
Clearwater	3	2	3	3	13	0	6	31	18	13	15	45
Cook	14	4	17	17	16	12	12	24	26	19	19	33
Crow Wing	12	14	18	23	30	24	32	65	75	53	71	82
Douglas										1	0	
Hubbard	4	6	7	6	8	15	30	66	38	34	34	64
Itasca	99	73	76	177	299	116	291	477	441	248	288	298
Kanabec	0	0	2	0	1	0	6	7	3	11	4	4
Kittson	2	1	0	1	1	0	0	7	3	3	3	7
Koochiching	77	96	97	148	250	92	232	386	369	150	159	156
Lake	78	17	57	82	99	43	60	123	84	46	62	54
Lake of the Woods	27	21	26	8	43	4	30	59	99	83	71	48
Mahnomen	0	0	0	1	1	0	0	0	0	3	0	12
Marshall	3	2	3	7	9	2	4	21	7	10	27	19
Mille Lacs							6	0	3	0	4	3
Morrison										2	0	1
Norman	-----closed-----								0	6	0	0
Ottertail									1	0	0	1
Pennington	0	0	0	0	1	0	1	1	0	2	4	4
Pine	2	0	3	17	23	20	24	34	55	36	37	29
Polk	0	0	0	1	2	3	3	6	5	6	8	24
Red Lake	0	1	0	1	0	0	2	5	0	2	18	16
Roseau	32	21	32	68	93	26	89	134	171	111	157	180
St. Louis	279	187	229	463	616	153	604	783	880	546	369	608
Todd								2	0	0	0	2
Wadena						1	2	10	5	8	0	31
Unknown	21	4	112	2	5	289	30	12	28	2	1	1
Total	746	528	778	1,159	1,771	942	1,773	2,761	2,695	1,725	1,674	2,119

MARTEN 2001-2002

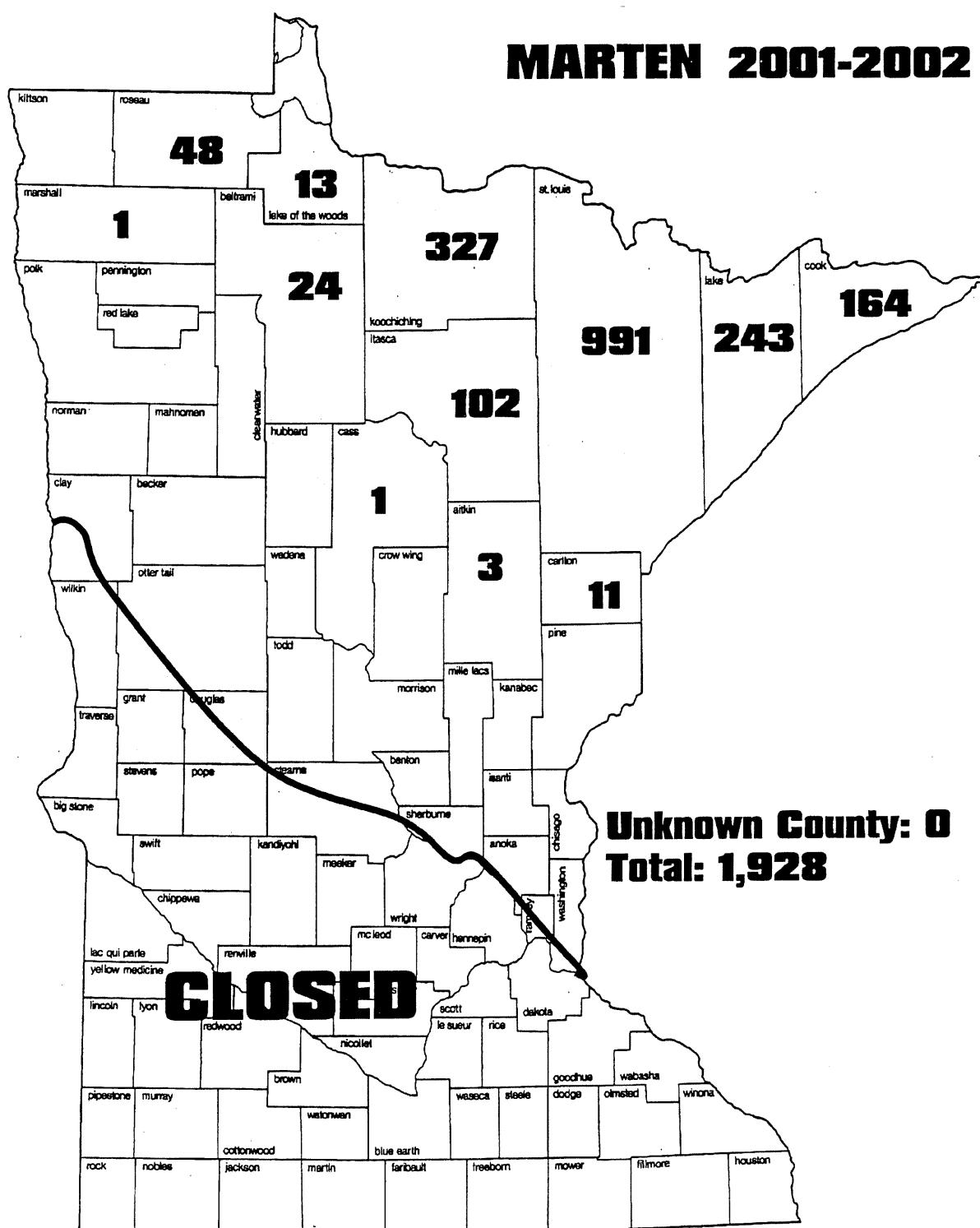


Figure 58. Marten harvest by county, 2001-2002

Table 72. Marten harvest by date and sex, 2001-02 season, in Minnesota.

Date	Sex			Total	% of Known Total	Cumulative Percent
	Male	Female	Unknown			
Nov. 24	8	5	0	13	1	1
Nov. 25	76	50	1	127	7	8
Nov. 26	99	32	2	133	7	15
Nov. 27	82	30	1	113	6	21
Nov. 28	104	45	0	149	8	29
Nov. 29	62	34	0	96	5	34
Nov. 30	85	34	0	119	7	41
Dec. 1	160	49	0	209	12	52
Dec. 2	117	49	0	166	9	61
Dec. 3	82	34	0	116	6	68
Dec. 4	69	25	0	94	5	73
Dec. 5	80	38	0	118	7	79
Dec. 6	64	34	0	98	5	85
Dec. 7	60	31	0	91	5	90
Dec. 8	81	46	0	127	7	97
Dec. 9	36	27	0	63	3	100
Unknown	65	27	4	96	-	-
Total	1,330	590	8	1,928	100	100

Table 73. Marten harvest by county and sex, 2001-02 season, in Minnesota.

County	Sex			Total
	Male	Female	Unknown	
Aitkin	1	2	0	3
Beltrami	16	8	0	24
Carlton	7	4	0	11
Cass	1	0	0	1
Cook	134	30	0	164
Crow Wing	0	0	0	0
Itasca	69	33	0	102
Koochiching	216	111	0	327
Lake	164	79	0	243
Lake of the Woods	8	5	0	13
Marshall	0	1	0	1
Pennington	0	0	0	0
Red Lake	0	0	0	0
Roseau	28	20	0	48
St. Louis	686	297	8	991
Unknown	0	0	0	0
Total	1,330	590	8	1,928

Table 74. Comparison of marten harvest by county in Minnesota, 1990-91 through 2001-02.

County	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Aitkin	Closed	1	2	2	3							
Beltrami	0	0	1	0	1	0	2	12	12	37	2	24
Carlton	Closed	3	6	5	11							
Cass	Closed	1	2	3	1							
Cook	178	69	180	133	164	156	116	195	208	240	190	164
Crow Wing										3	0	0
Itasca	16	12	28	43	41	26	83	164	155	114	82	102
Koochiching	123	115	206	232	313	251	382	597	517	492	306	327
Lake	446	123	357	252	299	252	234	287	284	284	323	243
Lake of the Woods	0	0	0	1	2	0	0	12	26	58	15	13
Marshall	Closed	1	1	1								
Pennington											2	0
Red Lake											3	0
Roseau	Closed	41	51	98	48							
St. Louis	567	336	666	771	707	396	797	980	1,020	1,131	596	991
Unknown	19	1	164	6	0	419	11	14	31	2	1	0
Total	1,349	656	1,602	1,438	1,527	1,500	1,625	2,261	2,299	2,423	1,629	1,928

OTTER 2001-2002

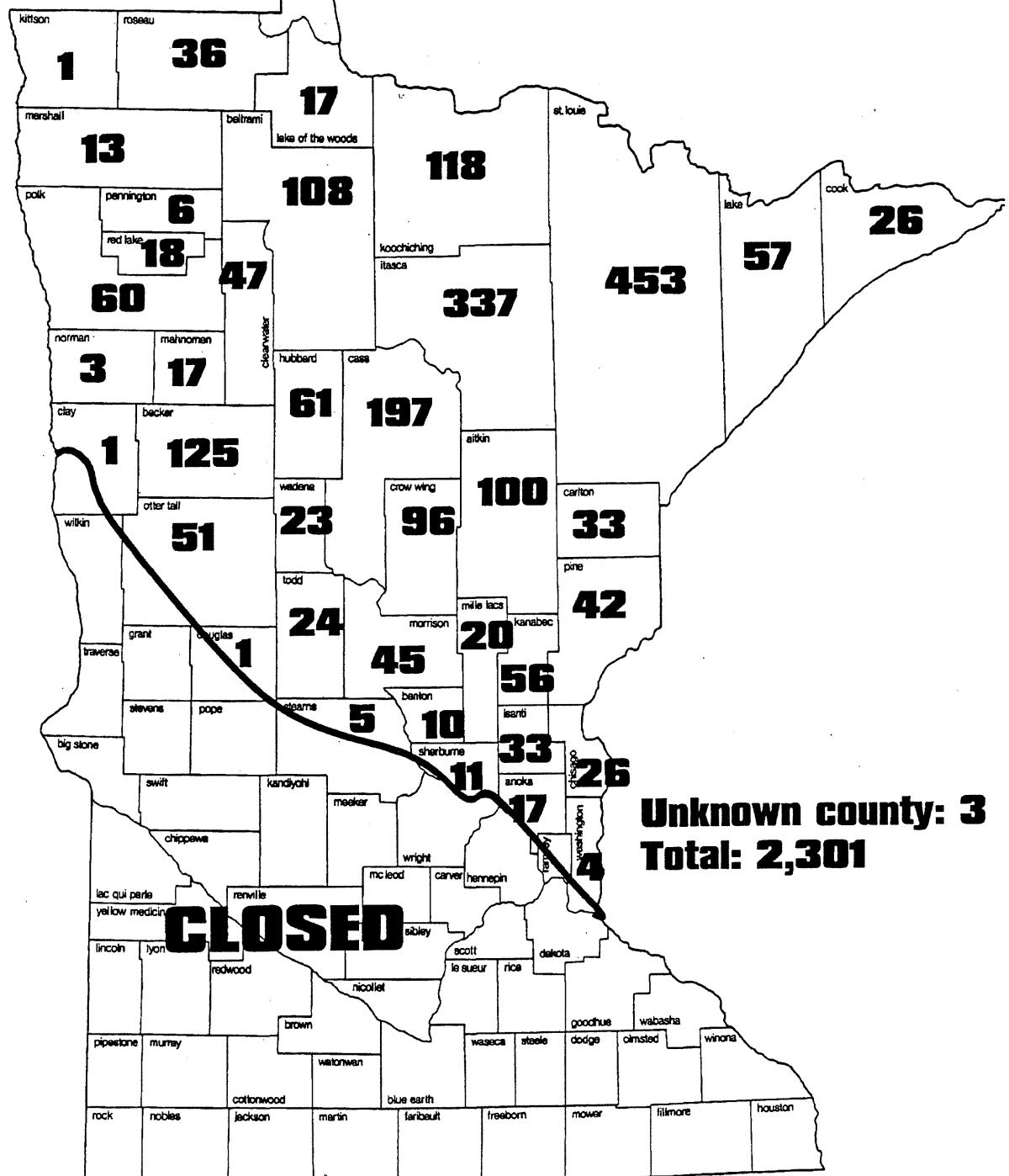


Figure 59. Otter harvest by county, 2001-2002.

Table 75. Otter harvest by 5-day interval and sex, 2001-02 season.

Interval	Sex			Total	% of Known Total	Cumulative Percent
	Male	Female	Unknown			
Oct. 27-31	92	74	0	166	18	8
Nov. 1-5	144	99	0	243	11	19
Nov. 6-10	112	74	0	186	9	27
Nov. 11-15	110	76	0	186	9	36
Nov. 16-20	110	72	1	183	8	44
Nov. 21-25	96	98	3	197	9	53
Nov. 26-30	121	85	2	208	10	63
Dec. 1-5	134	105	0	239	11	74
Dec. 6-10	100	76	7	183	8	82
Dec. 11-15	58	44	0	102	5	87
Dec. 16-20	45	41	0	86	4	91
Dec. 21-25	47	45	0	92	4	95
Dec. 26-30	35	37	0	72	3	98
Dec. 31-Jan. 4	16	11	0	27	1	100
Jan. 5-6*	5	5	0	10	0	100
Unknown	56	61	4	121	-	-
Total	1,281	1,003	17	2,301	100	100

* 2-day interval.

Table 76. Otter harvest by county and sex, 2001-02 season.

County	Sex			Total
	Male	Female	Unknown	
Aitkin	53	47	0	100
Anoka	9	8	0	17
Becker	64	61	0	125
Beltrami	62	46	0	108
Benton	4	6	0	10
Carlton	18	15	0	33
Cass	94	99	4	197
Chisago	13	13	0	26
Clay	0	1	0	1
Clearwater	26	17	4	47
Cook	15	11	0	26
Crow Wing	50	44	2	96
Douglas	0	1	0	1
Hubbard	39	22	0	61
Isanti	15	18	0	33
Itasca	201	134	2	337
Kanabec	33	23	0	56
Kittson	1	0	0	1
Koochiching	73	45	0	118
Lake	29	28	0	57
Lake of the Woods	9	8	0	17
Mahnomen	10	6	1	17
Marshall	11	2	0	13
Mille Lacs	11	9	0	20
Morrison	23	22	0	45
Norman	2	1	0	3
Ottertail	23	28	0	51
Pennington	4	2	0	6
Pine	24	18	0	42
Polk	36	24	0	60
Red Lake	10	8	0	18
Renville	0	1	0	1
Roseau	21	15	0	36
Sibley	1	0	0	1
St. Louis	264	185	4	453
Sherburne	5	6	0	11
Stearns	2	3	0	5
Todd	12	12	0	24
Wadena	12	11	0	23
Washington	1	3	0	4
Wright	1	0	0	1
Unknown	0	0	0	0
Total	1,281	1,003	17	2,301

Table 77. Comparison of otter harvest by county, 1990-2001.

County	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Aitkin	49	44	78	70	83	57	78	95	87	103	82	100
Anoka	14	7	14	18	20	13	13	21	23	25	14	17
Becker	32	21	36	38	62	64	54	85	30	64	45	125
Beltrami	74	93	97	91	166	59	133	133	81	103	74	108
Benton	1	1	0	4	5	0	1	4	6	2	7	10
Carlton	25	23	39	38	40	17	33	43	39	45	29	33
Cass	73	67	107	114	184	124	184	189	149	109	107	197
Chisago	10	5	9	17	26	9	13	20	20	13	12	26
Clay						2	7	0	7	3	1	
Clearwater	6	14	14	27	52	13	57	25	18	29	25	47
Cook	24	30	28	44	53	37	28	29	48	30	26	26
Crow Wing	40	41	83	75	111	59	73	84	81	77	76	96
Douglas	-----closed-----						2	5	7	7	1	1
Hubbard	45	34	44	30	43	48	89	95	28	23	19	61
Isanti	7	5	10	19	20	10	17	29	26	20	28	33
Itasca	108	110	193	259	432	245	383	371	339	220	296	337
Kanabec	18	11	24	32	57	13	20	43	24	29	32	56
Kittson	0	0	1	0	1	1	0	2	1	0	0	1
Koochiching	31	59	52	65	147	68	139	109	126	63	107	118
Lake	26	21	91	44	76	33	62	57	77	44	70	57
Lake of the Woods	6	21	15	1	20	9	16	24	32	36	18	17
Mahnomen	8	0	0	2	21	18	11	6	9	10	10	17
Marshall	0	2	6	7	13	3	14	14	5	8	16	13
Mille Lacs	7	10	5	16	40	7	27	18	17	15	12	20
Morrison	12	3	16	13	34	12	20	25	18	30	17	45
Norman	1	0	0	0	0	4	3	1	0	2	4	3
Ottertail	5	4	5	10	10	19	14	41	29	20	14	51
Pennington	1	1	0	0	0	0	5	6	2	10	2	6
Pine	49	12	76	52	92	59	72	73	62	21	35	42
Polk	7	12	14	28	33	36	45	35	23	21	34	60
Ramsey	1	0	0	0	0	0	0	0	0	0	0	0
Red Lake	0	5	2	5	8	1	9	9	7	8	22	18
Roseau	6	7	14	11	29	3	24	41	40	37	40	36
St. Louis	180	159	187	286	507	148	473	332	421	353	255	453
Sherburne	0	1	8	7	11	10	12	15	13	14	10	11
Stearns	-----closed-----						3	15	15	11	7	5
Todd	0	0	0	1	1	19	22	22	23	16	22	24
Wadena	5	7	2	4	3	9	14	8	6	13	3	23
Washington	3	1	3	0	1	0	7	4	6	4	4	4
Unknown	12	24	91	31	44	203	32	8	12	3	2	3
Total	888	855	1,368	1,459	2,445	1,435	2,219	2,145	1,946	1,635	1,578	2,301

DEMONSTRATION FOREST
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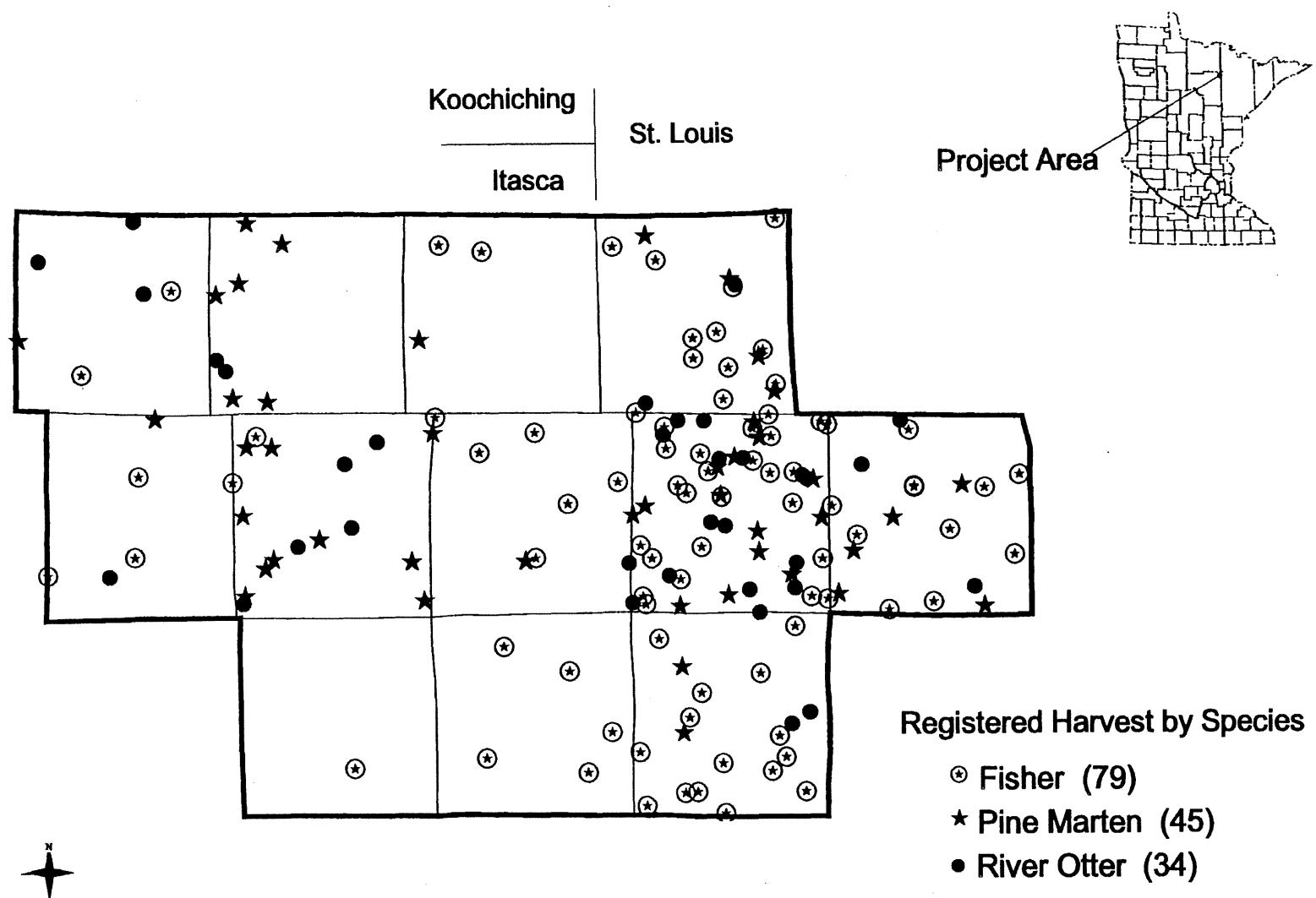


Figure 60. Harvest In the Bear River Demonstration Forest Minnesota, 2001-2002

