HUNTING HARVEST STATISTICS

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2006 Small Game Hunter Mail Survey

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INTRODUCTION

The Minnesota Department of Natural Resources, Division of Fish and Wildlife, Wildlife Research unit annually conducts a survey of small game hunters. Annual harvest estimates from survey data provide guidance for future hunting regulations and season structure.

METHODS

The Wildlife Research unit requests a random sample be drawn from the Electronic License System database in late February, to ensure that each license holder has an equal chance of being in the survey sample. The sample consisted of 6,000 (approximately 2%) Small Game License holders, drawn proportionately from each of the Small Game license types available.

Hunters that returned the survey questionnaire within three weeks, were marked returned and eliminated from follow-up mailings. Follow-up mailings were sent to non-respondents at three week intervals. There were three follow-up mailings to non-respondents.

Completed and returned questionnaires were checked for completeness, consistency, and biological practicability. Cards were marked with numeric county codes corresponding to the hunter's written information. Data from each usable card was converted to an electronic database. Data were checked for errors, duplicate responses, and /or missing data.

Data from all usable cards are tabulated and statistically analyzed by the St. Paul staff, using SAS statistical analysis software programs.

RESULTS

Estimated number of hunters increased for pheasant, doves, woodcock, all 3 species grouse, snowshoe hare, and raccoon (Table 3). Number of duck and Canada goose hunters continued to decline (Table 3) although mean harvest and hunter success rates were up slightly (Table 5). Total estimated harvests increased for ducks, Canada geese, coots, woodcock, mourning doves, pheasants, grouse, snowshoe hares, and raccoons (Table 6). Estimated harvests were down for crows, cottontail rabbits, and coyotes. Note that all estimates are based on a survey of approximately 2% of all small game license holders. Data in this report may change as a result of future verification and more comprehensive analysis.

Survey results follow. All estimates are Statewide unless otherwise indicated.

Table 1. Small game hunter response to mail surveys, 1979 - 80 through 2006 - 07.

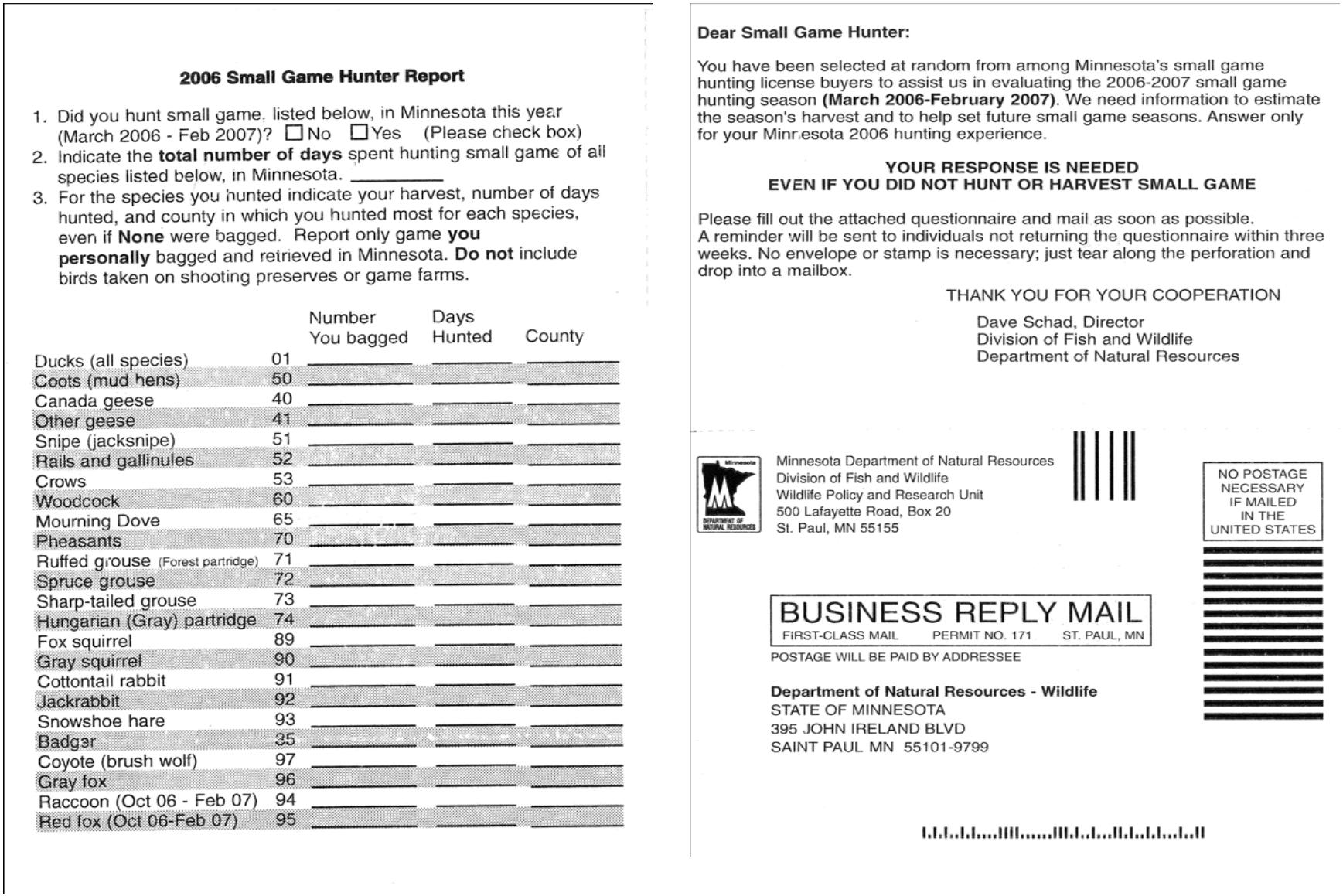
Year	Number mailed	Number not delivered	Delivered questionnaires completed and returned	
			Number	Percent
1979 - 80	5,696	443	4,504	85.7
1980 - 81	6,434	385	4,963	82.0
1981 - 82	6,656	399	5,419	86.6
1982 - 83	5,963	266	4,792	84.1
1983 - 84	4,551	269	3,325	77.7
1984 - 85	4,096	127	3,280	82.6
1985 - 86	3,370	157	2,574	80.1
1986 - 87	4,668	208	3,623	81.2
1987 - 88	5,513	248	4,191	79.6
1988 - 89	15,388	857	11,431	78.7
1989 - 90[a]	10,893	735	7,790	76.7
1990 - 91[a]	5,000	394	3,467	75.3
1991 - 92[a]	5,050	387	3,541	75.9
1992 - 93[a]	5,000	288	3,625	76.9
1993 - 94[a]	5,011	282	3,320	70.2
1994 - 95[a]	5,000	387	3,353	72.7
1995 - 96[a]	5,000	321	3,293	70.4
1996 - 97[a]	5,000	170	3,334	69.0
1997 - 98[a]	5,000	198	3,234	67.3
1998 - 99[a]	5,000	200	3,153	65.7
1999 - 00[a]	5,001	180	3,349	69.5
2000 - 01[a]	5,000	184	3,001	62.3
2001 - 02 [a]	6,000	225	3,667	64.0
2002 - 03 [a]	6,000	363	3,862	68.5
2003 - 04[a]	6,400	381	3,972	66.0
2004 - 05[a]	6,000	356	3,823	68.0
2005 - 06	6,280	142	3,946	64.3
2006 – 07	6,000	151	3,810	65.1

[a] Includes resident and non-resident licenses, and excludes duplicate licenses.

Table 2. Use of small game hunter licenses, 1996-97 through 2006-2007.

		Returns from mail survey	Projections from license sales
1996-97	Hunted	2,631 (79.6%)	237,476
	Did not hunt	674 (20.4%)	60,861
		3,305(100.0%)	298,337
1997-98	Hunted	2,604 (80.7%)	246,285
	Did not hunt	622 (19.3%)	58,901
		3,226 (100.0%)	305,186
1998-99	Hunted	2,612 (82.8%)	265,215
	Did not hunt	541 (17.2%)	55,093
		3,153 (100.0%)	320,308
1999-00	Hunted	2,689 (80.7%)	264,237
	Did not hunt	644 (19.3%)	63,194
		3,333 (100.0%)	327,431
2000-01	Hunted	2,254 (78.7%)	252,518
	Did not hunt	610 (21.3%)	68,344
		2,864 (100.0%)	320,862
2001-02	Hunted	2,849 (77.7%)	231,589
	Did not hunt	610 (21.3%)	66,466
		3,665 (100.0%)	298,055
2002-03	Hunted	2,962 (76.7%)	221,455
	Did not hunt	900 (23.3%)	67,274
		3,862 (100.0%)	288,729
2003-04	Hunted	3,085 (78.2%)	232,206
	Did not hunt	862 (21.8%)	64,733
		3,947 (100.0%)	296,939
2004-05	Hunted	2,934 (77.6%)	223,275
	Did not hunt	847 (22.4%)	64,450
		3,781 (100.0%)	287,725
2005-06	Hunted	3,035 (77.1%)	216,000
	Did not hunt	900 (22.9%)	64,156
		3,935 (100.0%)	280,156
2006-07	Hunted	2,994 (79.0%)	233,759
	Did not hunt	795 (21.0%)	62,139
		3,789 (100.0%)	295,898

Includes resident and non-resident information. Excludes duplicates.



2006 Small Game Hunter Report

1. Did you hunt small game, listed below, in Minnesota this year (March 2006 - Feb 2007)? ☐ No ☐ Yes (Please check box)
2. Indicate the **total number of days** spent hunting small game of all species listed below, in Minnesota. _____
3. For the species you hunted indicate your harvest, number of days hunted, and county in which you hunted most for each species, even if **None** were bagged. Report only game **you personally** bagged and retrieved in Minnesota. **Do not** include birds taken on shooting preserves or game farms.

		Number You bagged	Days Hunted	County
Ducks (all species)	01			
Coots (mud hens)	50			
Canada geese	40			
Other geese	41			
Snipe (jacksnipe)	51			
Rails and gallinules	52			
Crows	53			
Woodcock	60			
Mourning Dove	65			
Pheasants	70			
Ruffed grouse (Forest partridge)	71			
Spruce grouse	72			
Sharp-tailed grouse	73			
Hungarian (Gray) partridge	74			
Fox squirrel	89			
Gray squirrel	90			
Cottontail rabbit	91			
Jackrabbit	92			
Snowshoe hare	93			
Badger	35			
Coyote (brush wolf)	97			
Gray fox	96			
Raccoon (Oct 06 - Feb 07)	94			
Red fox (Oct 06-Feb 07)	95			

Dear Small Game Hunter:

You have been selected at random from among Minnesota's small game hunting license buyers to assist us in evaluating the 2006-2007 small game hunting season **(March 2006-February 2007)**. We need information to estimate the season's harvest and to help set future small game seasons. Answer only for your Minnesota 2006 hunting experience.

YOUR RESPONSE IS NEEDED
EVEN IF YOU DID NOT HUNT OR HARVEST SMALL GAME

Please fill out the attached questionnaire and mail as soon as possible. A reminder will be sent to individuals not returning the questionnaire within three weeks. No envelope or stamp is necessary; just tear along the perforation and drop into a mailbox.

THANK YOU FOR YOUR COOPERATION

Dave Schad, Director
Division of Fish and Wildlife
Department of Natural Resources

Minnesota Department of Natural Resources
Division of Fish and Wildlife
Wildlife Policy and Research Unit
500 Lafayette Road, Box 20
St. Paul, MN 55155

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Figure 1. Sample of Small Game Hunter survey card

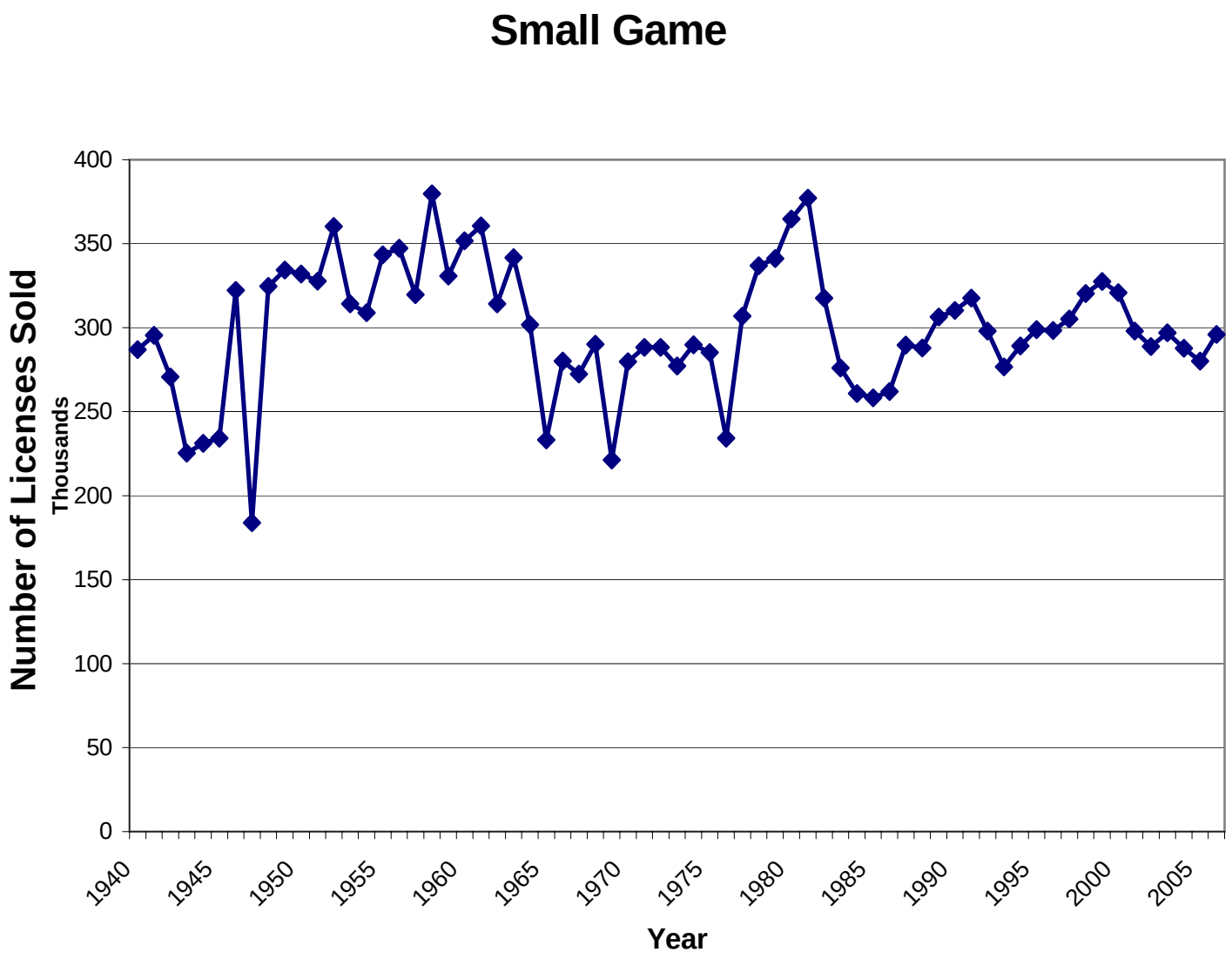

Figure 2. Number of Minnesota small game licenses sold, 1940 – 2006.

Table 3. Estimated number of hunters (thousands) for various species, 1993-94 through 2006-07.

	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Ducks	109	118	119	114	122	117	122	109	109	112	101	105	92	87
Canada goose	62	70	73	75	79	77	80	77	76	79	75	75	69	66
Other geese	9	7	10	6	5	6	5	7	7	6	7	5	5	5
American coot	6	7	9	6	7	5	6	4	4	4	4	5	4	5
Common snipe	2	2	2	2	2	2	2	2	1	2	1	2	1	2
Rails / gallinules	1	1	1	<1	<1	<1	<1	<1	<1	1	<1	<1	0	1
Crow *	10	12	15	13	11	11	14	14	11	13	12	12	12	11
American woodcock	17	21	21	18	17	19	19	16	11	12	13	12	11	14
Mourning dove γ												16	11	13
Ring-necked pheasant	88	92	96	88	80	88	93	100	85	91	105	104	111	119
Ruffed grouse	102	107	116	118	127	142	139	121	101	91	94	79	76	92
Spruce grouse	11	12	14	11	11	11	11	9	9	7	9	7	7	10
Sharp-tailed grouse	8	7	8	7	8	8	8	10	8	6	7	6	5	7
Gray partridge	15	14	12	11	8	10	10	8	7	7	8	5	6	6
Gray squirrel	32	35	35	33	27	30	31	27	26	25	29	23	25	25
Fox squirrel	23	24	23	20	16	18	20	17	15	15	20	15	15	16
Eastern cottontail	21	21	23	19	14	19	18	20	17	16	21	19	20	20
White-tailed jackrabbit	4	4	5	4	3	3	3	2	3	2	3	3	2	3
Snowshoe hare	5	6	5	4	4	7	7	5	6	6	6	4	3	6
Raccoon (Sept 06 - Feb 07)	9	10	10	10	9	9	6	6	6	6	6	6	5	9
Raccoon‡ (March 05-Aug 05)		3	5	4	3	4	3	5	4	4	5	3	3	
Red fox (Sept 06-Feb 07)	16	15	15	11	9	9	8	10	6	7	7	6	6	6
Red fox‡ (March 05-Aug 05)		3	4	3	2	3	2	2	3	2	2	1	1	
Gray fox	3	2	3	n.a.	2	2	2	1	1	1	2	2	1	2
Coyote	14	11	15	13	10	11	11	16	11	12	15	16	19	17
Badger	1	1	<1	1	1	<1	<1	1	<1	1	<1	1	1	1

*Crow season added in 1989. ‡ Raccoon and red fox season continuous May 1994 thru March 15, 2006. γ Mourning dove season added 2004.

Table 4. Estimated take per hunter, for respondents reporting that they hunted a particular species, 1992-93 through 2006-07.

	Estimated take per hunter														
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Ducks	8.1	7.6	8.1	9.7	9.6	9.9	9.5	8.4	8.9	9.1	9.2	9.0	6.9	7.3	8.4
Canada geese	2.5	2.5	2.4	2.5	3.2	2.9	2.8	3.5	3.9	4.0	3.3	3.9	3.8	4.1	4.9
Other geese	0.9	1.1	0.8	0.9	1.4	2.3	1.0	1.2	2.2	1.2	1.9	1.7	1.5	1.9	1.5
American coot	4.7	2.7	3.2	3.1	3.8	4.1	4.7	4.0	2.7	4.5	4.6	2.8	4.0	3.9	5.6
Common snipe	2.9	1.9	1.3	1.6	2.8	2.6	2.9	1.6	1.3	1.3	1.5	1.8	1.1	4.4	1.9
Rails/gallinules	1.7	1.5	1.3	2.3	1.0	0.7	0.5	0.2	3.7	0.6	2.6	0.5	0.3	0	2.4
Crow *	6.2	5.0	9.4	8.5	7.3	6.6	9.3	4.4	6.9	7.7	5.6	6.7	5.8	7.8	6.4
American woodcock	4.7	4.0	3.5	3.9	3.2	3.4	3.3	2.8	2.8	2.3	2.4	2.4	3.5	2.5	3.2
Mourning dove [γ]													6.2	7	6.7
Ring-necked pheasant	3.9	3.8	3.5	4.2	3.9	3.1	3.5	3.7	3.7	3.2	3.9	4.9	4.0	5.3	4.9
Ruffed grouse	4.4	2.8	3.5	3.9	4.5	5.2	6.7	4.9	5.1	3.3	2.8	3.8	2.5	2.9	4.5
Spruce grouse	1.7	1.2	1.9	1.8	1.4	2.3	2.4	1.8	2.5	1.1	1.6	2.1	1.3	1.4	2.7
Sharp-tailed grouse	2.0	1.4	1.2	1.3	1.2	1.7	2.6	1.6	1.6	1.2	1.3	1.7	1.7	1.3	1.8
Gray partridge	2.9	2.4	1.8	2.2	2.2	1.9	2.5	1.9	2.1	1.5	1.7	2.8	2.4	2.6	1.9
Gray squirrel	4.6	5.5	5.4	4.9	4.9	4.9	5.0	4.3	5.3	5.6	5.2	6.0	5.7	5.0	5.5
Fox squirrel	4.2	4.5	4.2	4.6	3.8	4.4	3.3	3.5	3.9	4.1	4.5	4.2	4.1	4.1	4.2
Eastern cottontail	3.1	3.6	3.6	4.3	3.4	4.5	4.6	3.2	3.9	3.6	3.3	4.3	4.6	4.5	3.9
White-tailed jackrabbit	2.1	2.4	1.5	1.5	2.6	1.6	2.5	1.9	2.8	2.6	1.6	2.4	2.3	2.7	1.6
Snowshoe hare	3.2	3.2	3.2	2.0	2.3	2.0	3.5	3.1	5.2	3.3	1.9	2.2	1.8	3.1	3.0
Raccoon (Sept 05 - Feb 06)	8.6	8.9	15.9	14.7	21.3	13.8	16.6	10.9	7.6	9.4	10.0	8.5	9.0	6.0	7.2
Raccoon [‡] (March 05-Aug 05)			8.0	11.3	24.4	5.1	5.8	6.4	7.8	4.4	5.4	4.7	6.1	2.7	
Red fox (Sept 05-Feb 06)	3.3	3.6	2.8	3.1	3.0	1.4	1.3	1.2	1.9	1.2	1.5	1.8	1.1	1.7	1.3
Red fox [‡] (March 05-Aug 05)			1.4	1.5	1.3	0.8	1.2	0.6	0.9	1.5	1.7	0.6	0.6	0.9	
Gray fox	1.3	0.8	0.6	1.0	n.a.	1.3	0.9	0.9	0.7	0.4	0.4	0.4	1.1	0.9	1.8
Coyote	1.5	1.3	1.1	1.8	2.3	1.6	1.3	1.3	1.8	1.1	1.2	1.3	1.1	2.1	1.2
Badger	0.9	0.7	1.4	1.4	2.1	0.9	4.3	1.1	0.8	0.6	1.7	0.7	1.0	1.2	1.3

*Crow season added in 1989. ‡ Raccoon and red fox season continuous May 1994 thru March 15, 2006. γ Mourning dove season added 2004.

Table 5. Mean Harvest for successful hunters and hunter success rates (%), 1996 - 97 through 2006 - 07.

	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Ducks	10.7 (90.2)	11.1 (88.4)	10.8 (87.8)	9.7 (86.2)	10.2 (84.9)	10.6 (85.6)	10.6 (86.7)	10.4 (86.7)	8.6 (81.1)	8.9 (82.5)	9.9 (84.4)
Canada geese	4.3 (75.1)	4.1 (71.2)	4.0 (70.9	4.7 (74.7)	5.3 (74.2)	5.3 (76.3)	4.6 (72.0)	5.1 (76.0)	5.2 (72.8)	5.5 (73.7)	6.3 (78.4)
Other geese	2.6 (52.2)	4.8 (47.2)	2.3 (44.6)	2.8 (38.2)	4.0 (54.1)	2.8 (43.8)	4.4 (42.5)	2.7 (65.3)	3.3 (45.7)	4.5 (43.1)	2.7 (55.2)
American coot	5.1 (75.0)	4.6 (89.2)	6.0 (78.8)	5.5 (73.0)	4.2 (64.7)	7.5 (60.4)	6.4 (71.2)	3.7 (76.9)	5.5 (73.1)	5.1 (75.9)	7.2 (77.6)
Common snipe	3.2 (89.5)	3.1 (83.3)	3.5 (83.3)	2.3 (66.7)	1.5 (85.0)	2.4 (52.9)	2.6 (60.0)	2.3 (78.9)	1.6 (68.0)	4.7 (94.1)	2.6 (75.0)
Rails / gallinules	2.0 (50.0)	2.0 (33.3)	1.0 (50.0)	1.0 (20.0)	3.7 (100.0)	1.5 (40.0)	3.8 (66.7)	1.0 (50.0)	1.0 (33.3)	0.0 (0.0) *	4.3 (57.1)
Crow	7.9 (91.8)	7.1 (93.2)	10.6 (87.6)	5.2 (85.5)	8.2 (84.0)	8.6 (89.4)	6.3 (89.0)	7.9 (85.3)	6.4 (90.8)	9.1 (85.6)	7.2 (89.1)
American woodcock	4.3 (73.5)	4.6 (73.5)	3.7 (87.3)	3.8 (74.6)	3.6 (80.3)	3.4 (68.3)	3.6 (65.6)	3.3 (71.8)	5.3 (64.6)	3.6 (70.3)	3.9 (82.7)
Mourning dove [γ]									7.9 (78.9)	8.7 (80.1)	8.2 (81.2)
Ring-necked pheasant	5.4 (71.2)	4.5 (68.6)	5.0 (70.9)	5.2 (69.8)	5.2 (71.9)	4.7 (66.4)	5.5 (71.7)	6.3 (77.2)	5.7 (70.0)	7.0 (75.9)	6.6 (75.3)
Ruffed grouse	6.0 (75.4)	6.6 (77.9)	8.0 (82.9)	6.3 (78.9)	6.4 (80.7)	4.8 (68.5)	4.3 (63.8)	5.1 (73.5)	3.9 (63.3)	4.4 (67.5)	5.9 (77.4)
Spruce grouse	2.4 (59.1)	3.4 (67.8)	3.4 (68.8)	2.9 (62.7)	4.1 (60.7)	2.3 (47.2)	3.4 (48.0)	3.3 (62.9)	2.3 (54.2)	2.4 (60.6)	3.8 (70.6)
Sharp-tailed grouse	3.1 (39.7)	3.5 (48.2)	4.4 (60.2)	3.4 (48.2)	3.1 (52.9)	2.4 (49.5)	3.5 (38.8)	3.3 (52.2)	3.1 (54.3)	2.4 (55.1)	3.3 (56.0)
Gray partridge	3.3 (66.7)	3.3 (57.5)	3.8 (64.2)	3.1 (62.4)	3.7 (58.6)	2.5 (58.3)	2.8 (59.1)	4.1 (68.9)	3.6 (65.7)	5.0 (52.3)	2.8 (68.8)
Gray squirrel	5.8 (84.3)	5.8 (84.0)	5.8 (86.9)	5.1 (84.7)	6.7 (84.9)	6.6 (84.4)	6.1 (86.2)	7.0 (85.3)	6.9 (82.5)	5.8 (86.1)	6.4 (87.1)
Fox squirrel	4.7 (80.1)	5.3 (82.9)	3.9 (82.7)	4.5 (79.0)	4.8 (80.5)	5.3 (77.7)	5.9 (76.4)	5.1 (82.6)	4.8 (85.1)	5.0 (82.5)	5.0 (84.5)
Eastern cottontail	4.3 (79.9)	5.7 (80.0)	5.6 (83.1)	4.0 (80.0)	4.8 (82.5)	4.7 (77.7)	4.7 (70.5)	5.2 (84.2)	5.8 (79.6)	5.4 (83.4)	4.6 (84.8)
White-tailed jackrabbit	4.0 (65.1)	2.5 (65.5)	3.2 (78.6)	2.6 (72.7)	4.1 (68.2)	5.2 (50.0)	2.7 (60.6)	3.3 (72.5)	3.0 (75.0)	3.2 (82.8)	2.5 (63.6)
Snowshoe hare	3.7 (60.4)	2.8 (70.5)	4.7 (75.4)	3.9 (79.4)	6.3 (82.6)	4.4 (75.0)	2.9 (67.1)	3.5 (60.8)	3.0 (61.4)	4.6 (68.1)	3.8 (80.3)
Raccoon (Sept 06-Feb 07)	22.5 (94.4)	14.8 (92.6)	18.1 (91.8)	11.4 (95.1)	8.0 (94.8)	10.0 (93.6)	11.6 (86.3)	9.6 (88.5)	9.9 (91.6)	6.5 (92.6)	7.7 (93.8)
Raccoon [‡] (March 05-Aug 05)	29.6 (82.2)	6.3 (80.0)	6.2 (92.5)	6.6 (96.2)	8.2 (95.1)	4.9 (90.2)	5.9 (91.7)	5.6 (85.2)	6.7 (90.9)	3.1 (86.8)	
Red fox (Sept 06-Feb 07)	5.3 (57.1)	2.4 (59.8)	2.6 (52.7)	2.4 (51.9)	3.4 (56.7)	2.7 (44.9)	3.1 (49.0)	3.5 (51.0)	2.8 (38.2)	3.7 (46.4)	2.1 (60.0)
Red fox [‡] (March 05-Aug 05)	2.4 (51.6)	1.6 (52.2)	1.8 (65.4)	1.3 (47.4)	1.9 (47.1)	2.8 (54.5)	3.6 (46.7)	1.1 (51.7)	1.4 (44.4)	1.6 (55.6)	
Gray fox	n.a.	2.0 (62.5)	1.6 (53.3)	2.3 (40.0)	2.0 (33.3)	1.4 (26.3)	1.8 (23.5)	1.3 (30.0)	2.6 (40.9)	1.9 (50.0)	2.7 (65.4)
Coyote	4.1 (55.9)	2.8 (57.0)	2.9 (45.0)	2.5 (49.1)	3.4 (53.9)	2.4 (47.3)	3.2 (36.6)	2.7 (48.8)	2.5 (45.3)	4.11 (50.4)	2.4 (50.5)
Badger	2.1 (100.0)	1.0 (85.7)	6.5 (66.7)	1.3 (87.5)	1.0 (83.3)	1.0 (60.0)	2.8 (60.0)	1.0 (66.7)	1.2 (85.7)	1.2 (100.0 0	1.6 (81.8)

[‡] Raccoon and red fox season continuous May 1994 thru March 15, 2006. [γ] Mourning dove season added 2004. * No hunters surveyed reported Rails/Gallinules in bag.

Table 6. Statewide small game hunting license sales and estimated hunter harvest, 1994-95 through 2006-07.

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Small game license sales[a]	289,189	298,425	298,337	305,186	320,308	327,431	320,862	298,055	288,729	296,939	287,725	280,156	295,898
Federal duck stamp sales	149,428	132,546	132,738	138,331	134,098	134,138	135,884	140,980[e]	144,851[e]				
State duck stamp sales	116,346	122,092	122,634	126,009	126,488	128,245	121,709	118,590	119,677	118,757	114,003	102,143	101,792
Pheasant stamp sales	104,621	105,093	95,866	85,093	99,664	106,945	114,440	97,665	102,097	121,456	114,653	117,301	129,546
Estimated harvest[b] (thousands)													
Ducks[c]	955	1,162	1,098	1,206	1,119	1,021	969	990	1,024	914	727	677	731
Canada geese[c]	166	180	241	230	218	285	301	308	257	290	284	282	324
Other geese[c]	6	9	8	11	6	6	15	8	11	13	8	9	7
American coot [c]	22	28	23	29	25	25	10	17	20	11	20	16	25
Common snipe	2	3	5	4	5	3	3	2	3	3	2	5	4
Rails / gallinules	1	1	<1	<1	<1	<1	1	<1	2	<1	<1	0	1
Crow	114	130	96	74	106	60	96	88	72	82	72	93	69
American woodcock	74	82	58	58	63	54	45	27	28	30	41	28	43
Mourning dove[f]											97	78	86
Ring-necked pheasant	319	398	341	248	309	339	375	267	358	511	420	586	588
Ruffed grouse	371	457	533	654	946	685	619	332	249	351	194	224	417
Spruce grouse	23	25	16	25	27	19	23	9	12	18	9	10	27
Sharp-tailed grouse	9	10	8	13	22	14	16	10	9	12	10	6	12
Gray partridge	26	26	24	16	24	19	17	10	11	22	13	16	11
Gray squirrel	187	169	158	131	149	132	140	146	134	175	133	122	141
Fox squirrel	99	105	75	68	57	71	65	63	67	85	62	62	66
Eastern cottontail	77	100	65	65	89	59	78	63	52	93	87	90	78
White-tailed jack rabbit	7	7	10	4	7	6	7	8	4	7	7	5	4
Snowshoe hare	19	11	10	8	25	21	27	22	11	12	8	10	17
Raccoon (Sept 06-Feb 07)	163	155	207	124	143	65	49	59	60	50	57	29	63
Raccoon[d] (Mar 05–Aug 05)	24	55	99	17	2	16	36	18	19	22	20	7	
Red fox (Sept 06-Feb 07)	42	48	33	13	13	10	19	7	11	13	6	10	8
Red fox [d] (Mar 05–Aug 05)	4	6	4	2	3	1	2	4	4	1	1	1	
Gray fox	1	3	n.a.	3	1	2	1	1	1	1	2	1	4
Coyote	13	26	30	16	14	13	29	12	14	20	18	39	21
Badger	1	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 5, 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 that appear in this table. In most years the formula produces results rather close to those obtained by multiplying the average take per hunter times the number of hunters. However, in other years (e.g., 1985) results of the two methods are quite divergent, perhaps as a result of an unusual sample. This is being investigated further, and as a result, numbers may change somewhat in future reports. The most current report of survey findings will have the best data available at that time. Beginning in 1989-90 this table was changed from Resident harvest estimates to Statewide harvest estimates, which includes non-resident harvest estimates.

[a] Duplicate licenses not included.

[b] Estimates based upon response of hunters to questionnaires.

[c] U.S. Fish and Wildlife Service HIP harvest estimates for 2003 are:

Ducks . . . . . 884,500 Canada geese . . . . . 282,495 Other geese 0

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

[e] Federal duck stamps sold have not been audited for non-hunting stamp purchasers. [f.] Mourning dove season added 2004.

Table 7. Mail survey results of nonresident small game hunters, 1993-94 through 2005-06.

	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Nonresident licenses issued[a]	3,809	4,435	4,993	5,488	6,361	7,155	7,572	7001	5,843	5,852	6,291	6,385	5,897	7,356
Questionnaires:														
Number mailed	229	182	205	51	269	200	199	98	124	130	123	182	210	185
Number not delivered	21	7	14	4	18	17	16	6	9	9	17	13	10	11
Number (percent) returned	149 (72)	128 (73)	140 (73)	32 (68)	183 (73)	117 (64)	136 (74)	56 (61)	77 (67)	75 (66)	68 (64)	114 (67)	134 (67)	115 (62)
Estimated nonresidents and (percent) of all nonresidents hunting:														
Ducks	1,789 (47)	1,975 (45)	2,354 (47)	1,209 (19)	2,331 (37)	2,874 (40)	2,505 (33)	2,375 (34)	2,727 (47)	2,263 (39)	2,498 (40)	2,394 (37)	2,040 (35)	2,344 (32)
Canada goose	792 (21)	1,005 (23)	1,248 (25)	686 (13)	1,113 (17)	1,468 (20)	1,225 (16)	1,500 (21)	1,169 (20)	1,092 (19)	1,388 (24)	1,368 (21)	1,818 (31)	2,083 (28)
Ruffed grouse	895 (24)	1,421 (32)	1,534 (31)	2,744 (50)	2,157 (34)	3,608 (50)	3,508 (46)	3,000 (43)	1,169 (20)	2,029 (35)	2,313 (40)	1,824 (29)	1,774 (30)	1,953 (26)
Ring-necked pheasant	741 (20)	832 (19)	820 (16)	515 (9)	731 (11)	612 (8)	947 (13)	625 (9)	935 (16)	1,404 (24)	2,128 (36)	2,679 (42)	2,572 (44)	3,776 (51)
Raccoon[b]	26 (1)	0 (0) [c] *	107 (2) *	172 (3)	35 (1)	0 (0)[c]	56 (1)	250 (4)	0 (0)	0 (0)	0 (0)	0 (0)	44 (0.7)	0 (0)
Estimated nonresident take:														
Ducks	13,574	15,696	26,713	6,346	15,967	26,663	26,391	18,253	42,225	17,556	17,855	19,269	12,149	12,173
Canada goose	2,122	2,287	4,173	1,544	4,905	4,587	6,960	5,001	13,400	5,852	5,736	6,214	3,946	3,580
Ruffed grouse	4,985	7,242	9,415	23,153	16,072	27,886	23,384	24,003	6,622	9,207	9,437	7,924	6,429	11,522
Ring-necked pheasant	3,042	4,366	3,638	1,887	2,505	1,712	4,844	4,001	3,740	7,647	9,344	11,174	13,656	16,079
Raccoon	26	0	3,638	8,061	70	0	724	3,375	0	0	0	0	887	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 1998, 2001, 2002, 2003, 2004 and 2006 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
1998[c]	18	0	56
1999	11	13	48
2000	8	13	51
2001	10	0	48
2002	11	0	46
2003	10	0	44
2004	8	0	46
2005	6	20	44
2006	8	0	53

The following information has been excerpted from: U.S. Fish and Wildlife Service. Migratory bird hunting activity and harvest during the 2005 and 2006 hunting seasons: preliminary estimates. U.S. Department of the Interior, Washington, D.C. U.S.A. The entire report is available on-line at http://www.fws.gov/migratorybirds/reports/reports.htmlT

Table 1. Species composition of the Minnesota waterfowl harvest, 2004 and 2005. (from: Richkus, K.D, Moore, M.T., Padding, P.I., Williams, S.S., Spriggs, H.L., and Martin, E.M., Migratory Bird Hunting activity and harvest during the 2005 and 2006 hunting seasons: preliminary estimates. U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Branch of Harvest Surveys, Laurel, Maryland. July 2007. 62 pp).**Note:** All hunter activity and harvest estimates are preliminary, pending final counts of the number of migratory bird hunters in each state and complete audits of all survey response data.

	Minnesota Harvest					Mississippi Flyway Harvest		
Species	2005	% of Harvest	2006	% of Harvest	Percent change in Harvest 05-06	2005	2006	Percent change Harvest 05-06
Mallard	169,582	31.9	215,727	33.65	+ 21	2,049,383	2,286,643	+ 10
Domestic mallard	240	.04	579	0.09	+ 59	4,539	8,493	+ 47
American black duck	719	.13	1,158	0.18	+ 38	36,365	35,840	– 1
Black x mallard	0	0	290	0.05	+ 100	2,849	4,479	+ 36
Gadwall	15,090	2.84	38,802	6.05	+ 61	635,321	803,785	+ 21
American wigeon	13,174	2.48	20,849	3.25	+ 37	121,240	163,839	+ 26
Green-winged teal	27,545	5.18	47,199	7.36	+ 42	513,850	659,628	+ 22
Blue-winged /cinnamon teal	50,539	9.51	54,438	10.24	+ 7	314,079	513,876	+ 39
Northern shoveler	13,174	2.48	13,610	2.12	+ 3	195,542	225,492	+ 13
Northern pintail	9,820	1.85	7,818	1.47	– 26	107,276	104,286	– 3
Wood duck	98,204	18.48	81,658	15.36	– 20	673,507	635,053	– 6
Redhead	16,767	3.15	24,613	4.63	+ 32	62,051	69,500	+ 11
Canvasback	8,623	1.62	13,030	2.45	+ 34	32,786	45,640	+ 28
Greater scaup	1,437	0.27	1,737	0.33	+ 17	24,812	21,454	– 16
Lesser scaup	12,934	2.43	21,717	4.09	+ 40	111,357	101,219	– 10
Ring-necked duck	75,689	14.24	80,499	15.15	+ 6	240,090	353,705	+ 32
Goldeneye	7,186	1.35	3,185	0.60	– 126	23,420	19,906	– 18
Bufflehead	3,832	0.72	6,950	1.31	+ 45	42,024	78,889	+ 47
Ruddy duck	479	0.09	1,158	0.22	+ 59	4,235	20,250	+ 79
Scoters	719	0.13	0	0	0	4,921	1,882	–161
Hooded merganser	4,790	0.90	5,791	1.09	+ 17	30,454	37,241	+ 18
Other mergansers	958	0.18	0	0	0	4,164	6,197	+ 33
Total Duck Harvest (retrieved kill)	531,500 ± 12%		641,100 ± 11%		+ 17	5,270,000 ± 5%	6,257,200 ± 5%	+ 16

[a] Sum of all species does not equal total because of rounding error. [b] No percentage change.

Table 2. Top 10 states in number of **adult duck hunters**, 2005, and number of hunter-days and retrieved duck kill, in each (from: Richkus, K.D, Moore, M.T., Padding, P.I., Williams, S.S., Spriggs, H.L., and Martin, E.M., Migratory Bird Hunting activity and harvest during the 2005 and 2006 hunting seasons: preliminary estimates. U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Branch of Harvest Surveys, Laurel, Maryland. July 2007. 62 pp).**Note:** All hunter activity and harvest estimates are preliminary, pending final counts of the number of migratory bird hunters in each state and complete audits of all survey response data.

State	Number of active duck hunters	Duck hunter days afield	Total duck harvest	Seasonal duck harvest per hunter
Texas	84,200 ± 18%	424,900 ± 22%	1,047,800± 22%	12.4 ± 29%
Minnesota	73,800 ± 9%	407,900 ± 10%	641,100 ± 11%	8.7 ± 14%
Wisconsin	60,000 ± 10%	368,700 ± 14%	401,900 ± 12%	6.7 ± 15%
Arkansas	59,000 ± 9%	483,500 ± 11%	1,145,200 ± 13%	19.4 ± 15%
Louisiana	56,000 ± 9%	484,000 ± 12%	1,332,200 ± 14%	23.8 ±16%
California	46,400 ± 10%	521,100 ± 17%	1,480,800 ± 16%	31.9 ± 19%
Michigan	38,000 ± 10%	244,700 ± 11%	384,500 ±14%	10.1 ± 17%
Illinois	37,300 ± 9%	342,100 ± 10%	522,700 ± 11%	14.0 ± 14%
Missouri	29,900 ± 12%	211,600 ± 19%	404,000 ± 18%	13.5 ± 22%
North Dakota	29,700 ± 6%	150,000 ± 8%	378,700 ± 10%	12.8 ± 12%
Mississippi Flyway		3,364,300 ± 4%	6,257,200 ± 5%	
United States		6,788,400 ± 3%	13,808,100 ± 4%	

Table 3. Top 10 states in number of **adult goose hunters**, 2006, and number of hunter-days and retrieved goose kill, in each (from: Richkus, K.D, Moore, M.T., Padding, P.I., Williams, S.S., Spriggs, H.L., and Martin, E.M., Migratory Bird Hunting activity and harvest during the 2005 and 2006 hunting seasons: preliminary estimates. U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Branch of Harvest Surveys, Laurel, Maryland. July 2007. 62 pp).**Note:** All hunter activity and harvest estimates are preliminary, pending final counts of the number of migratory bird hunters in each state and complete audits of all survey response data.

State	**Number of active goose hunters**	**Goose hunter days afield**	**Total goose harvest**	**Seasonal goose harvest per hunter**
Texas	56,500 ± 18%	193,700 ± 25%	298,400 ± 27%	5.3 ± 32%
Minnesota	60,300 ± 9%	325,500 ± 13%	243,400 ± 14%	4.0 ± 16%
Wisconsin	48,600 ± 9%	293,400 ± 15%	113,100 ± 15%	2.3 ± 18%
Michigan	37,200 ± 10%	206,000 ± 12%	157,500 ± 16%	4.2 ± 19%
Pennsylvania	34,100 ± 12%	138,300 ± 15%	171,900 ± 16%	5.0 ± 20%
California	30,500 ± 12%	258,200 ± 21%	146,200 ± 30%	4.8 ± 32%
North Dakota	24,000 ± 6%	110,200 ± 9%	153,700 ± 14%	6.4 ± 15%
Illinois	34,100 ± 10%	258,400 ± 13%	171,600 ± 15%	5.0 ± 18%
Maryland	23,400 ± 7%	135,500 ± 12%	156,800 ± 12%	6.7 ± 14%
Ohio	21,400 ± 17%	162,500 ± 27%	83,600 ± 21%	4.1 ± 27%
Mississippi Flyway		1,950,400 ± 6%	1,444,900 ± 7%	
United States [b]		4,007,100 ± 4%	3,579,100 ± 4%	

[b]. Goose hunter statistics do not include brant hunter statistics for coastal states with brant seasons: Connecticut, Delaware, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Rhode Island, Virginia, California, Oregon, Washington, and Alaska.

Hunter Activity and Goose Harvest During the September 2006 Canada Goose Hunt in Minnesota

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This report documents results of the 2006 September goose hunter mail questionnaire survey.

METHODS

The Canada goose season in the four zones encompassing the majority of Minnesota was 2-22 September 2006 (21 days). A 14-day (2-15 Sep) season was held in the Northwest Goose Zone (Figure. 1). The daily bag limit was 5 geese per day, except in the Southeast Goose Zone where the daily bag was 2. Shooting hours were 1/2 hour before sunrise to sunset. Taking of Canada geese was prohibited on or within 100 yards of all surface waters in the Northwest, Southeast, and Twin Cities Metro Goose Zones, in the Carlos Avery Wildlife Management Area and in the Swan Lake Area. In the Twin Cities Metro Zone and goose refuges open to goose hunting, hunting was not allowed from public road rights-of-way. Goose hunters were required to obtain a $4.00 permit to participate in the September season.

Permittees were randomly selected to receive a post-season hunter survey. Questionnaires were sent to 3,100 permittees following the season. Questionnaires were individually numbered, and up to 3 questionnaires were mailed to individuals who had not responded. Completed questionnaires were double key-punched to reduce errors.

The questionnaire asked hunters which zone they hunted, number of days they hunted, and, for the season as a whole, number of geese taken and number of geese knocked down and not retrieved. The questionnaire also asked whether hunters in the West or Remainder of State Zones had hunted over water or within 100 yards of water and if so, how many geese they had taken.

Statistical Analysis Systems (SAS Institute Inc. 1999-2001, Version 8.2) computer programs were written to summarize responses to the questionnaire survey.

RESULTS AND DISCUSSION

The DNR License Bureau reported that 39,534 Special Canada Goose Season permits were sold prior to 23 September 2006. Response rate to the survey was 72.1% and 71.8% of the respondents indicated that they hunted during the September season. Following the usual pattern, the majority of the hunters indicated they hunted in the Remainder Zone, followed by the West, Twin Cities Metro, Northwest, and Southeast goose zones (Table 1). The Remainder and West zones are the largest zones (Figure. 1). Active hunters were afield an average of 2.9 to 4.1 days, and retrieved 2.9 to 4.4 geese, when totaled according to their hunt zone. Overall, the success rate for active hunters was 66.5%.

The survey estimates that 91,439 Canada geese were harvested with approximately 58% of the harvest in the Remainder Zone and 20% in the West Zone (Table 1). This harvest pattern has remained rather consistent during the 2000-2006 September seasons (Table 2). The U.S. Fish and Wildlife Service adjusts their mail survey statistics by a memory and prestige response bias factor of 0.848 for geese bagged in the Mississippi Flyway (Voelzer et al. 1982:56). Multiplying September Canada goose harvest by the adjustment factor would indicate a 2006 harvest of 77,540.

Of those hunters who indicated that they hunted in the West or Remainder of State Zones (22,835 hunters, Table 1), 35.8% reported that they hunted over water or within 100 yards of water. Of the 71,308 geese harvested in these two Zones (Table 1), 27.0% were taken over water or within 100 yards of water. Despite a slight increase in 2006, the pattern during 2000-2006 suggests that both the proportion of hunters hunting over water and the proportion of geese harvested over water has declined (Tables 3 and 4).

LITERATURE CITED

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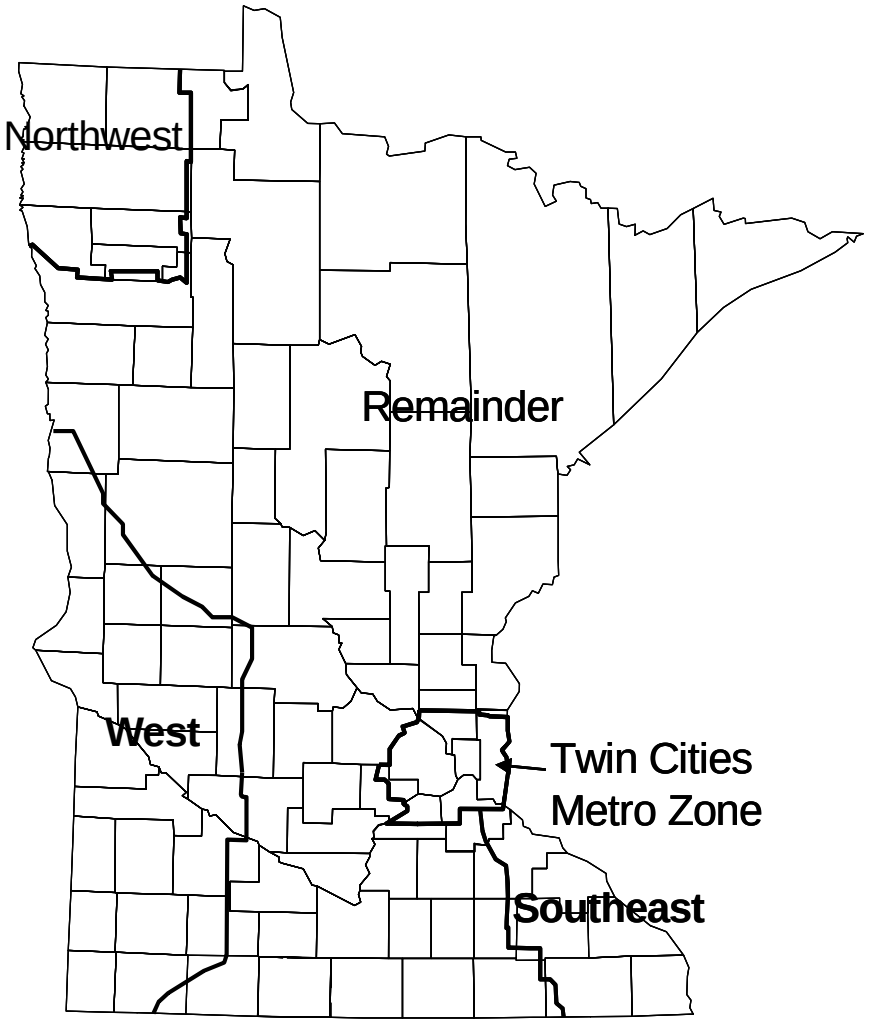

Figure 1. September season Goose Zones in Minnesota.

Table1. Permit sales, hunter activity, and harvest[a] by zone during the September Canada Goose season (2-22 September) in Minnesota, 2006.

Parameter	Northwest	West	Southeast	Twin Cities Metro	Remainder	Total
ALL ZONES						
Total permits sold						39,534
Questionnaires delivered						2,977
Useable questionnaires returned						2,146
% responding						72.1
Active hunters						1,542
% active hunters						71.85
BY ZONE						
% Distribution of hunters by primary hunt zone	5.40	21.91	1.80	12.41	58.48	100
%successful	69.4	67.0	69.0	62.5	66.9	66.5
Days/active hunter	2.92	3.56	4.07	3.90	3.81	
Geese/active hunter	4.45	2.89	2.86	3.36	3.21	
Unretrieved harvest/active	0.85	0.41	0.34	0.81	0.38	
% unretrieved harvest	16.0	12.4	10.6	19.4	10.6	
EXPANDED:						
Active hunters	1,534	6,224	511	3,525	16,611	28,405
Hunter days	4,479	22,157	2,080	13,748	63,288	105,752
Retrieved harvest	6,826	17,987	1,461	11,844	53,321	**91,439**
Est. unretrieved harvest	1,304	2,552	174	2,855	6,312	13,197
Total harvest	8,130	20,539	1,635	14,699	59,633	104,636

[a]Harvest estimates not adjusted for memory/exaggeration bias.

Table 2. Retrieved harvest estimates by zone during the September Canada Goose season in Minnesota, 2000 – 2006.

Year	Northwest	West	Southeast	Twin Cities Metro	Remainder	Total
2000	2,750	18,909	1,183	15,594	51,685	**90,121**
2001	2,047	27,663	538	8,164	62,608	**101,021**
2002	1,568	22,075	848	8,504	50,769	**83,764**
2003	2,805	17,779	2,357	9,890	48,157	**80,988**
2004	4,326	16,843	1,197	11,090	56,480	**89,936**
2005	4,888	15,304	1,717	11,139	61,218	**94,266**
2006	6,826	17,987	1,461	11,844	53,321	**91,439**

Table 3. Proportion of hunters hunting over water[1] and the proportion of Canada geese taken over water in the West Zone during the September season, 2000 – 2002.

Year	% Hunting over water	% Geese taken over water
2000	46.7	30.6
2001	43.2	37.4
2002	44.9	35.1

[1]Over water or within 100 yards of water.

Table 4. Proportion of hunters hunting over water[1] and the proportion of Canada geese taken over water in the **West and Remainder Zones** during the September season 2003-2006.

Year	% Hunting over water	% Geese taken over water
2003	43.1	31.7
2004	39.6	28.9
2005	32.8	22.3
2006	35.8	27.0

[1]Over water or within 100 yards of water.

2007 Light Goose Conservation Order Harvest In Minnesota

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INTRODUCTION

This report documents results of the 2007 Light Goose Conservation Order hunter mail questionnaire survey.

METHODS

Minnesota held a light goose Conservation Order harvest from 1 March - 30 April 2007. Participants were required to obtain a $3.50 permit. No other license, stamp or permit was required. Shooting hours were 1/2 hour before sunrise to 1/2 hour after sunset. There were no daily or possession limits. Use of electronic calls and unplugged shotguns was allowed.

All permit holders were sent a questionnaire after the season. Survey questions are listed in Figure 1. Second and third mailings were sent to non-respondents after one month had elapsed.

RESULTS AND DISCUSSION

A total of 1,292 permits was issued and 921 responses (71.3%) to the questionnaire were obtained (Table 1). In calculating harvest estimates, we assumed that the 371 non-respondents participated in the conservation action and took light geese in the same manner as respondents (i.e., tallies were expanded by 1.40). Relatively few light geese were present in Minnesota again this year and harvest was again concentrated in the southwest portion of the state with some also being taken in west-central Minnesota. Five-hundred fourteen people attempted to take light geese during the 61-day conservation order period. Active participants pursued light geese for 2,302 days and 1,786 light geese were shot and retrieved. This was an average retrieved take of 3.5 geese per active participant. Another 172 light geese were reported wounded and not retrieved.

Unplugged shotguns were used by 224 (43.6%) individuals to take 1032 (57.8%) geese, of which 277 (26.8%) were taken with the 4^{th}, 5^{th}, or 6^{th} shell. Electronic calls were used by 88 (17.2%) participants to take 329 (18.4%) light geese. During the 1/2 hour after sunset period, 209 (11.7%) geese were harvested by 197 (38.3%) active hunters.

Figure 1. Questionnaire mailed to Light Goose Conservation Order license holders.

MINNESOTA 2007 LIGHT GOOSE HARVEST SURVEY

For the Period of March 1 - April 30, 2007 ONLY

You are being asked to provide information to help us evaluate the harvest of light geese (snow, blue, and Ross' geese) in Minnesota during March 1 - April 30, 2007. Your cooperation is important. Please return this survey card even if you did not hunt light geese. Please answer the following questions to the best of your ability.
Please answer only for your Minnesota 2007 hunting experience.
THANK YOU! Dave Schad, Director, Division of Fish and Wildlife, MN DNR.

1. Did you hunt light geese in Minnesota during March 1 - April 30, 2007? Yes / No

If NO, please disregard all remaining questions and return this survey card.

2. How many days did you hunt light geese in Minnesota during March 1 - April 30, 2007? _____
3. In what county did you hunt light geese most often during March 1 - April 30, 2007? _____
4. How many light geese did you personally shoot and retrieve in Minnesota? _____
5. How many light geese did you personally shoot, but were UNABLE to retrieve? _____
6. Did you hunt light geese in Minnesota with a gun(s) that was holding more than 3 shells? Yes / No
7. If yes, how many light geese did you shoot with a gun holding more than 3 shells? _____
8. How many light geese did you shoot and retrieve with the 4^{th}, 5^{th}, or 6^{th} shell? _____
9. Did you hunt light geese in Minnesota with the aid of an electronic caller? Yes / No
10. If yes, how many light geese did you shoot and retrieve with the aid of an electronic caller? _____
11. Did you hunt light geese in Minnesota during the ½ hour after sunset period? Yes / No
12. If yes, how many light geese did you shoot and retrieve during the ½ hour after sunset period? ____

Dear Light Goose Permit holder:

You are being asked to assist us in evaluating the March 1 - April 30, 2007 Light Goose Conservation Order. Please answer only for your Minnesota 2007 hunting experience.

YOUR RESPONSE IS NEEDED EVEN IF YOU DID NOT HUNT THIS YEAR.

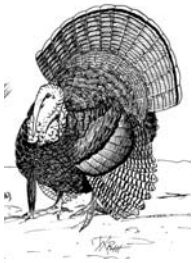
Please fill out the attached questionnaire and mail as soon as possible. A reminder will be sent to individuals not returning the questionnaire within three weeks. No envelope or stamp is necessary; just tear along the perforation and drop into a mailbox.

THANK YOU FOR YOUR COOPERATION

Dave Schad, Director
Division of Fish and Wildlife
Department of Natural Resources

Table 1. Summary of Light Goose Conservation Order harvest in Minnesota, 2000 – 2007.

Parameter	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Total permits sold	1,982	1,128	1,997	1,438	1,424	1,383	1,363	1,292
Usable questionnaires returned	1,457	769	1,375	1,071	1,095	998	955	921
% Responding	73.5	68.2	68.9	74.4	76.9	72.2	70.1	71.3
Active hunters	1,461	393	1,209	553	690	618	516	514
% Active hunters	73.7	34.8	60.5	38.5	48.5	44.7	37.3	39.8
Total hunter days	8,244	2,112	5,517	2,600	3,372	2,643	2,665	2,302
Days/active hunter	5.6	5.4	4.6	4.7	4.9	4.3	5.2	4.5
Retrieved harvest	6,290	316	3,516	2,005	2,735	1,395	1,360	1,786
Geese/active hunter	4.3	0.8	2.9	3.6	4.0	2.3	2.6	3.5
Unretrieved harvest	904	19	637	253	315	150	163	172
No. using unplugged guns	830	193	560	280	333	272	215	224
Take w/unplugged guns	4,416	129	2,137	996	1,385	777	689	1032
Take w/shell 4-5-6	1,316	68	615	401	491	269	287	277
No. using electronic calls	218	56	142	87	133	110	73	88
Take w/electronic calls	854	103	512	474	326	268	280	329
No. hunting ½ hr after sunset	696	141	550	228	265	264	223	197
Take ½ hr after sunset	1,185	43	841	267	311	242	246	209



2006 Fall Wild Turkey Harvest Report

Margaret Dexter, Wildlife Research and Policy Group

INTRODUCTION

In Minnesota, monitoring wild turkey harvest is an important component of population management, which includes setting permit levels for subsequent seasons. Wild turkey populations, permit levels available for the fall season, and harvest have all increased since Minnesota's first fall hunting season in 1990. Fall harvest is affected by wild turkey population size, by harvest pressure, and weather conditions during the fall hunting season.

METHODS

The 2006 fall turkey season took place from 18 October through 29 October (2, 5-day periods). There were 4,290 permits available in the 32 permit areas open to fall hunting, with a total of 4,167 applicants (Table 1). Available permits decreased by 120 permits from 2005 (4,410). Fall turkey hunters are required to register their bird at a designated registration station within 24 hours of harvest. Information collected at registration include turkey age, sex, and date of harvest.

RESULTS AND DISCUSSION

This year's harvest of 618 was down from 2005 (681), and from the 5-year average of 710 (Table 1). The highest harvest occurred in permit area 341 with a total of 79 turkeys registered (Table 2, Figure 1). Hunter success rate was 25% overall, which is below the long-term average of 32%. 59% of the harvest occurred during Season A (October 18-22), and 41% during Season B (October 25-29). Hunter numbers were down 176 this year reflecting a slight decrease from the 5-year average of 2,888 fall turkey hunters. Hunter effort is one factor that impacts fall turkey harvest, and could have contributed to lower harvest levels in 2006.

Females comprised 58% of the overall reported harvest, with adult females accounting for 45% of the harvest alone (Table 3 and 4). Juveniles made up 32% of the harvest (Table 4), this is lower than 2005 (35%). Harvest age ratios are biased by hunter preference for taking adult turkeys. Also, because age data are hunter reported, some juvenile birds are likely misclassified as adults (i.e., it is assumed that hunters are more likely to report shooting an adult).

Table 1. Fall wild turkey applications, permits, harvest and adjusted hunter success rates in Minnesota, 1990-2006.

Year	# Applicants	# Permits Available	# Permits Issued	# Turkeys Registered	Hunter Success (%)[1]
1990	4,522	1,000	951	326	38
1991	2,990	2,200	2,020	552	30
1992	2,782	2,200	2,028	588	32
1993	3,186	2,400	2,094	605	32
1994	3,124	2,500	2,106	601	32
1995	3,685	2,500	2,125	648	34
1996	4,453	2,500	2,289	685	33
1997	4,574	2,580	2,378	698	33
1998	4,526	2,710	2,483	828	37
1999	5,354	2,890	2,644	865	36
2000	5,263	3,090	2,484	735	33
2001	4,501	2,870	2,262	629	31
2002	5,180	3,790	2,945	594	22
2003	5,264	3,870	2,977	889	33
2004	5,878	4,380	3,277	758	26
2005	4,542	4,410	2,978	681	25
2006	4,167	4,290	2,802	618	25

[1] Success rates adjusted using a 10% non-participation rate based on hunter survey data.

Table 2. Fall wild turkey harvest and hunter success rates by permit area, 2006.

Permit Area	# Permits Available	# Permits Issued	# Turkeys Registered	Hunter Success (%)[1]
228	100	73	16	22%
236	210	141	37	26%
337	100	59	13	22%
338	140	104	24	23%
339	140	83	22	27%
341	450	305	79	26%
342	350	183	34	19%
343	200	164	27	16%
344	150	121	22	18%
345	180	88	18	20%
346	300	173	35	20%
347	100	87	21	24%
348	250	174	37	21%
349	450	251	36	14%
420	10	8	3	38%
422	10	10	3	30%
425	10	9	2	22%
431	10	9	1	11%
433	10	10	0	0%
442	250	197	44	22%
443	100	69	9	13%
446	10	5	2	40%
447	10	2	0	0%
448	10	10	3	30%
449	10	9	3	33%
450	10	2	0	0%
461	200	142	38	27%
462	200	127	35	28%
464	60	25	7	28%
465	60	34	11	32%
466	120	64	23	36%
467	80	64	13	20%

[1] Success rates not adjusted for non-participants.

Table 3. Age and sex structure of fall wild turkey harvest by permit area, 2006.
Note: Age and sex are hunter reported and subject to error.

	Male		Female			
Permit Area	Juvenile	Adult	Juvenile	Adult	Unknown	Total
228	1	8	2	5	0	16
236	0	9	8	20	0	37
337	2	4	2	5	0	13
338	3	11	3	7	0	24
339	3	4	1	14	0	22
341	14	18	12	35	0	79
342	7	3	7	17	0	34
343	3	10	3	11	0	27
344	2	3	1	16	0	22
345	2	7	4	5	0	18
346	4	7	5	19	0	35
347	3	4	2	12	0	21
348	8	6	2	21	0	37
349	5	6	8	17	0	36
420	2	1	0	0	0	3
422	0	1	0	2	0	3
425	0	0	0	2	0	2
431	0	0	0	1	0	1
433	0	0	0	0	0	0
442	7	13	8	16	0	44
443	5	3	0	1	0	9
446	0	1	0	1	0	2
447	0	0	0	0	0	0
448	0	0	0	3	0	3
449	0	0	2	1	0	3
450	0	0	0	0	0	0
461	12	10	5	11	0	38
462	15	6	1	13	0	35
464	3	2	1	1	0	7
465	0	1	3	7	0	11
466	8	4	3	8	0	23
467	3	3	0	7	0	13
Total	112	145	83	278	0	618

Table 4. Age and sex structure of fall wild turkey harvest in Minnesota, 1990-2006.
Note: Age and sex are hunter reported and subject to error.

	Male			Female				
Year	Juvenile	Adult	Unknown	Juvenile	Adult	Unknown	Unknown Age/Sex	Total
1990	67 (21%)	83 (25%)		85 (26%)	91 (28%)			326
1991	121 (22%)	80 (15%)		211 (38%)	140 (25%)			552
1992	120 (20%)	86 (15%)		208 (35%)	174 (30%)			588
1993	110 (18%)	112 (19%)		184 (30%)	196 (32%)		3(<1%)	605
1994	105 (17%)	83 (14%)		210 (35%)	203 (34%)			601
1995	131 (20%)	136 (21%)		194 (30%)	187 (29%)			648
1996	96 (14%)	141 (20%)		224 (33%)	224 (33%)			685
1997	115 (16%)	130 (19%)		215 (31%)	238 (34%)			698
1998	152 (18%)	139 (17%)		261 (32%)	274 (33%)		2(<1%)	828
1999	141 (16%)	213 (25%)		253 (29%)	258 (30%)			865
2000	101 (14%)	175 (24%)		206 (28%)	253 (34%)			735
2001	81 (13%)	119 (19%)		178 (28%)	251 (40%)			629
2002	94 (16%)	109 (18%)	2 (<1%)	169 (28%)	205 (35%)	3 (<1%)	12 (2%)	594
2003	121 (14%)	237 (27%)		164 (18%)	347 (39%)	1 (<1%)	19 (2%)	889
2004	90 (12%)	276 (37%)		82 (11%)	296 (40%)		1 (<1%)	745
2005	103 (15%)	129 (19%)		135 (20%)	309 (45%)		5(<1%)	681
2006	112 (18%)	145 (23%)		83 (13%)	278 (45%)			618

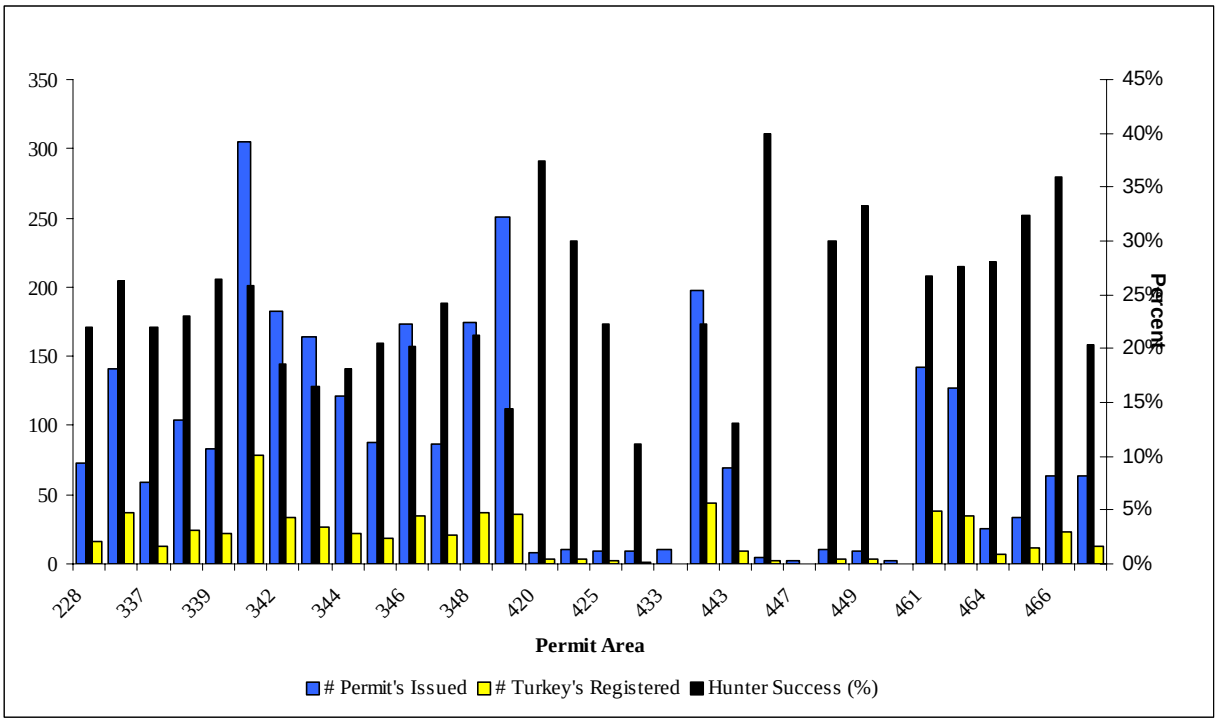
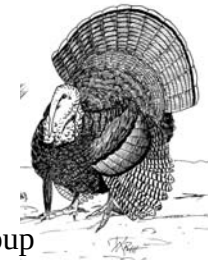


Figure 1. Total harvest, permits issued, and hunter success rate for the 2006 fall wild turkey hunting season in Minnesota.



2007 Spring Turkey Harvest Report

Angela Isackson, Farmland Wildlife Populations and Research Group

INTRODUCTION

In Minnesota, monitoring wild turkey harvest is an important component of population management, which includes setting permit levels for subsequent seasons. Wild turkey populations, permit levels available for the spring season, and harvest have all increased substantially since Minnesota's first modern hunting season in 1978. Spring harvest is affected by a variety of factors including wild turkey population size, harvest pressure, access to land for hunting, interference by other hunters, and weather conditions during the spring hunting season.

METHODS

Spring turkey hunting opportunities are now available in approximately half of Minnesota (Figure 1). The 2007 spring turkey season took place from 18 April through 31 May (6, 5-day time periods and 2, 7-day time periods). An archery permit was offered the last 2 time periods in any permit area with at least 50 permits per time period. Spring turkey hunters are required to register their bird at a designated registration station within 24 hours of harvest. During registration, sex, age, and harvest data are recorded.

RESULTS

A total of 52,566 applications were received for the 33,976 available permits (Table 1). The chance of being drawn for a permit varies by permit area (PA) and time period selected by the hunter. There were 28,320 total regular permits and 3,072 archery permits issued. Surplus permits after the initial lottery drawing accounted for 8% (2,237) of regular permit sales.

A total of 9,412 turkeys were registered in spring 2007 compared to 8,241 in 2006 (Table 1, Figure 2). Overall hunter success was 33.2%, slightly higher than last year (29.6%) and slightly higher than the 5-year average of 32.0%. The highest harvest occurred in PA 349 where 592 turkeys were registered (Table 2). Most PAs (80%) showed increased (n = 50) or identical (n = 3) harvests from 2006. Hunter success by PA ranged from 9.4% (PA 456) to 75.0% (PA 422; Table 2). Hunters in the first 2 time periods had the highest success rates (44.1% and 39.5%, respectively), with lower success rates in subsequent time periods, following the 5-year trend (Table 3).

Youth hunts were included in this year's harvest report with 53 turkeys registered. Previous reports have not included the number of turkeys registered during youth hunts. Persons participating in youth wild turkey hunts must be at least 12 years of age and under 18 years of age by the beginning hunt date. Youth hunt permittees may hunt in open PAs and special seasons as designated by the commissioner. This year youth hunt seasons took place from 14 April through 20 May (6, 2-day time periods) (Table 3). There were 160 total youth hunt permits issued with an overall youth hunter success of 33.1%.

DISCUSSION

Total harvest for spring 2007 (9,412) was slightly higher than spring 2006 (8,241). The increase occurred from increased harvests in all time periods compared to 2006. Weather conditions for spring hunting in 2007 were generally good, with rainy spells in the 7th and 8th time period (G and H), and temperatures above average. Hunters did comment on rain and wind causing problems in 26 PAs during the first 4 seasons from a survey of Spring 2007 turkey hunters.

Table 1. Spring and fall wild turkey applications, permits, and harvest in Minnesota, 1978-2007.

Year	Spring Applications	Spring Permits Available	Spring Permits Issued	% of Available Issued	Spring Harvest	% Spring Hunter Success[a]	Fall Applications	Fall Permits Available	Fall Harvest
1978	10,740	420	411	97.9	94	22.9	-	-	-
1979	11,116	840	827	98.5	116	14.0	-	-	-
1980	9,613	1,200	1,191	99.3	98	8.2	-	-	-
1981	8,398	1,500	1,437	95.8	113	7.9	-	-	-
1982	7,223	2,000	1,992	99.6	106	5.3	-	-	-
1983	8,153	2,100	2,079	99.0	116	5.6	-	-	-
1984	7,123	3,000	2,837	94.6	178	6.3	-	-	-
1985	5,662	2,750	2,449	89.1	323	13.2	-	-	-
1986	5,715	2,500	2,251	90.0	333	14.8	-	-	-
1987	6,361	2,700	2,520	93.3	520	20.6	-	-	-
1988	8,402	3,000	2,994	99.8	674	22.5	-	-	-
1989	13,007	4,000	3,821	95.5	930	24.3	-	-	-
1990	14,326	6,600	6,126	92.8	1,709	27.9	4,522	1,000	326
1991	15,918	9,170	8,607	93.9	1,724	20.0	2,990	2,200	552
1992	16,401	9,310	9,051	97.2	1,691	18.7	2,782	2,200	588
1993	17,800	9,625	9,265	96.3	2,082	22.5	3,186	2,400	605
1994	19,853	9,940	9,479	95.4	1,975	20.8	3,124	2,500	601
1995	21,345	9,975	9,550	95.7	2,339	24.5	3,685	2,500	648
1996	23,757	12,131	10,983	90.5	2,841	25.9	4,453	2,500	685
1997	25,958	12,530	11,610	92.7	3,302	28.4	4,574	2,580	698
1998	29,727	14,035	13,229	94.3	4,361	33.0	4,526	2,710	828
1999	39,957	18,360	16,387	89.3	5,132	31.3	5,354	2,890	865
2000	42,022	20,160	18,661	92.6	6,154	33.0	5,263	3,090	735
2001	41,048	22,936	21,404	93.3	6,383	29.8	4,501	2,870	629
2002	42,415	24,136	22,607	93.7	6,516	28.8	5,180	3,790	594
2003	44,415	25,016	22,770	91.0	7,666	33.7	5,264	3,870	889
2004	48,059	27,600	25,261	91.5	8,434	33.4	5,878	4,380	758
2005	49,181	31,748	27,638	87.1	7,800	28.2	4,542	4,410	681
2006	45,704	32,624	27,876	85.4	8,241	29.6	4,167	4,290	618
2007[b]	52,566	33,976	28,320	83.4	9,412	33.2	-	-	-

[a] Success rate not adjusted for non-participants.

[b] Youth hunts included in 2007 data only.

Table 2. Spring wild turkey harvest and hunter success rates by permit area in Minnesota, 2007.

Permit Area	Permits Available	Permits Issued[a]	Registered Harvest	% Hunter Success (2007)[b]	% Hunter Success (3-5 Yr Ave)[c]
157	160	140	63	45.0	38.7 (4)
159	40	40	18	45.0	36.4 (4)
213[d]	360	329	143	43.5	NA
214[e]	200	172	63	36.6	37.9 (4)
215[e]	600	516	241	46.7	40.9 (5)
218[d]	560	506	272	53.8	NA
219[e]	360	314	110	35.0	30.0 (5)
221	200	168	90	53.6	52.3 (5)
222	120	110	65	59.1	52.3 (3)
223	680	586	176	30.0	34.9 (5)
225	1,000	850	270	31.8	26.8 (5)
227	600	512	208	40.6	38.5 (5)
228	400	351	157	44.7	42.8 (5)
229[e]	280	240	70	29.2	23.9 (5)
235	120	118	48	40.7	39.0 (5)
236	1,000	892	327	36.7	39.0 (5)
239[e]	720	642	278	43.3	44.1 (5)
240[e]	560	494	213	43.1	39.0 (5)
244	280	225	76	33.8	30.2 (5)
248	80	102	51	50.0	47.1 (4)
249	200	172	67	39.0	29.6 (5)
337	440	377	154	40.8	35.4 (5)
338	680	560	221	39.5	33.3 (5)
339	640	540	189	35.0	35.3 (5)
341	1,800	1543	540	35.0	34.3 (5)
342	1,800	1374	392	28.5	26.3 (5)
343	1,320	1159	478	41.2	40.5 (5)
344	1,000	832	244	29.3	25.1 (5)
345	1,400	1014	218	21.5	20.3 (5)
346	2,600	1861	434	23.3	24.1 (5)
347	1,200	1019	294	28.9	26.7 (5)
348	1,400	1190	319	26.8	25.4 (5)
349	3,400	2626	592	22.5	23.7 (5)
412[d]	200	180	80	44.4	NA
416	80	72	29	40.3	40.2 (5)
417[d]	360	324	120	37.0	NA
420	56	46	18	39.1	42.7 (4)
422	40	28	21	75.0	50.5 (5)
424	40	32	13	40.6	46.2 (3)
425	480	431	164	38.1	40.3 (4)
426	40	34	8	23.5	19.9 (5)
427	80	69	21	30.4	35.2 (5)
428	120	109	50	45.9	38.9 (5)
431	40	39	20	51.3	50.8 (5)

Permit Area	Permits Available	Permits Issued[a]	Registered Harvest	% Hunter Success (2007)[b]	% Hunter Success (2-5 Yr Ave)[c]
433	40	37	21	56.8	50.8 (4)
440	600	517	154	29.8	33.4 (5)
442	1,280	1114	352	31.6	34.1 (5)
443	600	531	175	33.0	30.2 (5)
446	40	36	14	38.9	42.0 (3)
447	40	28	11	39.3	33.0 (3)
448	56	53	33	62.3	58.3 (4)
449	56	55	23	41.8	49.3 (4)
450	56	47	17	36.2	32.1 (5)
451	56	51	30	58.8	56.9 (5)
454	40	34	10	29.4	31.4 (3)
456	40	32	3	9.4	7.1 (3)
457	40	36	19	52.8	37.2 (5)
458	56	33	10	30.3	35.9 (3)
459	200	172	36	20.9	26.6 (5)
461	720	619	239	38.6	36.4 (5)
462	800	693	263	38.0	36.8 (5)
463	160	148	61	41.2	36.0 (5)
464	240	211	83	39.3	31.2 (5)
465	280	229	61	26.6	27.5 (5)
466	520	434	93	21.4	34.2 (5)
467	320	272	70	25.7	33.5 (5)
Unknown			9		
Total	33,976	28,320	9,412	33.2	

[a] 3,072 permits were issued to archery hunters and not included in these figures.
[b] Success rate not adjusted for non-participants.
[c] Number in parenthesis equals the number of years data was available.
[d] New permit area or boundary changes.
[e] Permit areas with name changes.

Table 3. Spring wild turkey hunter success by time period in Minnesota, 2007.

Time Period	Permits Issued	Registered Harvest	% Hunter Success (2007)[a]	% Hunter Success (5 Yr Ave)[a]
A) April 18-22	3,863	1,703	44.1	42.2
B) April 23-27	3,713	1,467	39.5	40.4
C) April 28-May 2	3,831	1,191	31.1	31.2
D) May 3-7	3,680	1,094	29.7	27.2
E) May 8-12	3,746	1,227	32.8	33.3
F) May 13-17	3,172	920	29.0	29.7
G) May 18-24	3,324	1,012	30.4	24.4
H) May 25-31	2,831	745	26.3	26.0
Youth Hunt				
U) May 19-20	1	0	0.0	-
V) May 12-13	7	1	14.3	-
W) May 5-6	3	0	0.0	-
X) April 28-29	17	0	0.0	-
Y) April 21-22	124	47	37.9	-
Z) April 14-15	8	5	62.5	-
Total	28,320	9,412	33.2	32.0

[a] Success rate not adjusted for non-participants.

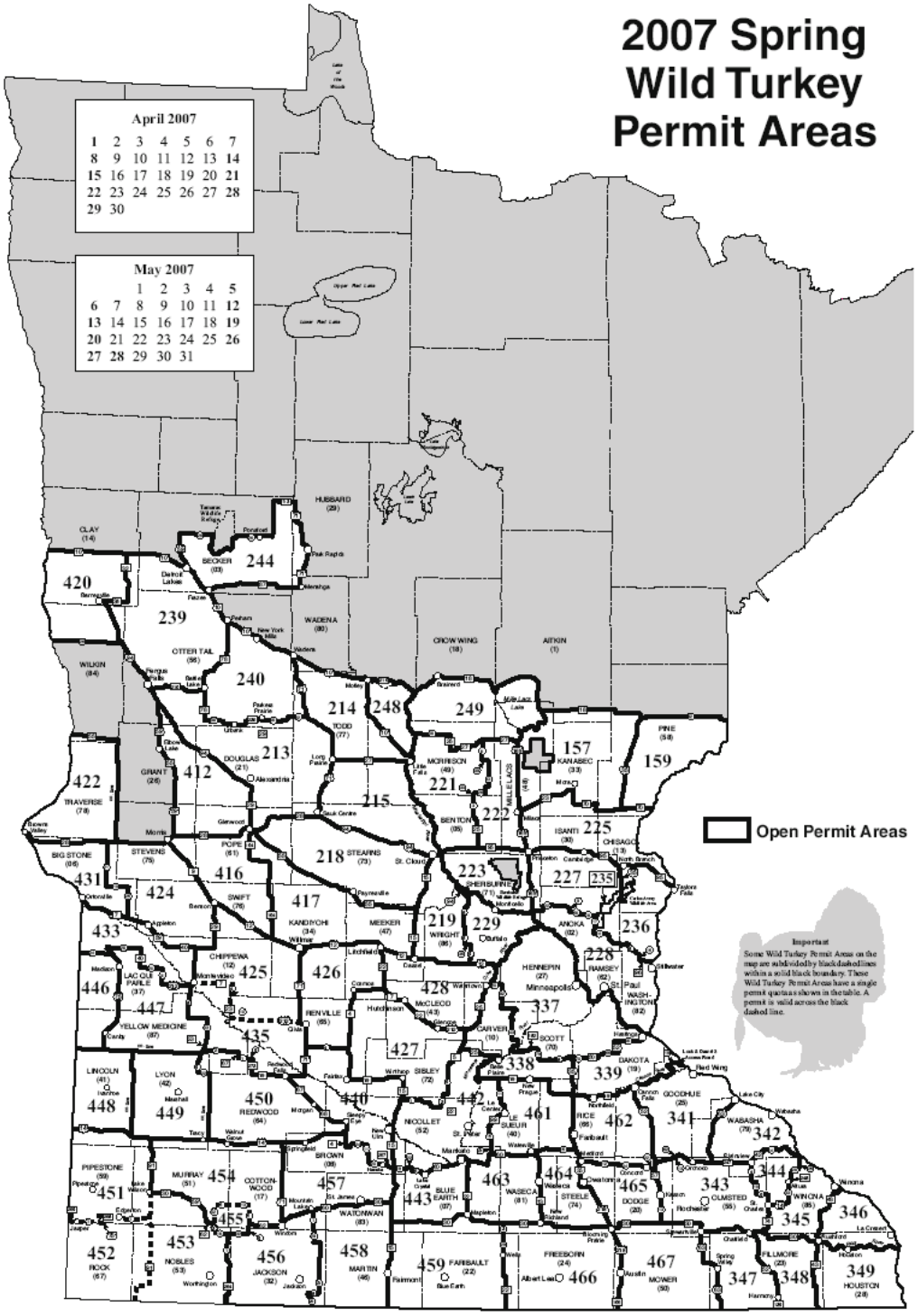


Figure 1. Turkey permit areas open to spring hunting in Minnesota, 2007.

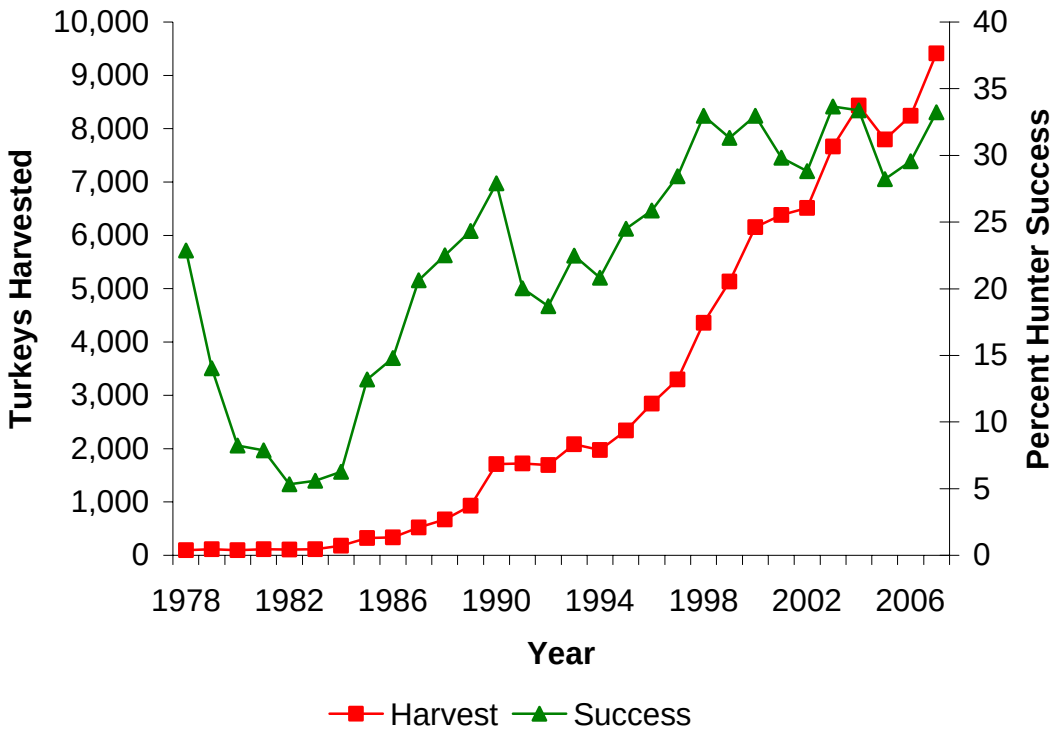


Figure 2. Total harvest and hunter success rates for the spring wild turkey hunting season in Minnesota from 1978 to 2007.

2007 Minnesota Spring Turkey Hunter Survey Report

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INTRODUCTION

Minnesota's spring turkey hunting season uses a permit area quota system. The system is designed to distribute hunters across space (i.e., permit areas [PAs]) and time (i.e., time period), and allows for greater control of harvest and hunter satisfaction. The goal of this system is to provide quality turkey hunting opportunities where populations can sustain harvest (MDNR 2007*a*).

During the 2007 spring season, 33,976 permits were available in 66 PA's across 8 time periods, which varied from 5 to 7 days in length. The season began on April 18, 2007 and ran until May 31, 2007 representing a total of 44 turkey hunting days. Currently, the spring turkey hunting PA's represent 46,040 mi^2 or 55% of Minnesota's total land base (R. Wright, Minnesota Department of Natural Resources, personal communication).

Three types of hunting licenses were available to hunters: (1) general lottery permit in which an applicant or a party of up to 4 hunters applied for a specific PA and time period (they also had the option to apply for a second choice area and time period); (2) landowner permit in which up to 20 percent of permits for each PA and time period were reserved for landowners or tenants who lived on 40 acres or more of land with the PA, and (3) archery permits which could be purchased for the last 2 time periods of any PA with 50 or more permits per period. Only general and landowner license purchasers were included in this survey.

Licenses were made available based on a system of preference which was determined by the number of years applicants submitted a valid but unsuccessful application since last receiving a license. Successful applicants were allowed to harvest 1 bearded turkey during the spring season.

The current Wild Turkey Plan (MDNR 2007*a*) calls for surveying turkey hunters from a portion of PAs open for hunting each year in order to have reasonably current data for modeling permit numbers for future hunts. Permit allocations are adjusted inversely for hunter interference in an attempt to maintain hunt quality and safety (Kimmel 2001, Dingman et al. 2002). In addition, information on hunt quality and access to land for hunting is used to evaluate the quality of spring turkey hunting for each permit area.

METHODS

A turkey hunter survey consisting of 16 questions (Appendix A) was first mailed to a random sample of 2,774 spring turkey hunters on May 23, 2007. A total of 26 PAs were surveyed based on PA boundary changes or length of time since previous survey (Table 1). Hunter samples were drawn from only the first 4 time periods (i.e., April 18 – May 7 2007) because most turkey hunters prefer to hunt during those time periods and it was assumed that higher interference rates and inaccessibility to hunting lands would occur during those time periods. Surveyed hunters were randomly selected from the Electronic Licensing System (ELS) database of Spring 2007 turkey hunt license purchasers. Non-respondents were sent a follow-up mailing on June 20, 2007 with 1,424 surveys mailed. A third and final mailing was sent to 1,245 non-respondents on July 26, 2007. Surveys received after September 14, 2007 were not used in this analysis.

PA 456 was later added to the survey because of concern for low hunter success (i.e., 9.4% success in 2007 and 7.1% 3 year average success) (MDNR 2007*b*). There were a total of 32 permits available for all time periods; therefore, all hunters within the PA and time periods were surveyed. Surveys were mailed to 32 hunters on June 27, 2007. Non-respondents were sent a follow-up mailing on July 11, 2007 with 17 surveys mailed. A third and final mailing was sent to 10 non-respondents on July 26, 2007.

The survey was designed to determine relationship between indices of hunter crowding (i.e., hunter interference, access to land for hunting) and hunt quality for spring turkey hunting seasons in Minnesota.

RESULTS

The overall response rate across all time periods and PAs averaged 80.9% and varied among PAs from 73.7-94.4% (Table1). The majority of respondents (97.8%) reported that they hunted turkeys in 2007 (Table 2). Most spring turkey hunters (87%) possessed a general lottery hunting permit (Table 3) and hunters were evenly distributed across the 4 surveyed time periods (Table 4). All hunters (i.e., general lottery and landowner) spent an average of 2.7 days hunting (Table 5). Hunting by shotgun was far more common (92%) than by archery (4%) or shotgun and archery (4%, Table 6).

Hunters reported observing an average of 12 turkeys while hunting but this varied widely among PAs from 44 turkeys in PA 422 to 3 turkeys in PA 456 (Table 7). Most hunters (94%) reported observing at least 1 turkey while hunting (Table 7). Nearly 60% of respondents reported shooting at a turkey (Table 8), and 51% indicated they were successful in harvesting a turkey (Table 9). Most turkeys were harvested in the morning (74.9%) and nearly all (97.1%) were harvested by shotgun (Table 9).

The majority of hunters (83.6%) described access to land as either “very easy” or “somewhat easy” (Table 10). Most hunters utilized private land (82.4%, Table 11). On average hunters were denied access to private land 0.7 times (Table 11).

Most hunters (99%) reported no feeling of danger while hunting (Table 12). On average, 0.4 hunters outside the respondents hunting party were observed while hunting, and 12.6% of hunters indicated observing ≥ 1 other hunter (Table 13). Only 6% of hunters reported interference from other turkey hunters (range of 0.00 to 0.16, Table 14). 10% of hunters reported interference from non-turkey hunters (range of 0.00 to 0.22; Table 15). On a scale of 1 to 10, overall quality rating from turkey hunters for the spring 2007 hunting season averaged 7.51 (i.e., 0 represents poor quality and 10 represents high quality, range 5.68 in PA 456 to 8.68 in PA 248, Table 16).

DISCUSSION

Since Minnesota’s first modern hunting season in 1978, there have always been more applications for hunting than available permits (MDNR 2004). For the 2007 spring turkey season there were a total of 52,566 applicants for 33,976 available permits (MDNR 2007). The goal of a structured spring turkey hunting season is to regulate hunter numbers in order to provide quality hunting opportunities while maintaining sustainable populations. Results from this survey indicate that hunters are experiencing a high quality hunt (7.51 quality rating), characterized by high success rates (51%), low interference (0.06 interference rate from other hunters and 0.10 from non-hunters), and good access to private land (hunters averaged < 1 time being denied access to private land). The factors most often cited as contributing to a quality hunt include ease of access to hunting lands, feeling of safety, proper distribution of hunters (i.e., lack of interference from other hunters), observing turkeys while hunting, having the opportunity to get a

shot, and success in harvesting a turkey (Smith et al. 1992, Dingman 2003). Success is the most often cited factor influencing a quality hunting experience (Stankey et. al. 1973, Hende 1974, Dingman 2003).

The spring turkey hunter survey results are used in part as a tool to gauge hunter satisfaction and estimate interference rates. Hunter density and number of permits available appear to be acceptable and permit numbers likely can be increased in future hunting seasons (Dingman 2003). One contributing factor to interference is hunter density. Increased hunter density has the potential to lead to safety concerns particularly on public lands. Therefore, interference rates are a factor used in modeling when setting permit numbers. The goal is to maximize the amount of turkey hunting across each permit area while providing a safe quality hunting experience.

Quality factors reported in this survey such as hunters getting a shot at a turkey (62%), success in harvesting a turkey (51%), ease of access to hunting land (83.6% "very easy" or "somewhat easy" access), little or no feeling of danger (99% indicated "no" feeling of danger), low interference rates from turkey hunters (6%) and low interference from non-turkey hunters (10%), and an overall quality rating of 7.51 indicate that most hunters are experiencing a quality spring turkey hunt.

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Table 1. Response rates by permit area for the Minnesota 2007 Spring Turkey Hunter Survey.

Permit area	Hunters surveyed	Surveys returned	Response rate (%)
157	78	60	76.9
159	20	16	80.0
213	170	142	83.5
218	250	196	78.4
221	87	75	86.2
222	57	49	86.0
225	315	245	77.8
227	188	149	79.3
236	315	239	75.9
239	227	193	85.0
240	180	151	83.9
244	120	99	82.5
248	38	28	73.7
249	87	72	82.8
416	36	34	94.4
417	172	142	82.6
420	23	19	82.6
422	18	17	94.4
428	55	46	83.6
446	18	17	94.4
447	13	10	76.9
448	28	24	85.7
451/452/453	28	24	85.7
456	32	27	84.4
458	25	20	80.0
461	226	177	78.3
Total	2806	2271	80.9

Table 2. Participation rates of hunters by permit area for the 2007 Minnesota Spring Turkey Hunter Survey.

Permit area	Respondents	Individuals that hunted	Individuals that did not hunt	Percentage (%) that hunted
157	60	59	1	98.3
159	16	15	1	93.8
213	142	138	4	97.2
218	196	194	2	99.0
221	75	74	1	98.7
222	49	48	1	98.0
225	245	242	3	98.8
227	149	145	4	97.3
236	239	234	5	97.9
239	193	186	7	96.4
240	151	149	2	98.7
244	99	95	4	96.0
248	28	25	3	89.3
249	72	69	3	95.8
416	34	34	0	100.0
417	142	138	4	97.2
420	19	19	0	100.0
422	17	16	1	94.1
428	45	45	0	100.0
446	18	17	1	94.4
447	9	9	0	100.0
448	24	24	0	100.0
451/452/453	24	23	1	95.8
456	27	25	2	92.6
458	20	19	1	95.0
461	177	177	0	100.0
Total	2270	2219	51	97.8

Table 3. Permit type purchased by permit area for the 2007 Minnesota Spring Turkey Hunter Survey.

Permit Area	Respondents	Landowner	General lottery
157	60	6	54
159	16	2	14
213	142	24	118
218	196	30	166
221	75	13	62
222	49	9	40
225	245	34	211
227	149	17	132
236	239	12	227
239	193	26	167
240	151	19	132
244	99	13	86
248	28	5	23
249	72	12	60
416	34	3	31
417	142	15	127
420	19	3	16
422	17	1	16
428	45	5	40
446	18	7	11
447	9	3	6
448	24	8	16
451/452/453	24	1	23
456	27	1	26
458	20	1	19
461	177	22	155
Total	2270	292	1978

Table 4. Time period hunted by permit area for the 2007 Minnesota Spring Turkey Hunter Survey.

Permit area	Respondents	April 18-22	April 23-27	April 28-May 2	May 3-7
157	59	17	12	18	12
159	15	4	3	3	5
213	138	33	37	35	33
218	194	44	52	52	46
221	74	22	22	19	11
222	48	13	11	12	12
225	242	61	68	62	51
227	145	36	37	39	33
236	234	54	65	62	53
239	186	49	46	54	37
240	149	37	40	39	33
244	95	29	25	21	20
248	25	9	5	5	6
249	68	19	23	13	13
416	34	11	6	9	8
417	138	33	37	39	29
420	19	5	5	5	4
422	16	4	4	3	5
428	15	10	15	11	9
446	17	6	5	4	2
447	9	2	3	3	1
448	24	6	5	7	6
451/452/453	23	6	6	5	6
456[a]	25	5	4	3	8
458	19	7	5	4	3
461	177	49	45	40	43
Total	2188	571	586	567	489

[a] All 8 time periods were surveyed due to low sample size (i.e., 32 permits for all time periods)

Table 5. Average number of days hunted by permit area for the 2007 Minnesota Spring Turkey Hunter Survey.

Permit area	Respondents	Hunting effort (days)
157	59	2.8
159	15	1.9
213	138	3.1
218	194	2.8
221	74	2.6
222	48	3.0
225	241	3.0
227	144	2.9
236	231	2.8
239	185	2.7
240	148	2.9
244	95	2.8
248	24	2.7
249	69	2.6
416	34	3.0
417	138	3.2
420	19	2.3
422	16	1.6
428	45	2.8
446	17	2.5
447	9	2.8
448	23	2.9
451/452/453	23	2.7
456	24	2.8
458	19	2.6
461	177	2.9
Total	2209	2.7

Table 6. Hunting method by permit area for the 2007 Minnesota Spring Turkey Hunter Survey.

Permit area	Respondents	Shotgun	Archery	Shotgun and archery
157	59	56	2	1
159	15	14	1	0
213	138	131	3	4
218	194	179	11	4
221	74	67	5	2
222	48	45	3	0
225	242	216	10	16
227	145	131	9	5
236	233	202	13	18
239	186	172	9	5
240	147	135	5	7
244	95	88	3	4
248	25	23	0	2
249	68	66	0	2
416	34	34	0	0
417	137	129	3	5
420	19	14	4	1
422	16	14	1	1
428	45	44	0	1
446	17	15	0	2
447	9	9	0	0
448	24	23	0	1
451/452/453	23	20	1	2
456	25	25	0	0
458	19	19	0	0
461	177	166	6	5
Total	2214	2037	89	88

Table 7. Number of hunters that observed turkeys by permit area for the 2007 Minnesota Spring Turkey Hunter Survey.

Permit area	Respondents	Hunters that observed turkeys	Average turkeys observed per hunter
157	58	55	12
159	14	12	4
213	137	126	11
218	193	180	13
221	74	71	13
222	48	47	10
225	240	224	11
227	141	136	11
236	232	226	16
239	183	178	13
240	143	135	11
244	95	82	9
248	25	24	11
249	69	63	8
416	32	31	12
417	135	129	11
420	18	15	11
422	15	15	44
428	45	43	7
446	16	15	12
447	9	8	8
448	22	22	21
451/452/453	23	21	11
456	24	17	3
458	18	16	7
461	174	165	12
Total	2183	2056	12

Table 8. Average number of hunters that got a shot at a turkey by permit area for the 2007 Minnesota Spring Turkey Hunter Survey.

Permit area	Respondents	Hunters that got a shot	Hunters that got a shot (%)
157	59	36	61.0
159	15	10	66.7
213	138	87	63.0
218	194	124	63.9
221	74	50	67.6
222	48	37	77.1
225	242	111	45.9
227	145	83	57.2
236	233	132	56.7
239	186	128	68.8
240	149	95	63.8
244	94	51	54.3
248	24	20	83.3
249	69	38	55.1
416	33	17	51.5
417	138	62	44.9
420	19	14	73.7
422	16	16	100.0
428	45	31	68.9
446	16	11	68.8
447	9	6	66.7
448	24	21	87.5
451/452/453	23	13	56.5
456	24	4	16.7
458	19	7	36.8
461	177	97	54.8
Total	2213	1301	58.8

Table 9. Hunter success by permit area, time of day, and harvest method for the 2007 Minnesota Spring Turkey Hunter Survey.

Permit area	Respondents	Hunters that harvested a turkey	Percentage (%)			
			Harvest Time		Harvest Method	
			AM	PM	Shotgun	Archery
157	59	31	74.2	25.8	96.8	3.2
159	15	8	75.0	25.0	100.0	0.0
213	138	72	76.4	23.6	97.2	2.8
218	194	108	63.9	36.1	95.4	2.8
221	74	47	78.7	21.3	93.6	6.4
222	48	30	73.3	26.7	93.3	6.7
225	242	93	80.2	19.8	95.7	4.3
227	145	74	73.0	27.0	95.9	4.1
236	233	109	69.2	30.8	97.2	2.8
239	186	113	74.1	25.9	98.2	1.8
240	149	85	67.9	32.1	97.6	2.4
244	94	44	79.5	20.5	97.7	2.3
248	24	18	83.3	16.7	100.0	0.0
249	69	35	74.3	25.7	100.0	0.0
416	33	15	100.0	0.0	100.0	0.0
417	138	56	71.4	28.6	98.2	1.8
420	19	12	75.0	25.0	75.0	25.0
422	16	16	75.0	25.0	93.8	6.3
428	45	30	80.0	20.0	100.0	0.0
446	16	10	50.0	50.0	100.0	0.0
447	9	5	80.0	20.0	100.0	0.0
448	24	18	66.7	33.3	100.0	0.0
451/452/453	23	12	66.7	33.3	100.0	0.0
456	25	4	75.0	25.0	100.0	0.0
458	19	7	100.0	0.0	100.0	0.0
461	177	80	65.4	34.6	100.0	0.0
Total	2214	1132	74.9	25.1	97.1	2.8

Table 10. Accessibility of hunting land by permit area for the 2007 Minnesota Spring Turkey Hunter Survey.

		Percentage (%)			
Permit area	Respondents	Very easy	Somewhat easy	Somewhat difficult	Very difficult
157	58	65.5	22.4	12.1	0.0
159	15	66.7	13.3	20.0	0.0
213	138	55.1	32.6	11.6	0.7
218	194	38.7	40.7	18.6	1.5
221	72	48.6	33.3	16.7	1.4
222	47	46.8	40.4	12.8	0.0
225	240	52.5	31.7	13.8	2.1
227	145	51.0	33.8	15.2	0.0
236	228	41.7	32.5	23.2	2.6
239	185	56.2	28.6	13.5	1.6
240	146	57.5	30.1	11.0	1.4
244	94	38.3	30.9	23.4	7.4
248	25	56.0	44.0	0.0	0.0
249	69	55.1	34.8	8.7	1.4
416	34	52.9	29.4	17.6	0.0
417	139	49.6	40.3	8.6	1.4
420	18	16.7	66.7	16.7	0.0
422	16	50.0	25.0	18.8	6.3
428	45	46.7	35.6	15.6	2.2
446	17	58.8	35.3	5.9	0.0
447	9	44.4	55.6	0.0	0.0
448	24	50.0	37.5	12.5	0.0
451/452/453	23	26.1	56.5	17.4	0.0
456	24	45.8	33.3	12.5	8.3
458	19	21.1	36.8	15.8	26.3
461	176	47.2	31.3	14.8	6.8
Total	2200	47.7	35.9	13.7	2.8

Table 11. Type of land hunted and accessibility of private land by permit area for the 2007 Minnesota Spring Turkey Hunter Survey.

		Percentage (%)			Frequency access to private land denied	
Permit area	Respondents	Public land	Private land	Public and Private	Rate	*n*
157	59	5.1	84.7	10.2	0.34	49
159	15	0	86.7	13.3	0.6	12
213	138	5.1	84.8	10.1	0.31	100
218	192	2.6	89.1	8.3	0.47	151
221	74	5.4	81.1	13.5	0.34	54
222	48	2.1	93.8	4.2	0.51	32
225	241	6.2	86.3	7.5	0.5	179
227	145	5.5	84.8	9.7	0.44	115
236	233	8.2	85	6.9	0.95	182
239	186	1.1	88.7	10.2	0.72	149
240	149	2	89.3	8.7	0.62	119
244	95	10.5	63.2	26.3	0.97	71
248	25	20	64	16	0.15	16
249	69	8.7	76.8	14.5	0.73	53
416	34	0	67.6	32.4	0.53	24
417	138	2.9	88.4	8.7	0.49	114
420	18	5.6	94.4	0	1	14
422	16	6.3	75	18.8	0.64	11
428	45	0	95.6	4.4	0.58	38
446	17	5.9	82.4	11.8	1.2	15
447	9	0	77.8	22.2	0.5	8
448	24	12.5	70.8	16.7	1	19
451/452/453	23	4.3	91.3	4.3	0.31	16
456	24	0	95.8	4.2	1.24	21
458	19	10.5	73.7	15.8	1.87	15
461	176	7.4	71.6	21	1.03	123
Total	2212	5.3	82.4	12.3	0.69	1700

Table 12. Hunters response to their feeling of being put in danger by permit area for the 2007 Minnesota Spring Turkey Hunter Survey.

Permit area	Respondents	Feeling of Danger	
		Yes	No
157	59	0	59
159	15	0	15
213	138	0	138
218	194	0	194
221	74	1	73
222	48	0	48
225	242	2	240
227	145	1	144
236	234	3	231
239	186	0	186
240	147	0	147
244	95	0	95
248	25	1	24
249	69	0	69
416	34	0	34
417	138	1	137
420	18	0	18
422	16	0	16
428	45	0	45
446	17	0	17
447	9	0	9
448	24	0	24
451/452/453	23	0	23
456	25	0	25
458	19	0	19
461	177	5	172
Total	2216	14	2202

Table 13. Average number of people other than members of their hunting party, observed in the field by permit area for the 2007 Minnesota Spring Turkey Hunter Survey.

Permit area	Respondents	Average number of people observed per hunter	Hunters observing ≥1 person (%)
157	59	0.51	5.1
159	15	0.00	0.0
213	138	0.19	14.5
218	194	0.27	14.4
221	74	0.24	4.1
222	48	0.25	8.3
225	240	0.36	20.4
227	145	0.41	11.0
236	232	0.44	11.6
239	184	0.35	17.4
240	148	0.35	20.3
244	95	0.31	20.0
248	25	1.04	12.0
249	69	0.28	17.4
416	34	0.21	5.9
417	138	0.30	8.0
420	19	0.89	36.8
422	16	2.19	25.0
428	45	0.11	0.0
446	17	0.00	0.0
447	9	0.00	0.0
448	24	0.75	33.3
451/452/453	23	0.09	0.0
456	25	0.04	4.0
458	19	0.26	10.5
461	177	0.64	28.2
Total	2212	0.40	12.6

Table 14. Hunter interference rates by other turkey hunters by permit area for the 2007 Minnesota Spring Turkey Hunter Survey.

Permit area	Respondents	No Interference[a]	Interference[b]	Interference rate (IR)
157	59	59	0	0.00
159	15	15	0	0.00
213	138	135	3	0.02
218	193	186	7	0.04
221	74	71	3	0.04
222	48	46	2	0.04
225	241	225	16	0.07
227	144	132	12	0.08
236	233	209	24	0.10
239	186	175	11	0.06
240	149	140	9	0.06
244	95	93	2	0.02
248	25	25	0	0.00
249	69	69	0	0.00
416	33	31	2	0.06
417	138	133	5	0.04
420	19	16	3	0.16
422	16	16	0	0.00
428	45	45	0	0.00
446	17	17	0	0.00
447	9	9	0	0.00
448	24	23	1	0.04
451/452/453	23	22	1	0.04
456	25	25	0	0.00
458	19	18	1	0.05
461	177	155	22	0.12
Total	2214	2084	124	0.06

[a] Hunters experienced no or 0 interference episodes by other turkey hunters
[b] Hunters experienced 1 or more interference episodes by other turkey hunters

Table 15. Hunter interference from non-turkey hunters by permit area for the 2007 Minnesota Spring Turkey Hunter Survey.

Permit area	Respondents	No Interference[a]	Interference[b]	Interference rate (IR)
157	59	54	5	0.08
159	15	15	0	0.00
213	137	126	11	0.08
218	193	169	24	0.12
221	74	67	7	0.09
222	48	43	5	0.10
225	238	218	20	0.08
227	143	125	18	0.13
236	231	195	36	0.16
239	185	163	22	0.12
240	147	136	11	0.07
244	94	83	11	0.12
248	25	22	3	0.12
249	68	59	9	0.13
416	33	28	5	0.15
417	138	129	9	0.07
420	19	16	3	0.16
422	16	16	0	0.00
428	44	41	3	0.07
446	17	17	0	0.00
447	9	7	2	0.22
448	23	20	3	0.13
451/452/453	23	20	3	0.13
456	25	24	1	0.04
458	18	16	2	0.11
461	176	159	17	0.10
Total	2198	1968	230	0.10

[a] Hunters experienced no or 0 interference episodes from non-turkey hunters
[b] Hunters experienced 1 or more interference episodes from non-turkey hunters

Table 16. Rating of hunt quality by permit area for the 2007 Minnesota Spring Turkey Hunter Survey.

Permit Area	Respondents	Average hunt quality[a]
157	59	7.63
159	15	7.40
213	138	7.88
218	194	7.64
221	72	8.22
222	48	8.40
225	242	7.24
227	145	7.74
236	234	7.60
239	184	7.91
240	149	7.79
244	94	7.00
248	25	8.68
249	69	7.67
416	34	7.41
417	138	7.15
420	19	7.95
422	16	8.38
428	45	7.49
446	16	6.56
447	9	7.44
448	24	8.33
451/452/453	23	6.78
456	25	5.68
458	19	6.00
461	177	7.38
Total	2213	7.51

[a] Quality was rated from 0-10 with 0 representing poor quality and 10 representing excellent quality

Table 17. Additional Comments of spring wild turkey hunters for the 2007 Minnesota Spring Turkey Hunter Survey.

Comment	Responses
Enjoyed opportunity to turkey hunt and being in woods	85
Poor weather conditions (rainy, hot, bugs, etc…)	65
Successful in harvesting a turkey	38
Hunted private land and had no problems with interference	34
Want permit numbers increased	30
Problem accessing private land	25
Did not see enough turkeys	16
Positive comment toward DNR turkey management	14
Hunt time periods to short	12
Complaints about landowner permits (i.e., landowners get permit and hunt somewhere else)	10
Interference or harassment from non-hunters (i.e., ATV's, campers, hikers, etc…)	9
Maintain current permit numbers	7
Saw turkeys while hunting	7
More archery hunting opportunity (i.e., archery only season, more archery permits)	7
Change to Wisconsin system	6
Saw too many hens	6
Landowners should be able to buy permit over the counter with no lottery	6

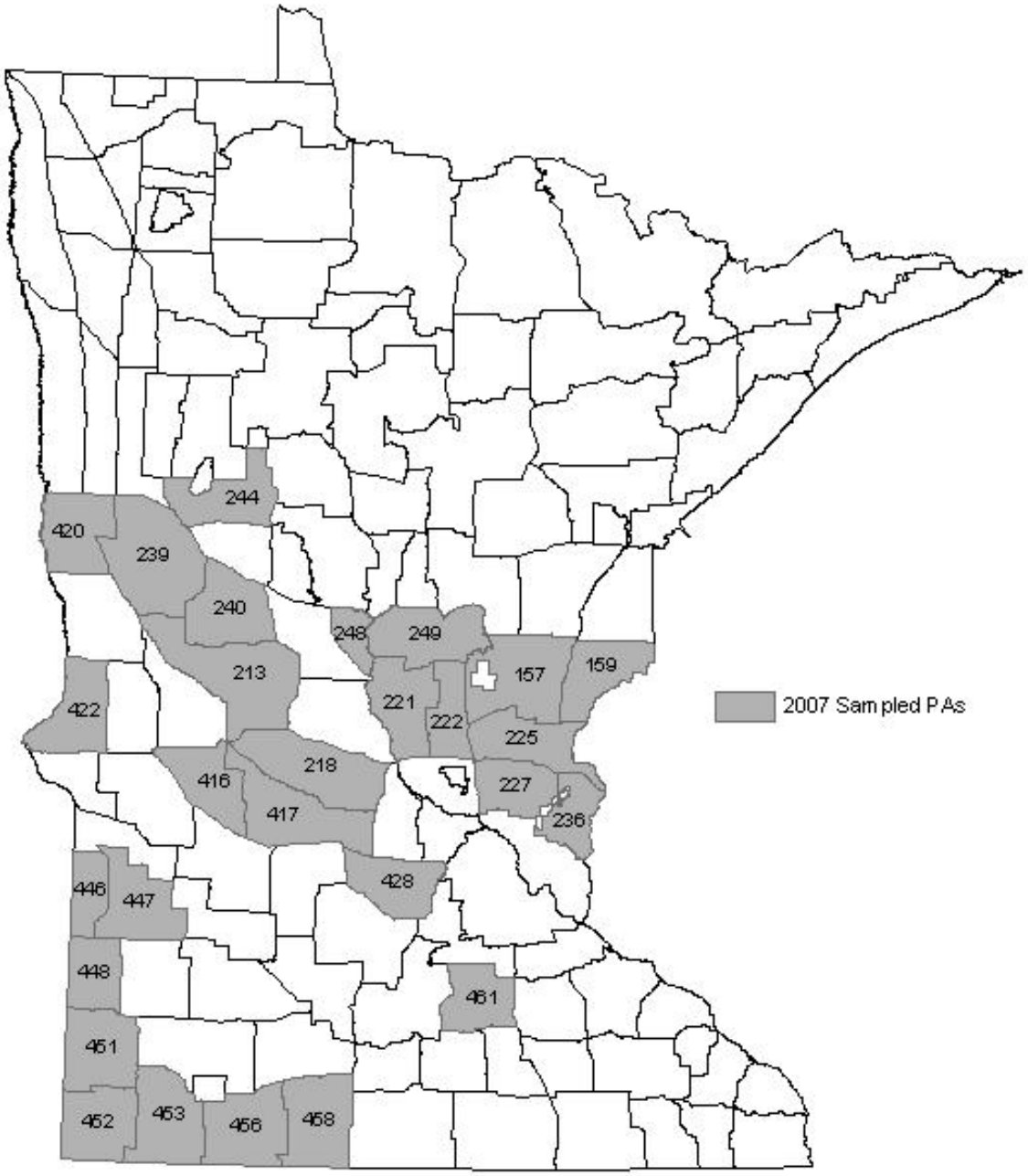


Figure 1. Permit Areas (shaded gray) used for the Minnesota 2007 Spring Turkey Hunter Survey.

Appendix A

Minnesota Spring Turkey Hunter Survey

*Please respond to all questions based on the **SPRING 2007 TURKEY SEASON**.

1. Did you hunt turkeys in Minnesota during the spring 2007 season? Yes____ No*____
   *If no, you do not need to continue but please return survey.

2. Which wild turkey permit area did you hunt in? _____

3. Did you have a landowner permit or a regular lottery permit? Landowner____ Regular Lottery____

4. Which season did you hunt? April 18-22 ___ April 23-27 ___ April 28-May 2___ May 3-7___

5. How many days did you hunt turkeys during spring 2007? _____

6. How did you hunt turkeys in 2007? Shotgun only____ Bow Only____ Shotgun and Bow____

7. How many turkeys did you see while turkey hunting in 2007? _____

8. How many turkeys did you shoot at? _____

9. Were you successful in bagging a turkey? Yes*____ No____
   *If yes, was it killed in the morning or afternoon? AM____ PM____
   *If yes, with what weapon did you harvest your turkey? Shotgun____ Bow____

10. How difficult was it for you to find a place to hunt during the spring 2007 wild turkey hunting season? (check one answer)
    Very easy____ Somewhat easy____ Somewhat difficult____ Very difficult____

11. Did you hunt on public land or private land during the spring 2007 season? Public____ Private*____ Both____
    *If you hunted on private land, how many landowners turned down your request for permission? ____

12. Did you at any time feel you were put in danger by other hunters while turkey hunting? Yes____ No____

13. On average, how many hunters, other than members of your own party, did you see each day while you were actually in the field hunting during spring 2007? _____

14. How many times did hunters, other than members of your own party, interfere with your hunting during spring 2007? _____

15. How many times did people **other than hunters** interfere with your hunting during spring 2007? _____

16. Rate the quality of your turkey hunting experience during spring 2007 on a scale of 1-10 (check one number):

Poor Quality Average Quality Excellent Quality

0____ 1____ 2____ 3____ 4____ 5____ 6____ 7____ 8____ 9____ 10____

Additional comments can be written on the back.

2006 Minnesota Prairie-Chicken Hunter Survey

Michael A. Larson, Forest Wildlife Populations and Research Group

INTRODUCTION

Hunting seasons for prairie-chickens (*Tympanuchus cupido pinnatus*) in Minnesota were closed from 1943 through 2002. During October 2003 a limited-entry, 5-day hunting season for prairie-chickens was held within 7 contiguous permit areas in western Minnesota. Permits were awarded through a lottery system, and each hunter could harvest a maximum of 2 prairie-chickens. The same format was implemented for prairie-chicken hunting seasons during 2004 and 2005. For the 2006 hunting season the number of permit areas was increased to 11 (Figure 1, Table 1). The objectives of the prairie-chicken hunter survey were to document several aspects of hunter satisfaction with their experience and to provide additional information upon which decisions about managing the prairie-chicken hunting season can be made.

METHODS

Results of the 2006 hunting season came from 2 sources. First, the Electronic Licensing System (ELS) recorded all permit applications, lottery results, and the mandatory registration of some prairie-chickens that were harvested. An ELS problem prevented some successful hunters from registering their prairie-chickens. After the hunting season the Department of Natural Resources License Center sent a letter to hunters who had purchased a prairie-chicken permit asking them to report their prairie-chicken harvest. Responses were then added to the ELS. The second source of information was a post-season survey that accompanied the letter from the License Center to all prairie-chicken hunters. The survey, which was identical to the one sent during 2005, however, was not linked with the ELS or other hunter information. Therefore, survey data could not be separated by permit area or landowner status, and follow-up letters could not be sent to people who did not respond to the survey.

RESULTS & DISCUSSION

One hundred eighty-two prairie-chicken hunting permits were available during 2006. One hundred sixty-seven (34%) of 498 regular applicants were awarded permits (Table 2). Although the number of applicants had been declining during 2003–2005 (Table 3), the number of applicants this year was very similar to the number who applied last year. Seventy-eight percent of people who purchased a hunting permit responded to the post-season survey. Three percent (n = 4) of the 120 respondents reported that they did not hunt; injury was the most frequently cited reason.

The amount of time spent hunting, hunting methods, and number of prairie-chickens flushed have been similar during the last 4 years (Figures 2–5). Hunters registered 92 prairie-chickens during 2006 (Table 4). Hunters killed and retrieved approximately 129, 55, and 89 prairie-chickens during 2003–2005, respectively, when 100–110 permits were awarded. Four percent of hunters (n = 116) reported knocking down a prairie-chicken and not being able to retrieve it during 2006. Approximately 40–50% of hunters harvested at least 1 prairie-chicken during 2006; success rates were 46–68% during 2003–2005. Only 18–20% of prairie-chicken hunters during the last 2 seasons reported also flushing sharp-tailed grouse (*T. phasianellus campestris*). Unlike during 2005 when no hunters reported wounding or retrieving a sharp-tailed

grouse while hunting prairie-chickens, however, prairie-chicken hunters in 2006 reported harvesting 23 sharp-tailed grouse.

As during previous years, approximately 25% of survey respondents hunted only on private land, and 30–45% of them hunted either only on public land or on both public and private land. Of the 66 hunters who reported their ease of gaining access to private land, most reported it being easy, but 17% reported it being difficult (Figure 6).

Hunter satisfaction with the 2006 prairie-chicken hunting season was reported as a median of 7 (mean = 6.8) on a 1–10 scale (n = 115, Figure 7), and 90% of responding permit holders (n = 118) reported that they would apply for a prairie-chicken permit again in the future. Twenty-three prairie-chicken hunters (20% of n = 116) reported being interfered with by other hunters a total of 37 times during 2006.

ACKNOWLEDGMENTS

I thank all the hunters who responded to the survey for their cooperation, Bill Penning and Ron Kullman for dealing with ELS issues and mailing the survey, Laura Gilbert for entering the data, and Mark Lenarz for reviewing a draft of the report. Wendy Krueger, Richard Kimmel, John Giudice, and others developed and initially implemented the prairie-chicken hunter survey for the 2003 season.

Table 1. Changes to permit areas for prairie-chicken hunting in Minnesota.

Permit area		
2006	2003–2005	Change
801A		New for 2006
802A		New for 2006
803A		New for 2006
804A		New for 2006
805A	405A	Label only; areas identical
806A	407A	Label only; areas identical
807A	407B	Label only; areas identical
808A	407C	Label only; areas identical
809A	420A	Area enlarged and relabeled
810A	420B	Area enlarged and relabeled
811A	421A	Area enlarged and relabeled

Table 2. Results of the lottery for prairie-chicken hunting permits in Minnesota during 2006.

Permit type	Permit area	Permits avail.	No. of applicants	Lottery winners		Permits purchased	
				no.[a]	prop.[b]	no.	prop.[b]
Regular	801A	8	12	11	0.92	7	0.64
	802A	8	7	7	1.00	4	0.57
	803A	8	11	10	0.91	7	0.70
	804A	12	19	15	0.79	12	0.80
	805A	14	74	17	0.23	17	1.00
	806A	13	41	16	0.39	13	0.81
	807A	20	70	21	0.30	17	0.81
	808A	13	52	14	0.27	12	0.86
	809A	16	46	17	0.37	16	0.94
	810A	20	115	25	0.22	25	1.00
	811A	12	51	14	0.27	11	0.79
	All	144	498	167	0.34	141	0.84
Landowner	801A	2	0	0		0	
	802A	2	1	1	1.00	1	1.00
	803A	2	0	0		0	
	804A	3	0	0		0	
	805A	4	1	1	1.00	1	1.00
	806A	4	1	1	1.00	0	0.00
	807A	5	4	4	1.00	4	1.00
	808A	4	3	3	1.00	3	1.00
	809A	4	3	3	1.00	3	1.00
	810A	5	0	0		0	
	811A	3	1	1	1.00	1	1.00
	All	38	14	14	1.00	13	0.93
Both	All	182	512	181	0.35	154	0.85

[a] More permits were awarded to regular applicants than were initially available because unclaimed landowner permits were offered to regular applicants. In area 801A an extra permit was awarded because the last hunter selected in the lottery had applied as a member of a hunting party.

[b] Proportion of the previous column (i.e., lottery winners/applicants and purchasers/winners).

Table 3. Permits and applicants for hunting prairie-chickens in Minnesota during 2003–2005.

	Regular		Landowner	
Year	Permits	Applicants	Permits	Applicants
2003	82	835	18	18
2004	82	734	18	25
2005	88	487	22	13

Table 4. Hunter harvest of prairie-chickens in Minnesota during 2006.

Source[a]	Permit type[b]	Permit area	No. of hunters[c]	Birds retrieved	Birds per hunter	Success rate[d]
ELS	Both	801A	7	1	0.1	0.14
ELS	Both	802A	5	2	0.4	0.20
ELS	Both	803A[e]	7	5	0.7	0.43
ELS	Both	804A[e]	12	8	0.7	0.42
ELS	Both	805A	18	10	0.6	0.44
ELS	Both	806A	13	9	0.7	0.54
ELS	Both	807A	21	9	0.4	0.29
ELS	Both	808A	15	13	0.9	0.67
ELS	Both	809A	19	14	0.7	0.37
ELS	Both	810A[e]	25	15	0.6	0.40
ELS	Both	811A[e]	12	6	0.5	0.33
ELS	Regular	All	141	86	0.6	0.42
ELS	Landowner	All	13	6	0.5	0.23
ELS	Both	All	154	92	0.6	0.40
Survey	Both	All	116	85	0.7	0.49

[a] ELS = Electronic Licensing System; Survey = questionnaire sent by mail to hunters.
[b] Landowner, non-landowner (i.e., regular applicant), or both combined.
[c] For ELS data it is the number who purchased a permit to hunt prairie-chickens; for Survey data it is the number of hunters who responded to a mail survey and reported to have hunted.
[d] Proportion of hunters who killed and retrieved at least 1 prairie-chicken.
[e] Results for these Permit Areas may not be accurate because 2 hunters with permits for area 803A registered 2 birds in area 804A and 2 birds in area 811A, and a hunter with a permit for area 810A registered a bird in area 811A.

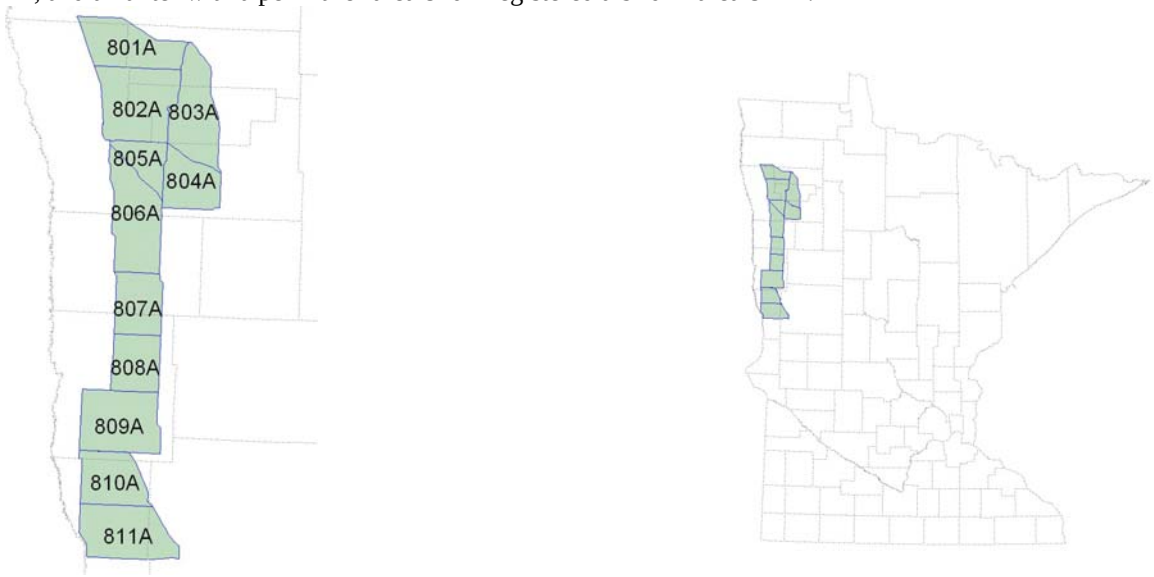


Figure 1. Map of permit areas for prairie-chicken hunting in Minnesota during 2006 (left) and their location relative to counties within the state (right).

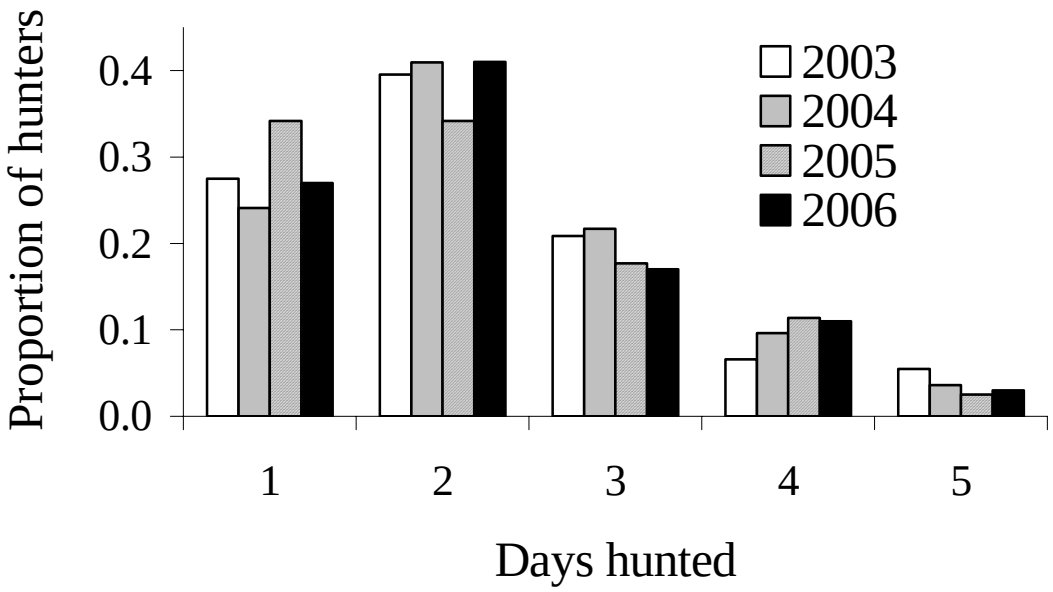


Figure 2. Number of days hunters pursued prairie-chickens in Minnesota (*n* = 91, 83, 79, and 116 survey respondents for 2003–2006, respectively).

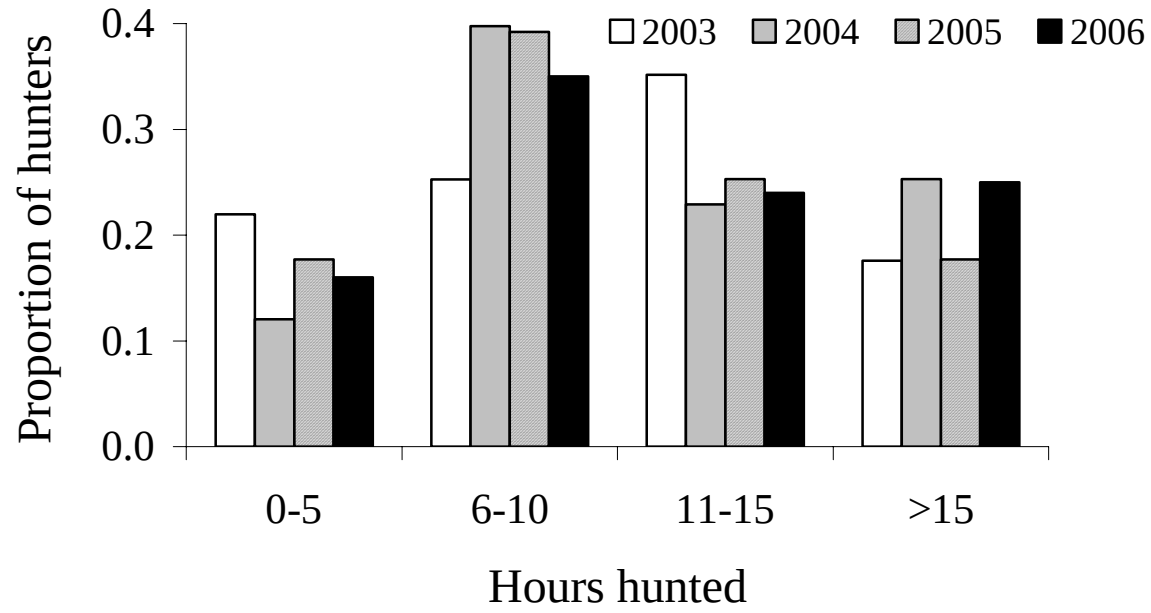


Figure 3. Number of hours hunters pursued prairie-chickens in Minnesota (*n* = 91, 83, 79, and 116 survey respondents for 2003–2006, respectively).

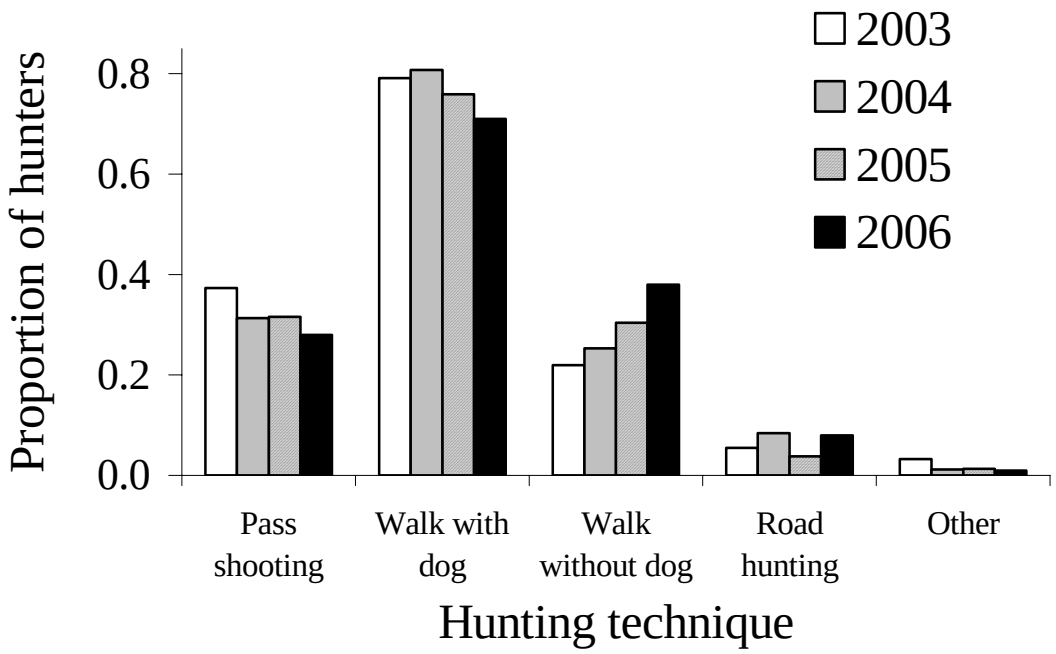


Figure 4. Methods used by prairie-chicken hunters in Minnesota (*n* = 91, 83, 79, and 116 survey respondents for 2003–2006, respectively). The sum of proportions may be >1.

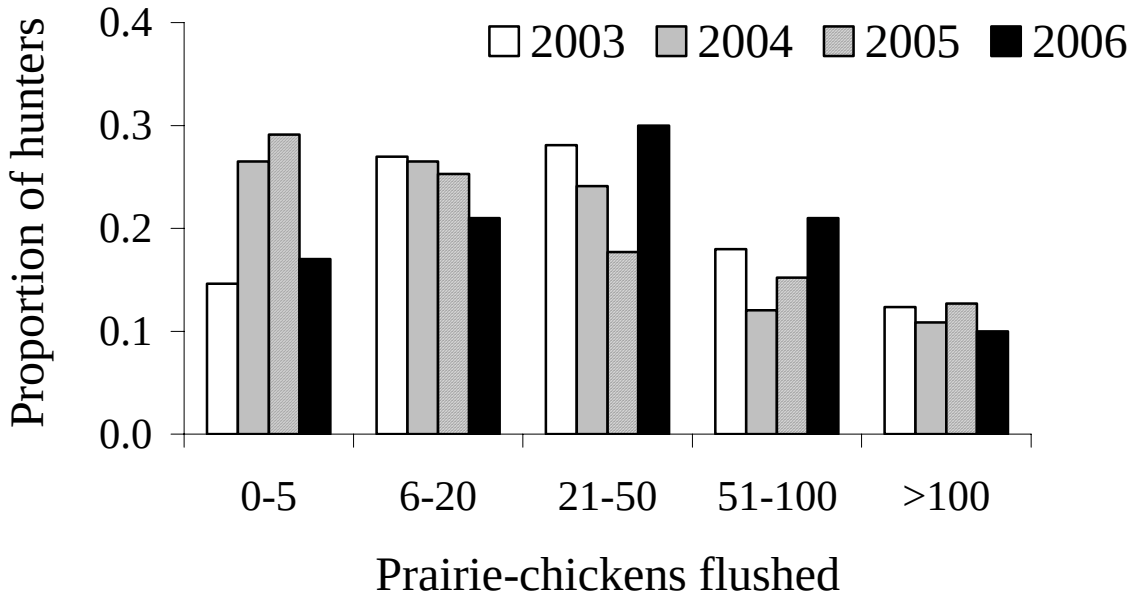


Figure 5. Number of prairie-chickens flushed by prairie-chicken hunters in Minnesota (*n* = 89, 83, 79, and 115 survey respondents for 2003–2006, respectively).

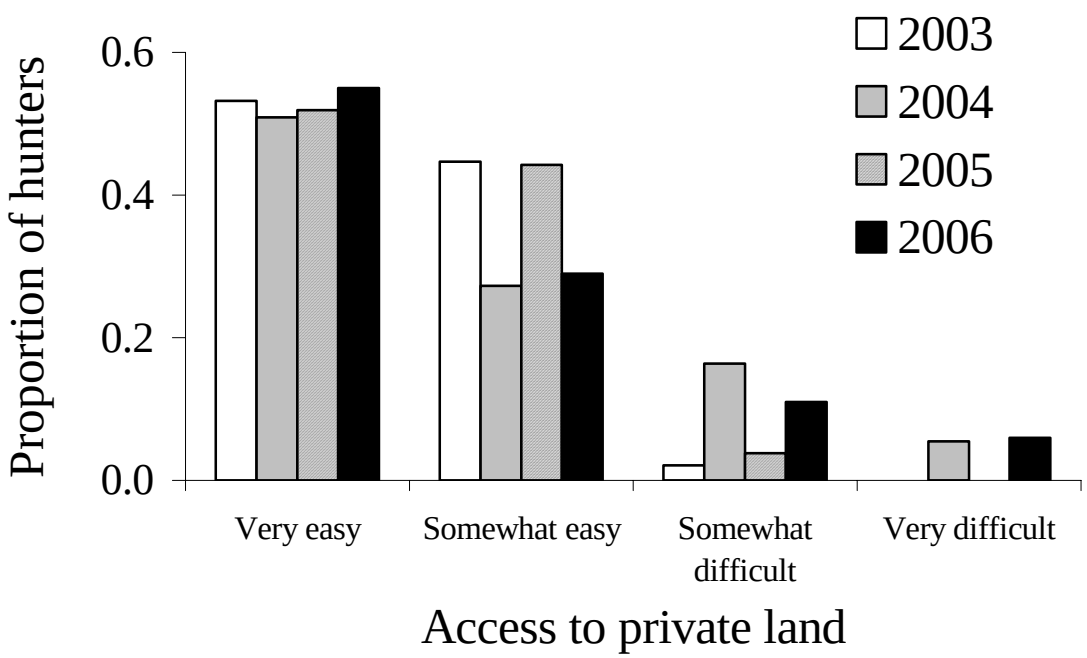


Figure 6. Ease of acquiring permission to access private land for prairie-chicken hunters in Minnesota (*n* = 47, 55, 52, and 66 survey respondents for 2003–2006, respectively).

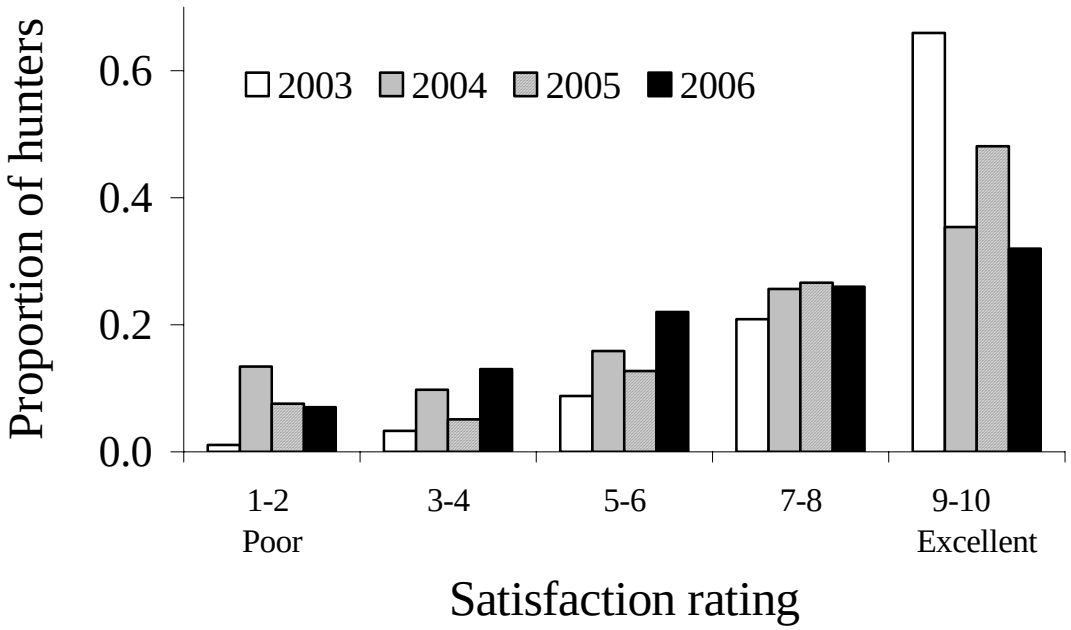


Figure 7. Degree of overall satisfaction of hunters with the prairie-chicken season in Minnesota (*n* = 91, 82, 79, and 115 survey respondents for 2003–2006, respectively).

2006 Minnesota Deer Harvest Report

Lou Cornicelli, Big Game / Season Program Consultant, Division of Fish and Wildlife

INTRODUCTION

The white-tailed deer may be considered Minnesota's most popular wildlife species. Each year 500,000 hunters harvest over 200,000. In 2006, hunters registered 270,778 deer. This harvest marked the second highest harvest recorded in Minnesota.

METHODS

Every deer taken by hunting in Minnesota must be registered within 24 hours of the close of the season under which the deer was taken. Deer may be registered at any of the 825 to nearly 900 "Big Game Registration" stations available throughout the state. Implementation of electronic licensing (ELS) has improved the efficiency and accuracy of deer harvest estimates and provides a more timely release of harvest information. Registered deer are recorded as adult buck, fawn buck, adult doe, or fawn doe. Additional information gathered at time of registration includes date of kill, deer permit area, and season.

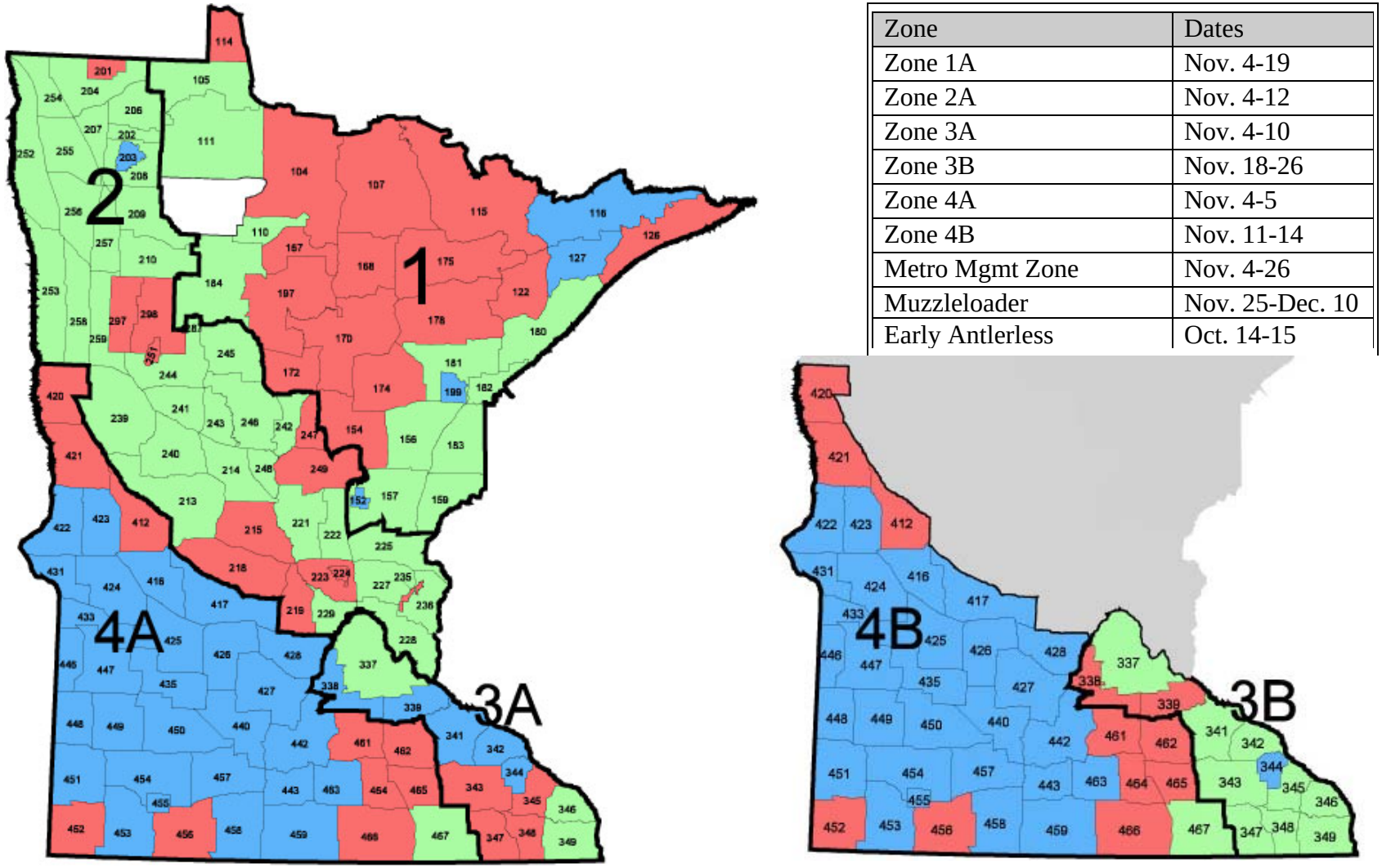
RESULTS

Outcome of the 2006 deer harvest are presented in the following tables.

Table 1. Statewide Firearms, Archery, and Muzzleloader Harvest, License Sales, and Success Rates 1995 - 2006.

REGULAR FIREARMS												
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Resident License Sales	419,965	389,745	369,190	378,320	395,745	400,814	401,005	367,964	344,875	309,698	291,298	299,774
Non-Resident License Sales	9,339	8,535	7,830	8,852	9,970	10,595	10,972	10,835	11,334	12,036	12,523	12,520
Antlerless Permit Sales	22,603	27,148	32,229	20,884	23,785	34,802	59,013	105,699	194,201	183,186	184,566	167,343
Multi-Zone Buck License Sales	29,902	38,806	42,803	44,739	43,903	42,669	41,921	35,658	32,929	32,359	28,233	15,984
Resident Youth License Sales	1,835	2,964	3,844	3,445	2,038	3,215	4,011	2,884	34,463	51,347	50,501	49,599
All Season Deer License Sales						2,384	3,986	22,125	30,998	46,008	59,090	75,511
Total License Sales	483,644	467,198	455,896	456,240	475,441	495,289	519,601	545,165	648,800	634,634	626,211	620,731
Registered Buck Harvest[1]	88,997	71,242	64,867	82,921	92,584	102,961	98,894	101,333	110,440	116,612	95,594	95,695
Antlerless Permits Offered	201,525	154,195	150,195	140,280	177,380	232,595	286,540	365,667	31,625	30,760	28,830	28,830
Antlerless Permits Issued	162,761	116,650	105,481	108,016	135,852	180,490	196,603	192,907	25,386	24,111	25,656	25,656
Antlerless Permits App.	257,653	174,329	142,260	151,148	214,597	237,571	225,341	202,086	30,253	28,454	31,403	31,403
Registered AL Harvest[1]	109,196	68,106	62,038	60,475	71,681	88,492	98,169	102,280	147,420	123,278	119,363	135,981
Registered Total Harvest[1]	198,193	139,348	126,905	143,396	164,265	191,453	197,063	203,613	257,860	239,890	214,957	231,676
Registered % Successful[2]	40.1	29.8	27.8	31.4	34.8	38.6	37.9	37.3	39.7	37.8	34.3	37.3
ARCHERY												
Resident License Sales	70,056	67,058	63,499	63,826	66,226	68,947	69,608	57,532	59,339	50,601	50,293	49,595
Non-Resident License Sales	1,171	1,098	980	1,029	1,073	1,271	1,288	1,275	1,428	1,144	1,207	1,286
Youth Archery Sales									3748	7261	7,489	7,688
Mgmt Permit License Sales	15,387	15,632	17,478	15,846	16,945	20,393	22,141	18,126	N/A	N/A	N/A	N/A
Total License Sales	86,614	83,788	81,957	80,701	84,244	90,611	93,037	76,933	60,767	51,745	58,989	58,569
Registered Harvest	14,521	14,338	13,258	12,306	13,376	15,776	15,884	14,744	21,720	17,237	18,975	17,076
Registered Harvest - AS license										3,489	4,563	8,284
Total Archery Harvest	14,521	14,338	13,258	12,306	13,376	15,776	15,884	14,744	21,691	20,726	23,538	25,360
Registered % Successful [2]	16.8	17.1	16.2	15.2	15.8	17.4	17.1	19.2	31.8	29.2	24.6	24.8
MUZZLELOADER												
Total Muzzleloader License Sales						11,972	13,043	11,764	9,142	10,512	9,226	10,781
Estimated All-Season Hunters									12,020	14,168	23,293	23,293
Total Muzzleloader Harvest	2,452	3,367	3,164	3,152	2,928	4,548	4,494	3,505	9,466	9,289	15,421	13,507
Registered % Successful [2]						38	34.5	29.8	44.7	37.6	47.4	39.6
Total Registered Harvest	215,166	157,317	143,327	158,854	180,569	211,777	217,452	222,050	290,525	260,604	255,736	270,778

[1] Does not include free landowner licenses [2] Based on total license sales - does not include all-season deer



Zone	Dates
Zone 1A	Nov. 4-19
Zone 2A	Nov. 4-12
Zone 3A	Nov. 4-10
Zone 3B	Nov. 18-26
Zone 4A	Nov. 4-5
Zone 4B	Nov. 11-14
Metro Mgmt Zone	Nov. 4-26
Muzzleloader	Nov. 25-Dec. 10
Early Antlerless	Oct. 14-15

Figure 1. 2006 Firearms and Archery Deer Seasons and Permit Areas.

2006 Minnesota Archery Deer Season. **Northeast Border Zone** (Permit Areas 116 and 127): September 16-November 19. **Remainder of State:** September 16-December 31. Archery hunters can hunt statewide except in areas designated closed and Itasca State Park (P.A. 287). Archery hunters can fill both their archery license and their firearm license; however, only one buck can be taken per year.

Table 2. Deer Harvest by License Type and Zone, 2006.

Firearms/Zone	Hunters	Harvest			Overall Success
		Bucks	Antlerless	Total	
1	171,273	39,414	52,153	91,567	43.4%
2	153,796	34,868	55,911	90,779	45.5%
3A	20,405	5,492	3,521	9,013	38.2%
3B	19,803	3,007	7,702	10,709	42.2%
4A	42,950	7,726	6,952	14,678	32.3%
4B	20,406	4,890	6,177	11,067	49.9%
Multi-Zone Buck	15,984	3,773	0	3,773	23.4%
Free Landowner[1]	4,297	0	1,444	1,444	33.6%
All-Season Deer[1]	75,511	16,715	41,546	58,261	52.8%
Muzzleloader	34,074	2,923	10,584	13,507	33.1%
Archery[2]	75,569	7,096	18,264	25,360	26.1%
TOTAL[3, 4]	**479,135**	**105,769**	**165,009**	**270,778**	42.8%

[1] Includes deer taken during regular firearms, muzzleloader, and archery seasons

[2] Includes Camp Ripley and all-season harvest. Total number of people who bought only an archery license was 23,737.

[3] Due to the fact that a hunter can buy multiple licenses, hunter numbers are an estimate.

[4] Column totals do not add to 270,778 because all-season firearm harvest was placed in appropriate zone.

Table 3. Firearms Harvest and Harvest per Square Mile by Permit Area, 2006. Includes all firearms licenses.

Permit Area	Zone	Season	Adult Male	Fawn Male	Adult Female	Fawn Female	Total	Area Size (sq.mi.)	Bucks/ Sq. Mile	Antlerless/ Sq. Mile	Total/ Sq. Mile
104	1	1A	1,134	203	955	183	2,475	2,078	0.55	0.55	1.19
105	1	1A	1,065	325	1,201	293	2,884	766	1.39	1.95	3.77
105	1	Youth	0	7	40	8	55	766	0.00	0.06	0.07
107	1	1A	1,672	342	1,369	246	3,629	1,895	0.88	0.85	1.92
110	1	1A	634	231	733	195	1,793	300	2.11	3.09	5.98
111	1	1A	1,102	253	1,019	231	2,605	1,708	0.65	0.73	1.53
111	1	Youth	1	5	30	1	37	1,708	0.00	0.02	0.02
114	1	1A	84	21	38	6	149	123	0.68	0.36	1.21
114	1	Youth	0	0	1	0	1	123	0.00	0.01	0.01
115	1	1A	2,161	347	1,398	283	4,189	1,872	1.15	0.90	2.24
116	1	1A	184	10	59	7	260	1,158	0.16	0.06	0.22
122	1	1A	552	95	317	52	1,016	620	0.89	0.60	1.64
126	1	1A	595	35	273	32	935	940	0.63	0.32	0.99
127	1	1A	141	3	29	3	176	562	0.25	0.06	0.31
152	1	1A	150	26	98	23	297	61	2.46	1.98	4.87
154	1	1A	1,579	530	1,625	473	4,207	760	2.08	2.76	5.54
156	1	1A	1,802	553	1,629	391	4,375	825	2.18	2.45	5.30
157	1	1A	2,753	1,005	2,696	798	7,252	889	3.10	3.93	8.16
159	1	1A	1,390	385	1,197	291	3,263	568	2.45	2.62	5.74
167	1	1A	678	167	641	179	1,665	432	1.57	1.90	3.85
168	1	1A	1,377	354	1,327	296	3,354	723	1.90	2.24	4.64
170	1	1A	2,780	758	2,328	550	6,416	1,315	2.11	2.19	4.88
172	1	1A	1,719	688	1,998	538	4,943	451	3.81	5.62	10.96
174	1	1A	1,263	362	1,055	271	2,951	835	1.51	1.59	3.53
175	1	1A	2,119	413	1,485	309	4,326	1,276	1.66	1.41	3.39
178	1	1A	2,405	543	1,794	367	5,109	1,267	1.90	1.71	4.03
180	1	1A	1,678	232	1,049	140	3,099	982	1.71	1.21	3.16
181	1	1A	1,954	447	1,390	343	4,134	708	2.76	2.45	5.84
182	1	1A	357	63	210	30	660	269	1.33	0.89	2.45
183	1	1A	1,571	445	1,364	339	3,719	662	2.37	2.57	5.62
184	1	1A	3,344	1,238	3,491	1,118	9,191	1,231	2.72	3.74	7.47
197	1	1A	1,056	219	878	189	2,342	974	1.08	1.10	2.40
199	1	1A	116	5	29	3	153	148	0.78	0.22	1.03
201	2	2A	82	21	69	20	192	161	0.51	0.55	1.19
201	2	Youth	0	2	1	1	4	161	0.00	0.01	0.02
202	2	2A	171	67	198	47	483	157	1.09	1.56	3.08
202	2	Youth	0	1	7	3	11	157	0.00	0.06	0.07
203	2	2A	70	6	24	8	108	117	0.60	0.27	0.92
204	2	2A	476	158	478	109	1,221	718	0.66	0.82	1.70
204	2	Youth	0	2	9	3	14	718	0.00	0.02	0.02
206	2	2A	452	146	509	119	1,226	471	0.96	1.33	2.60
206	2	Youth	0	6	24	8	38	471	0.00	0.07	0.08
207	2	2A	319	113	352	84	868	300	1.06	1.45	2.89
207	2	Youth	0	3	8	0	11	300	0.00	0.03	0.04
208	2	2A	242	80	267	70	659	443	0.55	0.76	1.49
208	2	Youth	0	2	7	2	11	443	0.00	0.02	0.02
209	2	2A	560	160	471	163	1,354	639	0.88	0.99	2.12
209	2	EA	0	65	171	61	297	639	0.00	0.36	0.46
209	2	Youth	0	1	2	0	3	639	0.00	0.00	0.00

Table 3. (Continued).

Permit Area	Zone	Season	Adult Male	Fawn Male	Adult Female	Fawn Female	Total	Area Size (sq.mi.)	Bucks/ Sq. Mile	Antlerless/ Sq. Mile	Total/ Sq. Mile
210	2	2A	1,090	299	813	242	2,444	616	1.77	1.71	3.97
210	2	EA	0	93	278	116	487	616	0.00	0.64	0.79
213	2	2A	1,791	716	1,716	549	4,772	1,058	1.69	2.14	4.51
214	2	2A	1,402	685	1,600	550	4,237	557	2.52	3.86	7.61
215	2	2A	932	406	965	331	2,634	701	1.33	1.85	3.76
218	2	2A	685	288	730	240	1,943	885	0.77	1.10	2.20
219	2	2A	507	182	393	121	1,203	393	1.29	1.31	3.06
221	2	2A	1,009	424	980	386	2,799	642	1.57	2.13	4.36
222	2	2A	1,006	360	807	272	2,445	413	2.44	2.61	5.92
223	2	2A	461	146	360	106	1,073	376	1.23	1.24	2.85
224	2	2A	129	27	134	35	325	48	2.69	3.52	6.77
225	2	2A	1,462	421	1,127	330	3,340	619	2.36	2.35	5.40
225	2	EA	0	121	263	101	485	619	0.00	0.59	0.78
227	2	2A	865	232	578	175	1,850	472	1.83	1.60	3.92
227	2	EA	0	80	137	62	279	472	0.00	0.42	0.59
228	2	2A	213	39	128	27	407	613	0.35	0.25	0.66
228	2	Metro	65	18	65	10	158	613	0.11	0.12	0.26
229	2	2A	208	76	200	46	530	288	0.72	0.85	1.84
235	2	2A	71	23	50	21	165	33	2.15	2.15	5.00
236	2	2A	673	149	455	116	1,393	373	1.80	1.53	3.73
236	2	EA	0	48	98	33	179	373	0.00	0.35	0.48
239	2	2A	1,717	605	1,660	524	4,506	926	1.85	2.36	4.87
240	2	2A	1,815	653	1,789	652	4,909	642	2.83	3.80	7.65
241	2	2A	1,436	554	1,373	498	3,861	417	3.44	4.49	9.26
242	2	2A	600	235	599	179	1,613	215	2.79	3.62	7.50
243	2	2A	1,078	505	1,146	313	3,042	314	3.43	4.65	9.69
244	2	2A	2,041	803	1,929	771	5,544	586	3.48	4.61	9.46
245	2	2A	2,080	769	1,956	610	5,415	583	3.57	4.40	9.29
246	2	2A	2,070	859	2,146	766	5,841	772	2.68	3.77	7.57
247	2	2A	744	261	768	238	2,011	230	3.23	4.37	8.74
248	2	2A	397	143	372	129	1,041	212	1.87	2.36	4.91
249	2	2A	1,175	510	1,235	368	3,288	501	2.35	3.20	6.56
251	2	2A	143	36	76	28	283	55	2.60	1.89	5.15
252	2	2A	305	62	210	33	610	1,040	0.29	0.23	0.59
252	2	EA	0	11	111	21	143	1,040	0.00	0.13	0.14
252	2	Youth	0	1	5	0	6	1,040	0.00	0.00	0.01
253	2	2A	353	105	423	107	988	1,023	0.35	0.52	0.97
254	2	2A	320	107	349	116	892	396	0.81	1.17	2.25
254	2	Youth	0	5	4	1	10	396	0.00	0.01	0.03
255	2	2A	586	195	622	161	1,564	631	0.93	1.24	2.48
255	2	Youth	1	4	18	2	25	631	0.00	0.03	0.04
256	2	2A	560	170	637	137	1,504	654	0.86	1.18	2.30
256	2	EA	0	32	155	72	259	654	0.00	0.35	0.40
256	2	Youth	0	1	2	0	3	654	0.00	0.00	0.00
257	2	2A	459	126	383	122	1,090	412	1.11	1.23	2.65
257	2	EA	0	37	111	40	188	412	0.00	0.37	0.46
258	2	2A	555	207	622	170	1,554	618	0.90	1.28	2.51
259	2	2A	428	143	411	131	1,113	494	0.87	1.10	2.25
287	2	2A	103	41	133	27	304	46	2.24	3.48	6.61

Table 3. (Continued).

Permit Area	Zone	Season	Adult Male	Fawn Male	Adult Female	Fawn Female	Total	Area Size (sq.mi.)	Bucks/ Sq. Mile	Antlerless/ Sq. Mile	Total/ Sq. Mile
297	2	2A	249	62	151	45	507	439	0.57	0.45	1.15
298	2	2A	777	188	497	166	1,628	619	1.26	1.07	2.63
337	3	3A	221	41	131	38	431	1,024	0.22	0.17	0.42
337	3	3B	92	21	82	23	218	1,024	0.09	0.10	0.21
337	3	Metro	25	10	46	6	87	1,024	0.02	0.05	0.08
338	3	3A	147	12	58	11	228	452	0.33	0.15	0.50
338	3	3B	102	38	111	20	271	452	0.23	0.29	0.60
339	3	3A	155	12	37	3	207	394	0.39	0.10	0.53
339	3	3B	67	37	93	35	232	394	0.17	0.32	0.59
341	3	3A	510	45	117	23	695	611	0.83	0.23	1.14
341	3	3B	370	209	487	153	1,219	611	0.61	1.05	2.00
342	3	3A	415	45	86	24	570	350	1.19	0.31	1.63
342	3	3B	297	149	475	139	1,060	350	0.85	1.75	3.03
343	3	3A	505	73	252	46	876	663	0.76	0.45	1.32
343	3	3B	297	194	479	129	1,099	663	0.45	0.92	1.66
344	3	3A	343	26	108	18	495	190	1.81	0.66	2.61
344	3	3B	126	69	198	46	439	190	0.66	1.28	2.31
345	3	3A	388	57	143	35	623	326	1.19	0.55	1.91
345	3	3B	208	113	370	117	808	326	0.64	1.49	2.48
346	3	3A	711	112	326	74	1,223	319	2.23	1.25	3.83
346	3	3B	353	204	607	154	1,318	319	1.11	2.39	4.13
347	3	3A	471	60	241	38	810	434	1.09	0.64	1.87
347	3	3B	281	148	429	99	957	434	0.65	1.22	2.21
348	3	3A	597	78	332	54	1,061	331	1.80	1.17	3.21
348	3	3B	298	146	539	119	1,102	331	0.90	1.99	3.33
349	3	3A	1027	131	514	120	1,792	492	2.09	1.29	3.64
349	3	3B	517	274	954	243	1,988	492	1.05	2.43	4.04
412	4	4A	290	65	239	68	662	575	0.50	0.53	1.15
412	4	4B	157	53	178	48	436	575	0.27	0.39	0.76
416	4	4A	316	45	164	22	547	543	0.58	0.34	1.01
416	4	4B	189	24	87	17	317	543	0.35	0.19	0.58
417	4	4A	616	97	324	64	1,101	814	0.76	0.48	1.35
417	4	4B	321	71	237	54	683	814	0.39	0.36	0.84
420	4	4A	164	58	165	55	442	651	0.25	0.34	0.68
420	4	4B	118	50	142	40	350	651	0.18	0.28	0.54
421	4	4A	138	27	120	32	317	749	0.18	0.20	0.42
421	4	4B	51	15	43	16	125	749	0.07	0.08	0.17
422	4	4A	124	13	43	12	192	634	0.20	0.09	0.30
422	4	4B	72	4	32	0	108	634	0.11	0.05	0.17
423	4	4A	81	12	56	13	162	531	0.15	0.13	0.31
423	4	4B	51	4	18	7	80	531	0.10	0.05	0.15
424	4	4A	160	16	59	11	246	766	0.21	0.09	0.32
424	4	4B	102	19	59	11	191	766	0.13	0.09	0.25
425	4	4A	88	11	35	9	143	779	0.11	0.06	0.18
425	4	4B	55	12	29	9	105	779	0.07	0.05	0.13
426	4	4A	132	11	70	13	226	614	0.21	0.14	0.37
426	4	4B	87	21	51	8	167	614	0.14	0.10	0.27
427	4	4A	151	5	38	6	200	837	0.18	0.05	0.24
427	4	4B	80	9	46	6	141	837	0.10	0.06	0.17

Table 3. (Continued).

Permit Area	Zone	Season	Adult Male	Fawn Male	Adult Female	Fawn Female	Total	Area Size (sq.mi.)	Bucks/ Sq. Mile	Antlerless/ Sq. Mile	Total/ Sq. Mile
428	4	4A	150	31	100	20	301	549	0.27	0.22	0.55
428	4	4B	123	11	95	27	256	549	0.22	0.22	0.47
431	4	4A	104	6	42	5	157	359	0.29	0.13	0.44
431	4	4B	66	9	27	8	110	359	0.18	0.10	0.31
433	4	4A	219	34	124	33	410	402	0.54	0.39	1.02
433	4	4B	156	30	143	35	364	402	0.39	0.44	0.91
435	4	4A	263	20	113	14	410	576	0.46	0.22	0.71
435	4	4B	142	19	113	24	298	576	0.25	0.24	0.52
440	4	4A	292	38	182	43	555	662	0.44	0.34	0.84
440	4	4B	87	18	97	16	218	662	0.13	0.17	0.33
442	4	4A	357	52	163	41	613	807	0.44	0.25	0.76
442	4	4B	195	33	136	26	390	807	0.24	0.20	0.48
443	4	4A	171	36	102	15	324	386	0.44	0.30	0.84
443	4	4B	90	23	92	20	225	386	0.23	0.29	0.58
446	4	4A	135	11	59	12	217	344	0.39	0.21	0.63
446	4	4B	89	15	78	15	197	344	0.26	0.27	0.57
447	4	4A	137	23	79	17	256	674	0.20	0.14	0.38
447	4	4B	64	13	37	7	121	674	0.09	0.07	0.18
448	4	4A	179	32	148	19	378	448	0.40	0.37	0.84
448	4	4B	115	12	60	14	201	448	0.26	0.17	0.45
449	4	4A	293	24	225	20	562	626	0.47	0.39	0.90
449	4	4B	135	29	85	12	261	626	0.22	0.15	0.42
450	4	4A	125	9	54	5	193	816	0.15	0.07	0.24
450	4	4B	58	5	27	2	92	816	0.07	0.04	0.11
451	4	4A	169	23	99	17	308	686	0.25	0.17	0.45
451	4	4B	179	20	85	17	301	686	0.26	0.15	0.44
452	4	4A	127	16	93	11	247	637	0.20	0.16	0.39
452	4	4B	130	25	126	17	298	637	0.20	0.22	0.47
453	4	4A	173	18	105	9	305	729	0.24	0.16	0.42
453	4	4B	108	14	60	7	189	729	0.15	0.09	0.26
454	4	4A	257	41	177	28	503	840	0.31	0.24	0.60
454	4	4B	205	27	148	15	395	840	0.24	0.19	0.47
455	4	4A	23	6	19	6	54	96	0.24	0.26	0.56
455	4	4B	21	3	14	2	40	96	0.22	0.17	0.42
456	4	4A	220	46	179	41	486	712	0.31	0.31	0.68
456	4	4B	195	48	192	34	469	712	0.27	0.32	0.66
457	4	4A	183	16	104	24	327	667	0.27	0.19	0.49
457	4	4B	101	21	86	9	217	667	0.15	0.14	0.33
458	4	4A	166	29	72	17	284	715	0.23	0.12	0.40
458	4	4B	128	15	99	16	258	715	0.18	0.16	0.36
459	4	4A	284	31	99	27	441	975	0.29	0.13	0.45
459	4	4B	136	21	114	22	293	975	0.14	0.14	0.30
461	4	4A	250	71	200	51	572	480	0.52	0.52	1.19
461	4	4B	146	57	245	60	508	480	0.30	0.64	1.06
462	4	4A	302	83	223	44	652	506	0.60	0.53	1.29
462	4	4B	194	87	275	53	609	506	0.38	0.65	1.20
463	4	4A	151	22	102	19	294	452	0.33	0.27	0.65
463	4	4B	81	29	65	14	189	452	0.18	0.17	0.42
464	4	4A	135	33	110	10	288	377	0.36	0.32	0.76

Table 3. (Continued).

Permit Area	Zone	Season	Adult Male	Fawn Male	Adult Female	Fawn Female	Total	Area Size (sq.mi.)	Bucks/ Sq. Mile	Antlerless/ Sq. Mile	Total/ Sq. Mile
464	4	4B	109	43	131	32	315	377	0.29	0.43	0.84
465	4	4A	102	24	74	16	216	389	0.26	0.23	0.56
465	4	4B	108	42	119	22	291	389	0.28	0.36	0.75
466	4	4A	273	59	194	35	561	930	0.29	0.25	0.60
466	4	4B	203	52	262	55	572	930	0.22	0.34	0.62
467	4	4A	226	58	213	29	526	774	0.29	0.31	0.68
467	4	4B	243	79	307	58	687	774	0.31	0.47	0.89
901			3	3	4	2	12				
902			62	49	116	47	274				
903			7	2	11	4	24				
904			2	1	5	0	8				
905			0	0	3	0	3				
906			7	2	7	2	18				
907			0	3	1	1	5				
908			0	4	8	3	15				
909			0	5	4	2	11				
910			0	3	5	5	13				
911			18	30	47	21	116				
912			1	0	0	0	1				
913			7	3	9	3	22				
914			0	0	5	1	6				
915			0	1	6	2	9				
916			31	22	42	27	122				
917			0	1	1	1	3				
918			1	0	4	2	7				
919			8	2	5	2	17				
920			0	2	4	3	9				
921			11	25	36	21	93				
922			9	9	22	9	49				
923			19	11	30	16	76				
924			0	3	8	0	11				
925			0	3	2	1	6				
926			11	1	22	8	42				
927			6	3	9	5	23				
928			0	4	16	4	24				
929			0	1	11	2	14				
930			4	9	25	1	39				
TOTAL			**95,695**	**28,246**	**84,803**	**22,932**	**231,676**				

Table 4a. Firearm Bonus Permit Harvest by Permit Area, 2006. Managed Permit Areas

Permit Area	A or B Season	Zone	Fawn Male	Adult Female	Fawn Female	Total
104		1	83	386	76	545
107		1	160	595	99	854
114		1	7	27	5	39
115		1	132	594	119	845
122		1	32	114	23	169
126		1	16	131	7	154
154		1	196	635	199	1,030
167		1	40	188	63	291
168		1	126	458	98	682
170		1	317	964	235	1,516
172		1	262	784	223	1,269
174		1	154	410	128	692
175		1	175	604	146	925
178		1	224	735	151	1,110
197		1	82	323	79	484
201		2	11	26	11	48
215		2	90	229	72	391
218		2	58	139	51	248
219		2	42	76	30	148
223		2	50	115	39	204
224		2	11	58	14	83
235		2	10	29	10	49
247		2	98	282	109	489
249		2	200	429	119	748
251		2	10	36	13	59
297		2	20	53	19	92
298		2	65	186	66	317
338	3B	3	16	30	10	56
339	3B	3	16	28	20	64
343	3A	3	30	107	19	156
345	3A	4	19	55	14	88
347	3A	4	21	87	15	123
348	3A	4	32	159	32	223
412	4A	4	16	48	14	78
412	4B	4	10	41	14	65
420	4A	4	17	34	13	64
420	4B	4	11	32	10	53
421	4A	4	5	21	10	36
421	4B	4	3	6	4	13
452	4A	4	4	24	0	28
452	4B	4	7	28	6	41
456	4A	4	8	37	6	51
456	4B	4	8	30	5	43
461	4A	4	5	36	9	50
461	4B	4	5	40	15	60
462	4A	4	17	59	12	88
462	4B	4	18	50	12	80
464	4A	4	4	13	1	18
464	4B	4	7	25	5	37
465	4A	4	4	16	4	24
465	4B	4	7	33	5	45
466	4A	4	11	28	4	43
466	4B	4	17	53	13	83
Total			**2,989**	**9,726**	**2,476**	**15,191**

Table 4b. Firearm Bonus Permit Harvest by Permit Area, 2006. Intensive Permit Areas

Permit Area	A or B Season	Zone	Fawn Male	Adult Female	Fawn Female	Total
105		1	201	720	179	1,100
110		1	126	382	113	621
111		1	146	499	117	762
156		1	278	790	230	1,298
157		1	471	1,328	443	2,242
159		1	184	523	153	860
180		1	132	565	74	771
181		1	253	752	210	1,215
182		1	34	102	16	152
183		1	219	710	174	1,103
184		1	672	1,879	667	3,218
202		2	31	107	26	164
204		2	77	229	54	360
206		2	77	254	66	397
207		2	66	167	37	270
208		2	41	143	36	220
209		2	80	260	104	444
210		2	160	387	133	680
213		2	219	544	215	978
214		2	278	612	227	1,117
221		2	159	372	175	706
222		2	155	311	131	597
225		2	186	514	163	863
227		2	110	262	82	454
228		2	26	71	18	115
229		2	32	74	23	129
236		2	69	247	60	376
239		2	245	705	249	1,199
240		2	283	752	307	1,342
241		2	250	623	247	1,120
242		2	112	271	98	481
243		2	230	514	136	880
244		2	373	965	415	1,753
245		2	340	821	298	1,459
246		2	374	918	368	1,660
248		2	64	133	53	250
252		2	37	121	26	184
253		3	51	217	56	324
254		3	54	189	70	313
255		3	106	330	88	524
256		3	90	345	80	515
257		3	69	213	79	361
258		3	98	265	74	437
259		3	66	171	58	295
287		3	21	59	17	97
337	3A	3	27	78	21	126
337	3B	4	11	57	15	83
341	3B	4	82	232	72	386
342	3B	4	57	209	76	342
343	3B	4	111	256	74	441
345	3B	4	51	150	53	254
346	3A	4	44	170	44	258
346	3B	4	116	295	94	505
347	3B	4	79	262	59	400
348	3B	4	58	252	61	371
349	3A	4	73	294	79	446
349	3B	4	155	522	146	823
467	4A	4	22	46	8	76
467	4B	4	18	92	16	126
Total			**8,249**	**23,331**	**7,463**	**39,043**

Table 5. Multi-Zone Buck Harvest by Permit Area, 2006.

Zone 1		Zone 2		Zone 3		Zone 4	
Permit Area	**Adult Male**	**Permit Area**	**Adult Male**	**Permit Area**	**Adult Male**	**Permit Area**	**Adult Male**
104	21	201	2	337	18	412	99
105	25	202	2	338	7	416	78
107	14	203	2	339	11	417	139
110	7	204	10	341	8	420	70
111	42	206	21	342	13	421	26
114	1	207	5	343	14	422	52
115	25	208	9	344	12	423	32
116	1	209	12	345	2	424	42
122	4	210	41	346	7	425	28
126	6	213	66	347	9	426	31
127	3	214	28	348	5	427	47
152	6	215	54	349	6	428	42
154	27	218	20	**Zone 3 Total**	**112**	431	21
156	18	219	24			433	65
157	52	221	15			435	58
159	22	222	30			440	51
167	21	223	12			442	76
168	15	224	3			443	39
170	44	225	36			446	27
172	49	227	24			447	37
174	17	228	14			448	82
175	13	229	14			449	45
178	21	235	4			450	31
180	11	236	20			451	73
181	14	239	58			452	44
182	6	240	45			453	34
183	20	241	35			454	63
184	99	242	15			455	7
197	21	243	23			456	78
Zone 1 Total	**625**	244	30			457	45
		245	46			458	38
		246	44			459	50
		247	18			461	80
		248	5			462	85
		249	14			463	43
		251	1			464	46
		252	7			465	32
		253	10			466	84
		254	4			467	90
		255	14			**Zone 4 Total**	**2,110**
		256	18				
		257	15				
		258	22				
		259	6				
		287	7				
		297	7				
		298	14				
		Zone 2 Total	**926**				

Grand Total	**3,773**

Table 6. Summary of Firearms Special Hunts, 2006. Includes regular, youth, all-season licenses, and bonus permits.

				Harvest				
Area	Dates	Zone	Permits Issued	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
901 - Rice Lake Nat. Wildlife Refuge	11/11 - 11/19	1A	100*	3	3	4	2	12
902 - St. Croix State Park[1]	11/11 - 11/14	1A	550**	62	49	116	47	274
903 - Savanna Portage SP[1]	11/11 - 11/19	1A	55***	7	2	11	4	24
904 - Gooseberry Falls SP[1]	11/4 - 11/19	1A	30*	2	1	5	0	8
905 - Split Rock Lighthouse SP[1]	11/4 - 11/19	1A	30*	0	0	3	0	3
906 - Tettegouche State Park[1]	11/4 - 11/19	1A	125*	7	2	7	2	18
907 - Scenic State Park[1]	11/4 - 11/19	1A	30*	0	3	1	1	5
908 - Hayes Lake State Park[1]	11/4 - 11/19	1A	60#	0	4	8	3	15
909 - Lake Bemidji State Park[1]	11/4 - 11/7	1A	35#	0	5	4	2	11
910 - Zippel Bay State Park[1]	11/4 - 11/19	1A	55#	0	3	5	5	13
911 - Wild River State Park[1]	11/4 - 11/7	2A	150**	18	30	47	21	116
912 - Old Mill State Park[1]	11/4 - 11/7	2A	7#	1	0	0	0	1
913 - William O'Brien State Park[1]	11/4 - 11/5	2A	65*	7	3	9	3	22
914 - Lake Bronson State Park [1]	11/4 – 11/12	2A	25#	0	0	5	1	6
915 – Buffalo River State Park [1]	11/4-11/5	2A	12#	0	1	6	2	9
916 – Maplewood State Park [1]	11/4 - 11/12	2A	100**	31	22	42	27	122
917 – Rydell NWR [1]	11/4 - 11/12	2A	5#	0	1	1	1	3
918 – Lake Alexander SNA [1]	11/4 - 11/12	2A	40*	1	0	4	2	7
919 – Beaver Creek Valley SP [1]	11/4 - 11/5	3A	20*	8	2	5	2	17
920 - Zumbro Falls SNA [1]	11/4 - 11/10	3A	12#	0	2	4	3	9
921 – Forestville/Mystery Cave SP[1]	11/18 - 11/20 11/24 – 11/26	3B	110***	11	25	36	21	93
922 - Frontenac SP[1]	11/18 - 11/20	3B	50**	9	9	22	9	49
923 – Great River Bluffs SP [1]	11/18 - 11/20 11/24 – 11/26	3B	100**	19	11	30	16	76
924 – Zumbro Falls SNA [1]	11/18 - 11/26	3B	12#	0	3	8	0	11
925 - Kellogg - Weaver Dunes SNA[1]	11/18 - 11/26	3B	15#	0	3	2	1	6
926 – Elm Creek Park Reserve[1]	11/18 - 11/19	3B	145*	33	10	39	18	100
927 – Lake Rebecca Park Reserve [1]	11/25 – 11/26	3B	75*	13	5	9	9	36
928 - Whitewater Refuge	11/18 – 11/26	3B	75#	0	4	16	4	24
927 - Glacial Lakes State Park [1]	11/11 - 11/14	4B	30#	0	1	11	2	14
930 – Lake Louise SP [1]	11/11 – 11/12	4B	25**	4	9	25	1	39
TOTAL				236	213	485	209	1,143

[1] Bonus permits available *Either sex ** Earn –A-Buck ***Antler Point Restriction # Antlerless Only

Table 7. Free Landowner Firearms Harvest by Permit Area, 2006.

Permit Area	Fawn Male	Adult Female	Fawn Female	Total
104	3	10	4	17
105	3	5	1	9
107	1	0	0	1
110	1	8	2	11
111	1	4	1	6
122	0	1	1	2
154	0	2	1	3
156	2	2	0	4
157	11	27	8	46
159	0	5	1	6
167	0	2	0	2
170	1	9	5	15
172	1	3	0	4
174	2	1	0	3
175	2	7	1	10
178	1	5	1	7
180	0	2	0	2
181	1	3	2	6
182	0	3	1	4
183	0	1	1	2
184	9	31	10	50
197	0	3	1	4
201	0	1	0	1
202	1	3	0	4
204	2	5	2	9
206	1	2	1	4
207	0	8	0	8
208	2	4	1	7
209	2	5	1	8
210	3	12	3	18
213	11	34	12	57
214	14	58	27	99
215	23	19	14	56
218	1	3	4	8
219	3	4	0	7
221	7	27	7	41
222	1	10	2	13
223	1	1	0	2
225	2	11	7	20
227	3	2	0	5
228	2	0	0	2
229	1	2	1	4
236	3	1	0	4

Permit Area	Fawn Male	Adult Female	Fawn Female	Total
239	11	21	6	38
240	8	22	10	40
241	11	22	5	38
242	0	0	2	2
243	5	19	3	27
244	9	21	8	38
245	3	6	1	10
246	5	15	4	24
247	0	4	1	5
248	2	5	3	10
249	10	27	13	50
252	0	2	0	2
253	4	16	1	21
254	0	2	3	5
255	3	11	1	15
256	0	10	4	14
257	8	10	3	21
258	3	13	7	23
259	5	9	1	15
297	2	1	1	4
298	2	6	2	10
337	1	0	0	1
338	0	0	2	2
339	0	3	0	3
341	11	19	8	38
342	10	21	6	37
343	5	14	7	26
345	4	18	4	26
346	14	29	5	48
347	2	13	4	19
348	3	16	5	24
349	9	46	9	64
412	1	5	2	8
420	3	9	5	17
421	0	3	0	3
452	0	6	1	7
456	1	4	2	7
461	3	9	2	14
462	3	4	1	8
465	1	1	1	3
466	1	6	2	9
467	1	6	6	13
TOTAL	286	820	274	1,380

Table 8. Archery Harvest by Permit Area, 2006. Includes regular, youth, all-season, and bonus permits.

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
104	31	7	46	5	89
105	31	13	104	10	158
107	37	4	62	8	111
110	11	5	42	11	69
111	21	8	60	8	97
114	11	0	13	0	24
115	36	12	76	8	132
116	4	2	10	0	16
122	11	1	22	3	37
126	11	1	29	1	42
127	4	1	5	0	10
152	4	2	5	2	13
154	82	19	118	29	248
156	50	24	158	34	266
157	136	65	317	48	566
159	66	27	147	17	257
167	8	4	23	4	39
168	44	11	95	6	156
170	112	29	228	30	399
172	70	30	152	22	274
174	27	19	74	10	130
175	52	15	83	15	165
178	78	28	129	23	258
180	104	28	142	31	305
181	151	32	219	26	428
182	158	69	452	99	778
183	51	23	126	22	222
184	151	91	446	86	774
197	20	11	51	6	88
199	2	0	5	1	8
201	0	0	4	1	5
202	4	2	6	4	16
203	2	0	0	0	2
204	12	5	29	3	49
206	16	5	40	9	70
207	13	3	14	2	32
208	9	2	14	0	25
209	25	10	52	7	94
210	24	14	51	10	99
213	155	64	326	34	579
214	60	43	187	35	325
215	84	33	165	37	319
218	88	30	137	40	295
219	78	23	110	28	239
221	70	45	167	48	330
222	61	26	158	20	265
223	90	37	137	29	293
224	12	6	18	2	38
225	120	57	222	40	439
227	181	91	309	64	645
228	306	107	384	74	871
229	56	27	95	21	199

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
235	19	5	22	2	48
236	234	86	371	69	760
239	66	37	170	25	298
240	76	36	220	43	375
241	47	36	204	47	334
242	71	67	250	57	445
243	47	31	152	36	266
244	61	60	214	45	380
245	96	55	228	48	427
246	73	55	205	31	364
247	74	31	141	15	261
248	49	28	72	19	168
249	82	29	117	27	255
251	2	3	4	1	10
252	13	2	30	8	53
253	28	12	63	12	115
254	12	3	31	6	52
255	23	11	48	4	86
256	16	12	45	2	75
257	14	9	39	4	66
258	31	9	64	10	114
259	11	6	24	6	47
287	2	1	2	0	5
297	7	3	12	3	25
298	7	6	25	3	41
337	250	87	391	68	796
338	60	12	81	7	160
339	69	14	52	14	149
341	137	53	225	36	451
342	103	31	143	32	309
343	227	75	406	51	759
344	48	6	40	10	104
345	81	30	154	37	302
346	141	50	243	50	484
347	97	33	187	31	348
348	81	23	159	42	305
349	173	53	288	55	569
412	23	12	51	8	94
416	29	11	35	5	80
417	112	34	170	28	344
420	27	9	51	4	91
421	17	5	17	3	42
422	12	4	13	1	30
423	10	2	15	1	28
424	8	5	20	4	37
425	6	1	13	0	20
426	27	2	19	0	48
427	19	3	27	4	53
428	56	17	62	9	144
431	11	4	35	2	52
433	42	13	43	10	108
435	23	12	26	3	64

Table 8. Continued

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
440	33	13	61	14	121
442	115	19	125	16	275
443	39	10	50	7	106
446	7	2	15	2	26
447	15	3	23	1	42
448	16	2	28	2	48
449	36	8	59	7	110
450	19	0	15	0	34
451	21	2	38	5	66
452	24	3	24	7	58
453	24	3	22	2	51
454	41	7	69	4	121
455	4	1	11	3	19
456	44	11	55	2	112
457	24	4	34	4	66
458	28	2	36	3	69
459	38	9	60	8	115
461	41	12	96	2	151
462	70	22	113	14	219
463	27	1	23	3	54
464	25	6	33	10	74
465	41	9	53	9	112
466	41	12	61	5	119
467	66	22	141	15	244
953*	81	28	133	31	273
954**	86	26	107	27	246
Total	**7,096**	**2,682**	**13,268**	**2,314**	**25,360**

* Camp Ripley First Hunt
** Camp Ripley Second Hunt

Table 9. Archery Harvest using Bonus Permits by Permit Area, 2006.

Permit Area	Fawn Male	Adult Female	Fawn Female	Total
104	0	18	3	21
105	6	50	4	60
107	0	20	3	23
110	2	22	7	31
111	3	26	4	33
114	0	5	0	5
115	8	34	4	46
122	0	5	3	8
126	0	11	1	12
154	6	50	13	69
156	15	92	16	123
157	42	192	27	261
159	15	93	7	115
167	1	6	2	9
168	6	22	3	31
170	7	79	11	97
172	6	68	8	82
174	8	28	2	38
175	5	34	12	51
178	8	52	8	68
180	13	90	20	123
181	17	136	18	171
182	54	375	82	511
183	11	78	13	102
184	50	274	59	383
197	0	20	1	21
201	0	2	0	2
202	2	2	2	6
204	4	12	2	18
206	1	17	5	23
207	2	9	1	12
208	1	8	0	9
209	4	35	1	40
210	8	24	8	40
213	25	108	8	141
214	13	94	13	120
215	9	46	11	66
218	13	36	13	62
219	12	34	10	56
221	22	64	30	116
222	14	80	13	107
223	14	60	10	84
224	2	11	1	14
225	30	137	27	194
227	54	175	43	272
228	77	297	60	434
229	19	56	13	88

Permit Area	Fawn Male	Adult Female	Fawn Female	Total
235	3	11	1	15
236	62	274	54	390
239	16	64	11	91
240	16	84	17	117
241	15	71	23	109
242	43	161	42	246
243	13	58	17	88
244	30	114	25	169
245	30	130	24	184
246	21	106	18	145
247	9	61	7	77
248	14	40	10	64
249	14	43	14	71
251	1	3	0	4
252	2	20	3	25
253	7	41	12	60
254	1	13	4	18
255	6	27	2	35
256	3	29	1	33
257	6	20	2	28
258	5	28	5	38
259	4	11	4	19
287	1	0	0	1
297	1	3	0	4
298	2	12	0	14
337	58	291	55	404
338	7	39	4	50
339	8	22	7	37
341	36	164	28	228
342	20	91	24	135
343	53	287	32	372
345	24	104	23	151
346	38	184	44	266
347	23	122	20	165
348	17	109	31	157
349	36	197	44	277
412	5	10	4	19
420	5	20	1	26
421	2	6	0	8
452	1	9	4	14
456	7	16	2	25
461	1	37	1	39
462	8	40	6	54
464	1	13	3	17
465	2	31	3	36
466	8	22	2	32
467	9	81	5	95
TOTAL	**1,303**	**6,506**	**1,241**	**9,050**

Table 10. Summary of Archery Special Hunts, 2006. Includes regular, youth, and bonus permits.

Area	Dates	Permits Issued	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
Camp Ripley	10/19-10/20	2,250	81	28	133	31	273
Camp Ripley	10/28-10/29	2,250	86	26	107	27	246
Cleary Lake	11/10-11/12	55	3	1	1	1	6
Crow-Hassan Park Reserve	11/10-11/12	130	6	2	12	2	22
Murphy-Hanrahan Park Reserve	11/10-11/12	185	12	6	5	4	27
City of New Ulm	10/14-12/31	50	No data				
City of Mankato	10/21-12/31	40	No data				
City of Red Wing	9/16-12/31	85**	4	6	26	1	37
Camp Ripley - Youth	10/6 - 10/8	150	5	2	6	0	13
Lake Alexander Preserve	10/6-10/8	20	0	1	1	0	2
Arden Hills - Site A	10/19-10/20	30	0	0	0	0	6
Arden Hills - Site B	10/21-10/22	30	0	0	0	0	5

*Total permits for this hunt was 50 and hunters could use either firearms or archery equipment.
**Total number of hunters. Permits were unlimited.

Table 11. Free Landowner Archery Harvest by Permit Area, 2006.

Permit Area	Fawn Male	Adult Female	Fawn Female	Total
104	0	1	0	1
110	0	1	0	1
154	0	1	0	1
181	0	1	0	1
184	0	1	0	1
209	0	1	0	1
213	1	1	0	2
214	0	1	0	1
215	0	1	0	1
218	0	1	0	1
221	0	1	0	1
223	0	1	0	1
239	0	1	0	1
243	0	2	0	2
244	0	1	0	1
245	0	1	0	1
246	0	1	0	1
248	0	0	1	1
249	0	2	0	2
341	0	1	1	2
342	0	1	0	1
343	3	5	3	11
345	0	0	1	1
462	0	1	0	1
TOTAL	4	28	6	38

Table 12. Muzzleloader Harvest by Permit Area, 2006. Includes regular muzzleloader, youth, and bonus permits.

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
104	11	6	43	7	67
105	26	6	55	12	99
107	16	11	48	10	85
110	13	9	24	2	48
111	25	4	38	6	73
115	38	16	82	15	151
122	2	0	12	0	14
127	2	0	0	0	2
152	4	2	6	8	20
154	13	10	44	11	78
156	19	6	71	12	108
157	27	32	91	21	171
159	23	9	43	8	83
167	6	2	17	9	34
168	18	8	78	8	112
170	28	24	68	16	136
172	14	15	92	21	142
174	14	11	39	7	71
175	19	6	37	5	67
178	17	17	62	10	106
180	17	11	55	8	91
181	12	9	50	9	80
182	5	3	12	2	22
183	12	8	37	7	64
184	59	35	159	42	295
197	14	8	13	6	41
199	1	2	2	1	6
201	0	0	2	0	2
202	7	4	9	2	22
203	2	0	0	0	2
204	25	9	46	10	90
206	29	8	39	11	87
207	20	5	32	7	64
208	10	1	19	1	31
209	13	1	32	2	48
210	26	18	40	8	92
213	52	34	129	23	238
214	24	21	79	25	149
215	30	25	70	18	143
218	31	30	64	16	141
219	39	21	58	17	135
221	23	17	64	16	120
222	24	18	56	9	107
223	29	8	41	12	90
224	1	1	2	0	4
225	33	16	83	10	142
227	33	19	64	16	132
228	5	2	16	5	28
229	12	7	17	8	44
235	1	2	6	1	10
236	28	25	65	9	127
239	43	30	87	21	181
240	36	36	71	26	169
241	23	29	93	29	174
242	21	18	58	15	112
243	17	19	64	21	121
244	52	46	123	47	268
245	54	42	130	45	271
246	35	32	90	27	184
247	30	18	57	16	121
248	18	9	25	10	62
249	24	16	43	17	100
251	0	0	5	1	6
252	27	20	44	6	97
253	36	13	60	21	130
254	25	9	43	10	87
255	36	17	45	8	106
256	19	10	45	5	79
257	21	3	25	1	50
258	31	11	66	18	126
259	14	6	40	6	66
287	0	0	2	0	2
297	7	6	21	12	46
298	15	5	35	3	58
337	9	5	20	4	38
338	13	13	30	5	61
339	6	4	21	3	34
341	34	28	76	20	158
342	55	27	142	35	259
343	33	28	128	23	212
344	21	18	45	12	96
345	17	18	67	14	116
346	26	26	96	19	167
347	35	22	141	20	218
348	30	27	96	24	177
349	54	46	162	24	286
412	23	9	50	3	85
416	32	21	90	14	157
417	73	42	174	20	309
420	30	9	47	3	89
421	16	4	16	5	41
422	13	4	26	5	48
423	16	2	13	2	33
424	22	15	62	13	112
425	12	6	21	3	42
426	10	11	35	6	62
427	15	9	39	6	69
428	17	12	59	11	99
431	23	16	56	15	110
433	46	28	119	36	229
435	31	9	67	15	122
440	33	20	78	19	150

Table 12. (continued)

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
440	33	20	78	19	150
442	57	32	129	24	242
443	26	26	77	20	149
446	18	18	54	12	102
447	17	6	31	4	58
448	22	11	54	12	99
449	41	22	124	14	201
451	49	22	102	23	196
452	20	5	47	2	74
453	36	19	74	14	143
454	76	23	155	20	274
455	8	4	18	3	33
456	33	6	102	5	146
457	18	15	55	9	97
458	20	14	54	12	100
459	49	30	138	17	234
461	17	21	75	16	129
462	25	29	79	17	150
463	12	11	29	5	57
464	13	5	28	2	48
465	15	12	39	9	75
466	19	29	89	17	154
467	36	21	93	21	171
TOTAL	**2,923**	**1,823**	**7,247**	**1,514**	**13,507**

Table 13. Muzzleloader Harvest using Bonus Permits by Permit Area, 2006.

Permit Area	Fawn Male	Adult Female	Fawn Female	Total
104	0	1	1	2
105	0	14	3	17
110	3	6	1	10
111	1	7	0	8
115	1	6	1	8
154	3	1	2	6
156	2	14	2	18
157	12	14	7	33
159	2	7	2	11
167	0	0	2	2
168	0	6	0	6
170	3	6	0	9
172	1	9	1	11
174	0	1	2	3
178	1	1	1	3
180	1	8	3	12
181	2	8	2	12
182	1	2	1	4
183	0	7	2	9
184	8	38	6	52
197	1	2	0	3
202	0	1	0	1
204	1	12	5	18
206	2	9	5	16
207	3	6	1	10
208	0	2	0	2
209	0	1	0	1
210	3	9	2	14
213	3	20	3	26
214	4	16	3	23
215	2	0	4	6
218	1	6	0	7
219	2	3	0	5
221	3	10	1	14
222	3	10	1	14
223	1	3	0	4
224	0	1	0	1
225	6	20	5	31
227	6	13	3	22
228	1	5	2	8
229	1	3	3	7
236	7	11	2	20
239	5	17	6	28
240	4	5	7	16
241	9	26	9	44
242	6	12	8	26
243	3	16	6	25
244	10	27	11	48
245	13	34	10	57
246	7	24	9	40
247	1	9	1	11
248	2	5	2	9
249	3	2	1	6
252	2	8	0	10
253	0	19	7	26
254	3	6	2	11
255	3	16	0	19
256	1	6	2	9
257	1	6	0	7
258	3	13	7	23
259	2	13	0	15
297	3	2	2	7
298	0	5	0	5
337	1	6	2	9
338	2	1	1	4
339	0	3	0	3
341	8	14	6	28
342	8	39	11	58
343	5	26	5	36
345	1	16	4	21
346	5	18	4	27
347	6	27	3	36
348	8	27	4	39
349	6	49	8	63
412	2	4	0	6
420	1	1	0	2
421	0	1	0	1
452	0	6	1	7
456	1	6	0	7
461	2	5	2	9
462	5	5	3	13
464	1	2	0	3
465	0	4	0	4
466	3	7	1	11
467	7	25	5	37
TOTAL	**244**	**882**	**229**	**1,355**

Table 14. Summary of Muzzleloader Special Hunts, 2006. Includes regular, youth, all-season, and bonus permits.

Area	Dates	Permits Issued	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
931 - Jay Cooke SP[1]	11/25 - 11/29	120*	26	7	35	7	75
932 - Crow Wing SP[1]	12/1 - 12/3	40*	4	3	12	5	24
933 - Lake Shetek SP[1]	12/2 - 12/5	25**	0	5	14	3	22
934 - Sibley SP	12/2 - 12/3	40**	0	3	6	4	13
935 – Rice Lake SP[1]	11/25 - 11/27	15**	0	1	4	5	10
936 - Interstate SP [1]	11/25 - 11/29	10**	0	0	1	1	2
TOTAL			30	29	72	25	146

[1] Bonus permits available *Either Sex **Antlerless Only

Table 15. Free Landowner Muzzleloader Harvest by Permit Area, 2006.

Permit Area	Fawn Male	Adult Female	Fawn Female	Total
105	0	1	0	1
157	0	1	0	1
170	0	1	0	1
181	0	1	0	1
208	0	1	0	1
210	0	0	1	1
213	0	1	0	1
215	0	1	0	1
221	0	1	0	1
241	0	1	2	3
243	0	1	0	1
244	0	1	0	1
256	0	1	0	1
343	1	0	0	1
346	0	2	0	2
347	1	0	1	2
349	1	2	1	4
462	0	1	0	1
467	0	1	0	1
Total	**3**	**18**	**5**	**26**

Table 16. Firearms All-Season Deer Harvest by Permit Area, 2006.

Zone 1					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
104	105	28	165	21	319
105	96	41	204	48	389
107	152	37	196	33	418
110	68	29	121	31	249
111	131	54	198	49	432
114	5	3	4	0	12
115	194	61	204	55	514
116	7	2	9	1	19
122	40	13	38	2	93
126	38	8	39	8	93
127	5	1	6	0	12
152	20	7	13	7	47
154	132	71	275	71	549
156	115	62	216	46	439
157	208	144	390	125	867
159	99	37	145	28	309
167	81	25	117	37	260
168	147	47	212	50	456
170	254	97	383	93	827
172	207	125	356	101	789
174	104	44	134	31	313
175	109	45	169	31	354
178	132	64	187	42	425
180	97	21	95	15	228
181	125	59	156	39	379
182	23	8	18	2	51
183	115	38	166	37	356
184	382	214	684	211	1491
197	126	45	184	42	397
199	7	0	2	0	9
Zone 1	**3,324**	**1,430**	**5,086**	**1,256**	**11,096**

Zone 3					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
337	51	7	40	16	114
338	37	6	20	3	66
339	33	4	13	0	50
341	72	9	41	8	130
342	83	14	26	8	131
343	69	22	80	11	182
344	48	5	24	3	80
345	58	12	36	9	115
346	92	28	89	19	228
347	84	25	109	19	237
348	96	20	94	14	224
349	133	27	117	16	293
Zone 3 Total	**856**	**179**	**689**	**126**	**1,850**

Zone 2					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
201	10	4	11	4	29
202	20	11	43	11	85
203	9	1	6	0	16
204	55	29	122	23	229
206	54	32	111	26	223
207	30	21	65	13	129
208	24	16	63	13	116
209	66	33	100	29	228
210	104	41	163	44	352
213	269	212	538	155	1174
214	215	197	445	143	1000
215	150	101	322	122	695
218	127	99	273	86	585
219	190	77	181	47	495
221	134	104	249	86	573
222	119	66	191	53	429
223	65	31	94	28	218
224	16	7	27	9	59
225	160	64	180	43	447
227	99	50	127	41	317
228	40	7	41	9	97
229	32	22	63	11	128
235	7	3	5	6	21
236	77	19	83	24	203
239	238	169	469	139	1015
240	246	173	489	171	1079
241	198	144	396	108	846
242	64	33	112	22	231
243	137	104	260	77	578
244	238	184	378	160	960
245	225	147	428	128	928
246	218	174	439	132	963
247	96	54	149	38	337
248	55	27	99	35	216
249	127	78	241	84	530
251	22	11	13	4	50
252	43	9	45	5	102
253	49	21	92	15	177
254	37	20	80	12	149
255	60	27	134	39	260
256	62	39	130	20	251
257	54	19	80	23	176
258	84	60	202	59	405
259	55	39	105	28	227
287	13	3	22	2	40
297	28	14	44	10	96
298	98	34	116	45	293
Zone 2 Total	**4,519**	**2,830**	**8,026**	**2,382**	**17,757**

Table 16. (Continued).

Zone 4					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
412	106	42	173	48	369
416	144	19	66	13	242
417	302	48	187	42	579
420	69	48	134	37	288
421	42	19	71	22	154
422	52	3	18	4	77
423	29	5	22	9	65
424	75	7	23	3	108
425	38	5	13	3	59
426	68	9	34	4	115
427	59	2	11	3	75
428	91	10	53	11	165
431	40	3	18	2	63
433	113	16	77	23	229
435	97	13	51	10	171
440	95	12	96	7	210
442	175	24	86	19	304
443	76	17	55	4	152
446	62	7	26	3	98
447	41	4	21	7	73
448	58	10	46	3	117
449	126	18	88	6	238
450	47	1	18	4	70
451	89	9	40	8	146
452	48	11	77	7	143
453	88	6	45	4	143
454	116	17	91	10	234
455	20	0	13	1	34
456	111	43	160	43	357
457	74	10	45	6	135
458	57	14	26	4	101
459	122	12	55	9	198
461	107	69	218	51	445
462	177	81	250	43	551
463	71	14	54	12	151
464	89	41	122	22	274
465	75	37	84	18	214
466	136	48	218	34	436
467	143	64	230	33	470
Zone 4 Total	**3,528**	**818**	**3,115**	**592**	**8,053**

Special Hunts					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
901	1	0	1	0	2
902	19	12	31	8	70
903	3	1	4	1	9
906	1	1	0	0	2
907	0	1	0	1	2
908	0	1	1	0	2
909	0	1	1	0	2
910	0	1	0	0	1
911	11	6	17	6	40
913	1	0	1	0	2
914	0	0	1	0	1
915	0	0	4	0	4
916	14	9	17	13	53
918	1	0	1	0	2
919	2	0	1	0	3
929	0	0	7	0	7
930	4	6	13	0	23
956	0	0	1	0	1
959	0	0	1	0	1
Special Hunts Total	**57**	**39**	**102**	**29**	**227**

GRAND TOTAL	**12,284**	**5,296**	**17,018**	**4,385**	**38,983**

Table 17. Archery All-Season Deer Harvest by Permit Area, 2006.

Zone 1					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
104	10	4	18	2	34
105	11	4	39	3	57
107	12	0	27	2	41
110	6	3	16	3	28
111	11	4	22	3	40
114	3	0	6	0	9
115	13	2	23	2	40
116	1	0	2	0	3
122	2	0	8	0	10
126	1	0	13	0	14
127	1	0	2	0	3
152	1	2	0	0	3
154	25	6	35	9	75
156	9	3	37	14	63
157	28	12	76	12	128
159	7	7	28	7	49
167	3	0	11	0	14
168	17	1	40	2	60
170	31	10	112	12	165
172	21	16	62	8	107
174	3	5	29	4	41
175	12	1	20	1	34
178	20	8	39	7	74
180	17	10	32	7	66
181	20	9	49	5	83
182	15	7	43	10	75
183	12	6	25	4	47
184	39	27	130	14	210
197	7	5	19	5	36
199	1	0	2	1	4
Zone 1 Total	**359**	**152**	**965**	**137**	**1,613**

Zone 3					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
337	40	18	54	7	119
338	13	3	30	3	49
339	10	4	17	6	37
341	20	6	34	4	64
342	17	6	34	6	63
343	38	10	85	9	142
344	11	0	20	3	34
345	18	3	43	10	74
346	25	4	49	5	83
347	20	4	57	9	90
348	14	3	40	7	64
349	30	8	73	7	118
Zone 3 Total	**256**	**69**	**536**	**76**	**937**

Zone 2					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
201	0	0	0	1	1
202	1	0	4	2	7
204	4	1	12	1	18
206	8	2	15	0	25
207	8	1	2	1	12
208	5	1	6	0	12
209	10	1	11	2	24
210	4	1	20	2	27
213	40	20	151	20	231
214	19	23	83	16	141
215	37	17	98	23	175
218	35	11	82	18	146
219	48	9	64	13	134
221	18	19	89	15	141
222	20	8	61	7	96
223	24	19	49	13	105
224	1	2	3	1	7
225	16	20	57	9	102
227	40	23	96	12	171
228	34	15	49	8	106
229	17	7	29	3	56
235	2	0	3	0	5
236	30	13	59	9	111
239	32	19	97	11	159
240	36	16	124	19	195
241	23	17	120	16	176
242	19	12	61	7	99
243	18	15	76	14	123
244	20	24	84	17	145
245	29	21	83	18	151
246	23	25	77	10	135
247	17	15	51	5	88
248	17	7	24	6	54
249	22	10	46	11	89
251	0	1	1	0	2
252	4	0	9	4	17
253	8	3	21	0	32
254	5	0	16	2	23
255	5	3	14	2	24
256	3	6	13	1	23
257	4	2	19	2	27
258	11	4	30	4	49
259	5	2	12	2	21
287	1	0	2	0	3
297	4	1	8	3	16
298	4	3	11	3	21
Zone 2 Total	**731**	**419**	**2,042**	**333**	**3,525**

Table 17. (Continued).

Zone 4					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
412	11	7	33	2	53
416	17	8	29	4	58
417	63	29	141	19	252
420	13	4	24	3	44
421	3	3	9	3	18
422	4	4	9	0	17
423	7	0	9	1	17
424	4	2	16	2	24
425	4	1	9	0	14
426	17	2	16	0	35
427	10	3	22	3	38
428	35	10	53	5	103
431	7	2	21	0	30
433	25	11	39	8	83
435	7	7	19	1	34
440	23	8	43	10	84
442	59	14	106	12	191
443	26	8	41	6	81
446	5	1	9	2	17
447	8	3	22	1	34
448	10	2	26	2	40
449	16	6	43	5	70
450	11	0	12	0	23
451	12	0	32	5	49

Zone 4					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
452	9	1	13	2	25
453	7	3	18	2	30
454	17	5	65	4	91
455	1	1	9	3	14
456	16	3	33	0	52
457	14	3	27	4	48
458	11	2	22	2	37
459	25	7	47	5	84
461	15	6	50	1	72
462	25	11	61	7	104
463	13	0	15	3	31
464	10	4	18	3	35
465	18	5	14	2	39
466	19	2	28	2	51
467	23	8	50	6	87
Zone 4 Total	**620**	**196**	**1,253**	**140**	**2,209**

GRAND TOTAL	**1,966**	**836**	**4,796**	**686**	**8,284**

Table 18. Muzzleloader All-Season Deer Harvest by Permit Area, 2006.

Zone 1					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
104	7	6	41	6	60
105	18	6	38	8	70
107	16	11	48	10	85
110	12	6	16	1	35
111	20	2	30	6	58
115	31	14	74	13	132
122	2	0	9	0	11
127	1	0	0	0	1
152	4	1	5	8	18
154	11	6	39	9	65
156	14	4	49	9	76
157	24	19	69	14	126
159	18	7	30	5	60
167	6	2	15	7	30
168	17	7	68	8	100
170	25	20	57	16	118
172	13	14	74	17	118
174	12	10	34	4	60
175	16	6	34	5	61
178	16	13	61	8	98
180	14	7	44	4	69
181	11	6	39	7	63
182	3	2	9	1	15
183	11	7	25	4	47
184	54	25	110	35	224
197	14	6	11	6	37
199	1	2	2	1	6
Zone 1 Total	**391**	**209**	**1,031**	**212**	**1,843**

Zone 3					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
337	7	4	11	2	24
338	9	11	22	4	46
339	6	2	16	3	27
341	17	16	58	11	102
342	17	14	75	17	123
343	25	20	91	16	152
344	15	17	38	9	79
345	13	17	48	10	88
346	23	19	71	15	128
347	26	14	108	15	163
348	22	15	58	17	112
349	37	34	103	15	189
Zone 3 Total	**217**	**183**	**699**	**134**	**1,233**

Zone 2					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
201	0	0	2	0	2
202	5	4	8	2	19
203	2	0	0	0	2
204	21	6	31	5	63
206	22	6	29	6	63
207	19	2	26	6	53
208	10	1	16	1	28
209	10	1	31	2	44
210	20	11	27	4	62
213	48	30	105	20	203
214	24	16	62	19	121
215	29	20	67	14	130
218	27	28	55	16	126
219	35	19	55	16	125
221	23	12	49	15	99
222	22	14	43	8	87
223	24	6	37	10	77
224	1	0	1	0	2
225	25	8	59	5	97
227	28	13	45	12	98
228	4	1	10	3	18
229	9	6	13	3	31
235	1	2	4	1	8
236	22	17	49	6	94
239	40	24	63	15	142
240	31	31	64	18	144
241	20	17	61	17	115
242	16	10	43	7	76
243	17	14	46	14	91
244	47	34	93	35	209
245	46	26	90	33	195
246	32	24	62	16	134
247	25	16	44	12	97
248	18	6	20	8	52
249	21	10	38	14	83
251	0	0	5	1	6
252	22	17	29	4	72
253	25	12	37	14	88
254	21	6	34	6	67
255	23	13	27	7	70
256	13	8	37	3	61
257	14	2	18	1	35
258	28	8	50	11	97
259	14	4	26	6	50
287	0	0	1	0	1
297	6	2	18	8	34
298	15	4	28	3	50
Zone 2 Total	**925**	**511**	**1,758**	**427**	**3,621**

Table 18. (Continued).

Zone 4					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
412	17	7	42	3	69
416	30	19	86	14	149
417	64	40	159	18	281
420	23	8	46	3	80
421	16	4	15	5	40
422	13	3	25	5	46
423	13	2	13	2	30
424	18	12	56	10	96
425	11	6	20	3	40
426	7	9	29	5	50
427	15	9	36	5	65
428	16	11	54	11	92
431	20	15	47	12	94
433	39	23	114	28	204
435	26	9	64	14	113
440	27	14	69	18	128
442	42	27	114	22	205
443	21	22	70	16	129
446	18	16	50	10	94
447	11	4	29	4	48
448	18	10	47	12	87
449	35	19	114	14	182
450	13	6	40	3	62
451	37	17	90	18	162
452	9	3	33	0	45
453	28	15	63	12	118
454	56	20	130	15	221
455	8	4	18	2	32
456	27	5	87	2	121
457	18	14	47	9	88
458	9	12	35	10	66
459	30	18	96	14	158
461	15	15	63	12	105
462	18	22	68	14	122
463	9	10	28	5	52
464	10	4	24	2	40
465	12	12	31	8	63
466	14	20	72	14	120
467	18	13	61	14	106
Zone 4 Total	**831**	**499**	**2,285**	**388**	**4,003**

Special Hunts					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
931	20	5	24	4	53
932	3	1	6	4	14
933	0	1	5	0	6
934	0	0	4	1	5
935	0	0	1	2	3
936	0	0	0	1	1
Special Hunts Total	**23**	**7**	**40**	**12**	**82**

GRAND TOTAL	**2,387**	**1,409**	**5,813**	**1,173**	**10,782**

Table 19. Total All-Season Deer Harvest by Permit Area, 2006.

Zone 1					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
104	122	38	224	29	413
105	125	51	281	59	516
107	180	48	271	45	544
110	86	38	153	35	312
111	162	60	250	58	530
114	8	3	10	0	21
115	238	77	301	70	686
116	8	2	11	1	22
122	44	13	55	2	114
126	39	8	52	8	107
127	7	1	8	0	16
152	25	10	18	15	68
154	168	83	349	89	689
156	138	69	302	69	578
157	260	175	535	151	1,121
159	124	51	203	40	418
167	90	27	143	44	304
168	181	55	320	60	616
170	310	127	552	121	1,110
172	241	155	492	126	1,014
174	119	59	197	39	414
175	137	52	223	37	449
178	168	85	287	57	597
180	128	38	171	26	363
181	156	74	244	51	525
182	41	17	70	13	141
183	138	51	216	45	450
184	475	266	924	260	1,925
197	147	56	214	53	470
199	9	2	6	2	19
Zone 1 Total	**4,074**	**1,791**	**7,082**	**1,605**	**14,552**

Zone 3					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
337	98	29	105	25	257
338	59	20	72	10	161
339	49	10	46	9	114
341	109	31	133	23	296
342	117	34	135	31	317
343	132	52	256	36	476
344	74	22	82	15	193
345	89	32	127	29	277
346	140	51	209	39	439
347	130	43	274	43	490
348	132	38	192	38	400
349	200	69	293	38	600
Zone 3 Total	**1,329**	**431**	**1,924**	**336**	**4,020**

Zone 2					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
201	10	4	13	5	32
202	26	15	55	15	111
203	11	1	6	0	18
204	80	36	165	29	310
206	84	40	155	32	311
207	57	24	93	20	194
208	39	18	85	14	156
209	86	35	142	33	296
210	128	53	210	50	441
213	357	262	794	195	1,608
214	258	236	590	178	1,262
215	216	138	487	159	1,000
218	189	138	410	120	857
219	273	105	300	76	754
221	175	135	387	116	813
222	161	88	295	68	612
223	113	56	180	51	400
224	18	9	31	10	68
225	201	92	296	57	646
227	167	86	268	65	586
228	78	23	100	20	221
229	58	35	105	17	215
235	10	5	12	7	34
236	129	49	191	39	408
239	310	212	629	165	1,316
240	313	220	677	208	1,418
241	241	178	577	141	1,137
242	99	55	216	36	406
243	172	133	382	105	792
244	305	242	555	212	1,314
245	300	194	601	179	1,274
246	273	223	578	158	1,232
247	138	85	244	55	522
248	90	40	143	49	322
249	170	98	325	109	702
251	22	12	19	5	58
252	69	26	83	13	191
253	82	36	150	29	297
254	63	26	130	20	239
255	88	43	175	48	354
256	78	53	180	24	335
257	72	23	117	26	238
258	123	72	282	74	551
259	74	45	143	36	298
287	14	3	25	2	44
297	38	17	70	21	146
298	117	41	155	51	364
Zone 2 Total	**6,175**	**3,760**	**11,826**	**3,142**	**24,903**

Table 19. (Continued)

Zone 4					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
412	134	56	248	53	491
416	191	46	181	31	449
417	429	117	487	79	1,112
420	105	60	204	43	412
421	61	26	95	30	212
422	69	10	52	9	140
423	49	7	44	12	112
424	97	21	95	15	228
425	53	12	42	6	113
426	92	20	79	9	200
427	84	14	69	11	178
428	142	31	160	27	360
431	67	20	86	14	187
433	177	50	230	59	516
435	130	29	134	25	318
440	145	34	208	35	422
442	276	65	306	53	700
443	123	47	166	26	362
446	85	24	85	15	209
447	60	11	72	12	155
448	86	22	119	17	244
449	177	43	245	25	490
450	71	7	70	7	155
451	138	26	162	31	357
452	66	15	123	9	213
453	123	24	126	18	291
454	189	42	286	29	546
455	29	5	40	6	80
456	154	51	280	45	530
457	106	27	119	19	271
458	77	28	83	16	204
459	177	37	198	28	440
461	137	90	331	64	622
462	220	114	379	64	777
463	93	24	97	20	234
464	109	49	164	27	349
465	105	54	129	28	316
466	169	70	318	50	607
467	184	85	341	53	663
Zone 4 Total	**4,979**	**1,513**	**6,653**	**1,120**	**14,265**

Special Hunts					
Permit Area	**Adult Male**	**Fawn Male**	**Adult Female**	**Fawn Female**	**Total**
901	1	0	1	0	2
902	19	12	31	8	70
903	3	1	4	1	9
906	1	1	0	0	2
907	0	1	0	1	2
908	0	1	1	0	2
909	0	1	1	0	2
910	0	1	0	0	1
911	11	6	17	6	40
913	1	0	1	0	2
914	0	0	1	0	1
915	0	0	4	0	4
916	14	9	17	13	53
918	1	0	1	0	2
919	2	0	1	0	3
929	0	0	7	0	7
930	4	6	13	0	23
931	20	5	24	4	53
932	3	1	6	4	14
933	0	1	5	0	6
934	0	0	4	1	5
935	0	0	1	2	3
936	0	0	0	1	1
950	1	0	2	0	3
953	36	7	56	12	111
954	41	5	44	8	98
956	0	0	1	0	1
959	0	0	1	0	1
Special Hunts Total	**158**	**58**	**244**	**61**	**521**

GRAND TOTAL	**16,715**	**7,553**	**27,729**	**6,264**	**58,261**

Table 20. Total Deer Harvest by Permit Area, 2006.
Includes all license types, permits, and special hunts.

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
104	1,176	216	1,044	195	2,631
105	1,122	351	1,400	323	3,196
107	1,725	357	1,479	264	3,825
110	658	245	799	208	1,910
111	1,149	270	1,147	246	2,812
114	95	21	52	6	174
115	2,235	375	1,556	306	4,472
116	188	12	69	7	276
122	565	96	351	55	1,067
126	606	36	302	33	977
127	147	4	34	3	188
152	158	30	109	33	330
154	1,674	559	1,787	513	4,533
156	1,871	583	1,858	437	4,749
157	2,916	1,102	3,104	867	7,989
159	1,479	421	1,387	316	3,603
167	692	173	681	192	1,738
168	1,439	373	1,500	310	3,622
170	2,920	811	2,624	596	6,951
172	1,803	733	2,242	581	5,359
174	1,304	392	1,168	288	3,152
175	2,190	434	1,605	329	4,558
178	2,500	588	1,985	400	5,473
180	1,799	271	1,246	179	3,495
181	2,117	488	1,659	378	4,642
182	520	135	674	131	1,460
183	1,634	476	1,527	368	4,005
184	3,554	1,364	4,096	1,246	10,260
197	1,090	238	942	201	2,471
199	119	7	36	5	167
201	82	23	76	22	203
202	182	74	220	56	532
203	74	6	24	8	112
204	513	174	562	125	1,374
206	497	165	612	147	1,421
207	352	124	406	93	975
208	261	85	307	73	726
209	598	237	728	233	1,796
210	1,140	424	1,182	376	3,122
213	1,998	814	2,171	606	5,589
214	1,486	749	1,866	610	4,711
215	1,046	464	1,200	386	3,096
218	804	348	931	296	2,379
219	624	226	561	166	1,577
221	1,102	486	1,211	450	3,249
222	1,091	404	1,021	301	2,817
223	580	191	538	147	1,456
224	142	34	154	37	367
225	1,615	615	1,695	481	4,406

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
227	1,079	422	1,088	317	2,906
228	589	166	593	116	1,464
229	276	110	312	75	773
235	97	33	85	27	242
236	935	308	989	227	2,459
239	1,826	672	1,917	570	4,985
240	1,927	725	2,080	721	5,453
241	1,506	619	1,670	574	4,369
242	692	320	907	251	2,170
243	1,142	555	1,362	370	3,429
244	2,154	909	2,266	863	6,192
245	2,230	866	2,314	703	6,113
246	2,178	946	2,441	824	6,389
247	848	310	966	269	2,393
248	466	180	475	158	1,279
249	1,281	555	1,395	412	3,643
251	145	39	85	30	299
252	345	96	400	68	909
253	417	130	546	140	1,233
254	357	124	427	133	1,041
255	646	227	733	175	1,781
256	595	225	884	216	1,920
257	494	175	558	167	1,394
258	617	227	752	198	1,794
259	453	155	475	143	1,226
287	105	42	137	27	311
297	263	71	184	60	578
298	799	199	557	172	1,727
337	597	164	670	139	1,570
338	322	75	280	43	720
339	297	67	203	55	622
341	1,051	335	905	232	2,523
342	870	252	846	230	2,198
343	1,062	370	1,265	249	2,946
344	538	119	391	86	1,134
345	694	218	734	203	1,849
346	1,231	392	1,272	297	3,192
347	884	263	998	188	2,333

Table 20. (Continued).

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
348	1,006	274	1,126	239	2,645
349	1,771	504	1,918	442	4,635
412	493	139	518	127	1,277
416	566	101	376	58	1,101
417	1,122	244	905	166	2,437
420	339	126	405	102	972
421	222	51	196	56	525
422	221	25	114	18	378
423	158	20	102	23	303
424	292	55	200	39	586
425	161	30	98	21	310
426	256	45	175	27	503
427	265	26	150	22	463
428	346	71	316	67	800
431	204	35	160	30	429
433	463	105	429	114	1,111
435	459	60	319	56	894
440	445	89	418	92	1,044
442	724	136	553	107	1,520
443	326	95	321	62	804
446	249	46	206	41	542
447	233	45	170	29	477
448	332	57	290	47	726
449	505	83	493	53	1,134
450	217	20	138	10	385
451	418	67	324	62	871
452	301	49	290	37	677
453	341	54	261	32	688
454	579	98	549	67	1,293
455	56	14	62	14	146
456	492	111	528	82	1,213
457	326	56	279	46	707
458	342	60	261	48	711
459	507	91	411	74	1,083
461	454	161	616	129	1,360
462	591	221	690	128	1,630
463	271	63	219	41	594
464	282	87	302	54	725
465	266	87	285	56	694
466	536	152	606	112	1,406
467	571	180	754	123	1,628
901	3	3	4	2	12
902	62	49	116	47	274
903	7	2	11	4	24
904	2	1	5	0	8
905	0	0	3	0	3
906	7	2	7	2	18
907	0	3	1	1	5
908	0	4	8	3	15
909	0	5	4	2	11
910	0	3	5	5	13
911	18	30	47	21	116
912	1	0	0	0	1
913	7	3	9	3	22
914	0	0	5	1	6
915	0	1	6	2	9
916	31	22	42	27	122
917	0	1	1	1	3
918	1	0	4	2	7
919	8	2	5	2	17
920	0	2	4	3	9
921	11	25	36	21	93
922	9	9	22	9	49
923	19	11	30	16	76
924	0	3	8	0	11
925	0	3	2	1	6
926	11	1	22	8	42
927	6	3	9	5	23
928	0	4	16	4	24
929	0	1	11	2	14
930	4	9	25	1	39
931	26	7	35	7	75
932	4	3	12	5	24
933	0	5	14	3	22
934	0	3	6	4	13
935	0	1	4	5	10
936	0	0	1	1	2
950	5	2	6	0	13
953	81	28	133	31	273
954	86	26	107	27	246
955	0	1	1	0	2
956	4	0	5	1	10
957	2	1	3	2	8
958	1	2	1	0	4
959	4	0	11	2	17
960	1	1	4	2	8
TOTAL	**105,769**	**32,780**	**105,434**	**26,795**	**270,778**

Table 21. Estimated firearm hunter numbers, density, and harvest by permit area, 2006.

Permit Area	Firearm Hunters	Area Size (sq mi)	Hunters/ mile^2	Harvest/ mile^2
104	4,589	2,078	2.2	1.2
105	3,867	766	5.0	3.8
107	7,183	1,895	3.8	1.9
110	2,509	300	8.4	6.0
111	4,481	1,708	2.6	1.5
114	163	123	1.3	1.2
115	8,588	1,872	4.6	2.2
116	651	1,158	0.6	0.2
122	1,991	620	3.2	1.6
126	1,899	940	2.0	1.0
127	514	562	0.9	0.3
152	1,023	61	16.8	4.9
154	9,111	760	12.0	5.5
156	8,681	825	10.5	5.3
157	12,619	889	14.2	8.2
159	7,243	568	12.8	5.7
167	3,674	432	8.5	3.9
168	7,586	723	10.5	4.6
170	12,783	1,315	9.7	4.9
172	9,357	451	20.7	11.0
174	6,571	835	7.9	3.5
175	8,503	1,276	6.7	3.4
178	9,014	1,267	7.1	4.0
180	6,032	982	6.1	3.2
181	6,450	708	9.1	5.8
182	1,494	269	5.6	2.5
183	7,352	662	11.1	5.6
184	13,738	1,231	11.2	7.5
197	4,663	974	4.8	2.4
199	458	148	3.1	1.0
201	303	161	1.9	1.2
202	904	157	5.8	3.1
203	270	117	2.3	0.9
204	2,420	718	3.4	1.7
206	1,858	471	3.9	2.7
207	1,449	300	4.8	2.9
208	1,255	443	2.8	1.5
209	2,274	639	3.6	2.6
210	4,041	616	6.6	4.8
213	9,114	1,058	8.6	4.5
214	6,679	557	12.0	7.6
215	5,992	701	8.5	3.8
218	4,900	885	5.5	2.2

Permit Area	Firearm Hunters	Area Size (sq mi)	Hunters/ mile^2	Harvest/ mile^2
219	2,938	393	7.5	3.1
221	4,609	642	7.2	4.4
222	4,231	413	10.2	5.9
223	2,537	376	6.7	2.9
224	761	48	15.8	6.8
225	6,367	619	10.3	6.2
227	4,133	472	8.8	4.5
228	1,087	613	1.8	0.9
229	1,279	288	4.4	1.8
228	1,087	613	1.8	0.9
229	1,279	288	4.4	1.8
235	557	33	16.9	6.1
236	3,292	373	8.8	4.2
239	7,283	926	7.9	4.9
240	6,833	642	10.6	7.6
241	5,206	417	12.5	9.3
242	2,565	215	11.9	7.5
243	5,030	314	16.0	9.7
244	7,795	586	13.3	9.5
245	9,041	583	15.5	9.3
246	9,457	772	12.3	7.6
247	3,615	230	15.7	8.7
248	1,967	212	9.3	4.9
249	5,332	501	10.6	6.6
251	594	55	10.8	5.1
252	927	1,040	0.9	0.7
253	1,518	1,023	1.5	1.0
254	973	396	2.5	2.3
255	2,278	631	3.6	2.5
256	2,393	654	3.7	2.7
257	1,739	412	4.2	3.1
258	2,345	618	3.8	2.5
259	1,674	494	3.4	2.3
287	612	46	13.3	6.6
297	1,222	439	2.8	1.2
298	3,201	619	5.2	2.6
337	1,286	1,024	1.3	0.7
338	1,672	452	3.7	1.1
339	1,578	394	4.0	1.1
341	4,628	611	7.6	3.1
342	3,693	350	10.6	4.7
343	4,271	663	6.4	3.0
344	2,688	190	14.1	4.9

Table 21 (Continued).

Permit Area	Firearm Hunters	Area Size (sq mi)	Hunters/ mile^2	Harvest/ mile^2
345	2,909	326	8.9	4.4
346	4,055	319	12.7	8.0
347	3,286	434	7.6	4.1
348	4,017	331	12.1	6.5
349	5,898	492	12.0	7.7
412	2,774	575	4.8	1.9
416	3,134	543	5.8	1.6
417	5,993	814	7.4	2.2
420	1,517	651	2.3	1.2
421	1,159	749	1.5	0.6
422	985	634	1.6	0.5
423	1,031	531	1.9	0.5
424	1,895	766	2.5	0.6
425	890	779	1.1	0.3
426	1,390	614	2.3	0.6
427	1,482	837	1.8	0.4
428	2,070	549	3.8	1.0
431	929	359	2.6	0.7
433	2,526	402	6.3	1.9
435	2,389	576	4.1	1.2
440	2,320	662	3.5	1.2
442	3,734	807	4.6	1.2
443	1,711	386	4.4	1.4
446	1,101	344	3.2	1.2
447	1,415	674	2.1	0.6
448	1,584	448	3.5	1.3
449	2,102	626	3.4	1.3
450	984	816	1.2	0.3
451	1,443	686	2.1	0.9
452	1,094	637	1.7	0.9
453	1,170	729	1.6	0.7
454	2,234	840	2.7	1.1
455	276	96	2.9	1.0
456	1,822	712	2.6	1.3
457	1,699	667	2.5	0.8
458	1,361	715	1.9	0.8
459	2,217	975	2.3	0.8
461	2,668	480	5.6	2.3
462	2,690	506	5.3	2.5
463	1,361	452	3.0	1.1
464	1,282	377	3.4	1.6
465	1,051	389	2.7	1.3
466	2,611	930	2.8	1.2
467	2,081	774	2.7	1.6
Total	441,798	79,009	5.6	2.9

Table 22. Antlerless Lottery Distribution Report, 2006.

Permit Area Numbers	Preference Level	Applications					
		Total	Rejected	Unsuccessful	Winners	Permits Available	% Under-Subscribed
116	1 2 3 **181**	107 73 1 **181**	6 1 0 **7**	6 0 0 **6**	101 73 1 **175**	**175**	**0.0 %**
127	1 2 3 **106**	80 25 1 **106**	2 0 1 **3**	0 0 0 **0**	80 25 1 **106**	**150**	**29.3 %**
152	1 2 3 4 5 **287**	321 20 1 1 1 **287**	8 6 1 1 0 **16**	0 0 0 0 0 **0**	321 20 1 1 1 **343**	**350**	**2.0 %**
199	1 2 3 **126**	121 4 1 **126**	3 1 1 **5**	0 0 0 **0**	121 4 1 **126**	**150**	**16.0%**
203	1 2 9 (military) **84**	81 2 1 **84**	5 3 0 **8**	0 0 0 **0**	81 2 1 **84**	**150**	**44.0%**
338A	1 2 3 **185**	166 17 2 **185**	8 3 1 **12**	35 0 0 **35**	131 17 2 **150**	**150**	**0.0%**
339A	1 2 3 **149**	147 2 0 **149**	6 2 1 **9**	0 0 0 **0**	147 2 0 **149**	**150**	**0.7%**
341A	1 2 3 4 **464**	457 7 0 0 **464**	21 3 1 2 **27**	0 0 0 0 **0**	457 7 0 0 **464**	**425**	**-9.2%**
342A	1 2 3 4 **382**	375 3 2 2 **382**	15 5 2 2 **24**	82 0 0 0 **82**	293 3 2 2 **300**	**300**	**0.0%**
344A	1 2 3 **444**	432 10 2 **444**	22 5 5 **32**	44 0 0 **44**	38 10 2 **400**	**400**	**0.0%**
344B	1 2 3 9 (military) **608**	600 6 1 1 **608**	25 12 2 0 **39**	0 0 0 0 **0**	600 6 1 1 **608**	**800**	**24.0%**
416A	1 2 3 **610**	586 21 3 **610**	32 2 0 **34**	0 0 0 **0**	586 21 3 **607**	**750**	**19.1%**
416B	1 2 3 4 **319**	311 7 1 0 **319**	20 1 0 1 **22**	228 0 0 0 **228**	83 7 1 0 **91**	**700**	**87.0%**

Table 22. (Continued).

Permit Area Numbers	Preference Level	Applications					
		Total	Rejected	Unsuccessful	Winners	Permits Available	% Under-Subscribed
417A	1 2 3 4 **1,328**	1,287 36 4 1 **1,328**	74 16 3 0 **93**	228 0 0 0 **228**	1,059 36 4 1 **1,100**	**1,100**	**0.0%**
417B	1 2 **737**	731 6 **737**	41 6 **47**	0 0 **0**	731 6 **737**	**1,100**	**33.0%**
422A	1 2 **201**	199 2 **201**	9 3 **12**	101 0 **101**	98 2 **100**	**100**	**0.0%**
422B	1 2 **201**	199 2 **201**	9 3 **12**	101 0 **101**	98 2 **100**	**100**	**0.0%**
423A	1 2 **179**	174 5 **179**	11 1 **12**	29 0 **29**	145 5 **150**	**150**	**0.0%**
423B	1 2 **88**	87 1 **88**	4 0 **4**	0 0 **0**	87 1 **88**	**150**	**41.3%**
424A	1 2 3 4 5 6 9 (military) **481**	350 124 3 1 1 1 1 **481**	13 6 1 1 0 0 0 **21**	331 0 0 0 0 0 0 **331**	19 124 3 1 1 1 1 **150**	**150**	**0.0%**
424B	1 2 3 4 5 6 **314**	286 25 1 1 0 1 **314**	7 3 0 1 2 0 **13**	164 0 0 0 0 0 **164**	122 25 1 1 0 1 **150**	**150**	**0.0%**
425A	1 2 3 4 **161**	140 21 0 0 **161**	3 2 1 1 **7**	86 0 0 0 **86**	54 21 0 0 **75**	**75**	**0.0%**
425B	1 2 6 **121**	114 6 1 **121**	1 0 0 **1**	46 0 0 **46**	68 6 1 **75**	**75**	**0.0%**
426A	1 2 3 4 5 **309**	295 9 2 2 1 **309**	8 5 3 0 1 **17**	84 0 0 0 0 **84**	211 9 2 2 1 **225**	**225**	**0.0%**
426B	1 2 3 **206**	196 9 1 **206**	5 3 1 **9**	31 0 0 **31**	165 9 1 **175**	**175**	**0.0%**

Table 22. (Continued).

Permit Area Numbers	Preference Level	Applications					
		Total	Rejected	Unsuccessful	Winners	Permits Available	% Under-Subscribed
427A	1 2 3 4 5 6 **351**	149 109 90 1 1 1 **28**	17 4 4 2 1 0 **301**	149 109 43 0 0 0 **50**	0 0 47 1 1	**50**	**0.0 %**
427B	1 2 3 4 **196**	124 64 7 1 **9**	4 4 1 0 **146**	124 22 0 0 **50**	0 42 7 1	**50**	**0.0 %**
428A	1 2 3 4 **402**	362 34 6 0 **21**	11 5 2 3 **0**	0 0 0 0 **402**	362 34 6 0	**500**	**0.0 %**
428B	1 2 3 4 **300**	280 16 2 2 **17**	12 3 1 1 **0**	0 0 0 0 **300**	280 16 2 2	**500**	**40.0 %**
431A	1 2 3 4 **196**	89 85 22 0 **7**	6 0 0 1 **146**	89 57 0 0 **50**	0 28 22 0	**50**	**0.0 %**
431B	1 2 **138**	73 65 **7**	4 3 **88**	73 15 **50**	0 50	**50**	**0.0 %**
433A	1 2 3 4 5 **658**	508 143 4 2 1 **33**	19 5 6 1 2 **258**	258 0 0 0 0 **400**	250 143 4 2 1	**400**	**0.0%**
433B	1 2 3 4 5 6 **399**	358 37 1 1 1 1 **19**	9 6 1 3 0 0 **0**	0 0 0 0 0 0 **399**	358 37 1 1 1 1	**400**	**0.2%**
435A	1 2 3 4 5 **590**	489 99 2 0 0 **48**	21 14 7 5 1 **290**	290 0 0 0 0 **300**	199 99 2 0 0	**300**	**0.0 %**
435B	1 2 3 4 **342**	323 17 0 2 **16**	10 2 2 2 **42**	42 0 0 0 **300**	281 17 0 2	**300**	**0.0 %**
440A	1 2 3 4 5 **726**	481 236 7 1 1 **33**	20 5 5 3 0 **276**	276 0 0 0 0 **450**	205 236 7 1 1	**450**	**0.0 %**

Table 22. (Continued).

Permit Area Numbers	Preference Level	Applications					
		Total	Rejected	Unsuccessful	Winners	Permits Available	% Under-Subscribed
440B	1 2 3 4 **271**	241 27 2 1 **271**	4 6 1 1 **12**	0 0 0 0 **0**	241 27 2 1 **271**	**300**	**10.0 %**
442A	1 2 3 4 5 6 **1,029**	687 321 17 1 2 1 **48**	27 12 6 2 1 0 **479**	479 0 0 0 0 0 **550**	208 321 17 1 2 1	**550**	**0.0%**
442B	1 2 3 5 **502**	441 57 3 1 **41**	23 13 5 0 **0**	0 0 0 0 **502**	441 57 3 1	**550**	**8.7%**
443A	1 2 3 **449**	339 107 3 **20**	11 7 2 **174**	174 0 0 **275**	165 107 3	**275**	**0.0%**
443B	1 2 3 4 6 **219**	199 18 1 0 1 **16**	8 1 6 1 0 **0**	0 0 0 0 0 **218**	199 18 1 0 1	**275**	**20.7 %**
446A	1 2 3 4 5 **251**	187 62 1 0 1 **23**	12 7 2 2 0 **101**	101 0 0 0 0 **150**	86 62 1 0 1	**150**	**0.0 %**
446B	1 2 3 5 **199**	170 27 2 0 **10**	5 3 1 1 **49**	49 0 0 0 **150**	121 27 2 0	**150**	**0.0 %**
447A	1 2 3 4 **302**	222 79 0 1 **20**	11 3 5 1 **152**	152 0 0 0 **150**	70 79 0 1	**150**	**0.0 %**
447B	1 2 3 5 **160**	147 11 1 1 **5**	3 1 1 0 **10**	10 0 0 0 **150**	137 11 1 1	**150**	**0.0 %**
448A	1 2 3 4 5 **442**	431 8 2 1 0 **24**	13 6 3 1 1 **17**	17 0 0 0 0 **425**	414 8 2 1 0	**425**	**0.0 %**
448B	1 2 3 5 **163**	155 6 2 0 **8**	5 2 0 1 **13**	13 0 0 0 **150**	142 6 2 0	**150**	**0.0 %**

Table 22. (Continued).

Permit Area Numbers	Preference Level	Applications					
		Total	Rejected	Unsuccessful	Winners	Permits Available	% Under-Subscribed
449A	1 2 3 4 5 6 **595**	567 17 6 3 1 1 **595**	26 17 4 3 0 0 **50**	95 0 0 0 0 0 **95**	472 17 6 3 1 1 **500**	**500**	**0.0 %**
449B	1 2 3 6 **248**	243 2 2 1 **248**	10 5 0 0 **15**	23 0 0 0 **23**	220 2 2 1 **225**	**225**	**0.0 %**
450A	1 2 3 4 9 **245**	231 9 3 0 2 **245**	11 9 0 3 0 **23**	195 0 0 0 0 **195**	36 9 3 0 2 **50**	**50**	**0.0 %**
450B	1 2 **121**	118 3 **121**	2 2 **4**	46 0 **46**	72 3 **75**	**75**	**0.0 %**
451A	1 2 3 4 5 **231**	222 7 1 1 0 **231**	5 4 2 1 1 **13**	0 0 0 0 0 **0**	222 7 1 1 0 **231**	**250**	**7.6 %**
451B	1 2 4 6 **178**	171 5 2 0 **178**	8 2 3 1 **14**	0 0 0 0 **0**	171 5 2 0 **178**	**225**	**20.9 %**
453A	1 2 3 4 **264**	255 7 1 1 **264**	6 4 7 1 **18**	14 0 0 0 **14**	241 7 1 1 **250**	**250**	**0.0 %**
453B	1 2 **116**	115 1 **116**	3 1 **4**	0 0 **0**	115 1 **116**	**150**	**22.7 %**
454A	1 2 3 4 5 9 (military) **495**	478 12 3 0 1 1 **495**	14 9 3 3 0 0 **29**	0 0 0 0 0 0 **0**	478 12 3 0 1 1 **495**	**500**	**1.0 %**
454B	1 2 3 **343**	338 4 1 **343**	5 3 3 **11**	18 0 0 **18**	320 4 1 **325**	**325**	**0.0 %**
455A	1 2 3 **62**	56 6 0 **62**	0 0 2 **2**	12 0 0 **12**	44 6 0 **50**	**50**	**0.0 %**
455B	1 2 **56**	53 3 **56**	0 1 **1**	6 0 **6**	47 3 **50**	**50**	**0.0 %**
457A	1 2 3 4 **233**	213 16 3 1 **233**	2 4 3 1 **10**	33 0 0 0 **33**	180 16 3 1 **200**	**200**	**0.0 %**

Table 22. (Continued).

Permit Area Numbers	Preference Level	Applications		Unsuccessful	Winners	Permits Available	% Under-Subscribed
		Total	**Rejected**				
457B	1	213	2	33	180	**200**	**0.0 %**
	2	16	4	0	16		
	3	3	3	0	3		
	4	1	1	0	1		
		233	**10**	**33**	**200**		
458A	1	249	4	0	249	**400**	**34.3 %**
	2	14	6	0	14		
	3	0	3	0	0		
	4	0	2	0	0		
		263	**15**	**0**	**263**		
458B	1	232	6	65	167	**200**	**0.0 %**
	2	26	2	0	26		
	3	4	1	0	4		
	4	2	0	0	2		
	5	1	1	0	1		
		265	**10**	**65**	**200**		
459A	1	438	12	253	185	**200**	**0.0 %**
	2	13	13	0	13		
	3	0	4	0	0		
	4	1	0	0	1		
	5	1	0	0	1		
		453	**29**	**253**	**200**		
459B	1	325	8	126	199	**200**	**0.0 %**
	2	0	7	0	0		
	3	1	2	0	1		
	4	0	0	0	0		
		326	**17**	**126**	**200**		
463A	1	326	8	0	326	**350**	**3.1 %**
	2	10	7	0	10		
	3	2	2	0	2		
	5	1	0	0	1		
		339	**17**	**0**	**339**		
463B	1	193	5	0	193	**350**	**43.7 %**
	2	4	2	0	4		
	3	0	1	0	0		
		197	**8**	**0**	**197**		
TOTAL		**21,680**	**1,244**	**4,911**	**16,764**	**19,125**	

Table 23. 2006 Special Permit Areas for Firearms Hunters.

Permit Area Number	Preference Level	Applications			Winners	Permits Available	Bonus Permits
		Total	Rejected	Unsuccessful			
901 - Rice Lake Nat. Wildlife Refuge	1 2 3 **85**	79 5 1 **85**	0 0 0 **0**	0 0 0 **0**	79 5 1 **85**	**100**	**No**
902 - St. Croix State Park	1 2 **695**	624 71 **695**	0 0 **0**	144 0 **144**	480 71 **551**	**550**	**Yes**
903 - Savanna Portage State Park	1 2 **124**	117 7 **124**	0 0 **0**	69 0 **69**	48 7 **55**	**55**	**Yes**
904 - Gooseberry Falls State Park	1 2 3 **22**	20 1 1 **22**	0 0 0 **0**	0 0 0 **0**	20 1 1 **22**	**30**	**Yes**
905 - Split Rock Lighthouse State Park	1 2 **29**	28 1 **29**	0 0 **0**	0 0 **0**	28 1 **29**	**30**	**Yes**
906 - Tettegouche State Park	1 2 **61**	60 1 **61**	0 0 **0**	0 0 **0**	60 1 **61**	**125**	**Yes**
907 - Scenic State Park	1	33 **33**	0 **0**	1 **1**	32 **32**	**30**	**Yes**
908 - Hayes Lake State Park	1	21 **21**	0 **0**	0 **0**	21 **21**	**60**	**Yes**
909 - Lake Bemidji State Park	1	27 **27**	0 **0**	0 **0**	27 **27**	**35**	**Yes**
910 - Zippel Bay State Park	1	44 **44**	0 **0**	0 **0**	44 **44**	**55**	**Yes**
911 - Wild River State Park	1 2 3 **322**	246 75 1 **322**	0 0 0 **0**	171 0 0 **171**	75 75 1 **151**	**150**	**Yes**
912 - Old Mill State Park	1	2 **2**	0 **0**	0 **0**	2 **2**	**7**	**Yes**
913 -William O'Brien State Park	1 2 **108**	8 19 **108**	0 0 **0**	43 0 **43**	46 19 **65**	**65**	**Yes**
914 - Lake Elmo Park Reserve	1	9 **9**	0 **0**	0 **0**	9 **9**	**25**	**Yes**

Table 23. (Continued).

Permit Area Number	Preference Level	Applications			Permits	Bonus	
		Total	Rejected	Unsuccessful	Winners	Available	Permits
915 – Buffalo River State Park	1 2 **19**	18 1 **19**	0 0 **0**	7 0 **7**	11 1 **12**	**12**	**Yes**
916 – Maplewood State Park	1 2 **367**	232 135 **367**	0 0 **0**	232 35 **267**	0 100 **100**	**100**	**Yes**
917 – Rydell National Wildlife Refuge	1 2 **7**	3 4 **7**	0 0 **0**	1 0 **1**	2 4 **6**	**5**	**Yes**
918 – Lake Alexander SNA	1 **38**	38 **38**	0 **0**	0 **0**	38 **38**	**40**	**Yes**
919 – Beaver Creek Valley State Park	1 2 **46**	41 5 **46**	0 0 **0**	26 0 **26**	15 5 **20**	**20**	**Yes**
920 – Zumbro Falls SNA-3A	1 **13**	13 **13**	0 **0**	0 **0**	13 **13**	**12**	**Yes**
921 – Forestville/Mystery Cave State Park	1 2 **127**	121 6 **127**	0 0 **0**	17 0 **17**	104 6 **110**	**110**	**Yes**
922 – Frontenac State Park	1 2 **82**	75 7 **82**	0 0 **0**	32 0 **32**	43 7 **50**	**50**	**Yes**
923 – Great River Bluffs State Park	1 1 1 **152**	15 1 1 **152**	0 0 0 **0**	51 0 0 **51**	99 1 1 **101**	**100**	**Yes**
924 - Zumbro Falls SNA-3B	1 2 **12**	8 4 **12**	0 0 **0**	0 0 **0**	8 4 **12**	**12**	**Yes**
925 – Kellog-Weaver Dunes SNA	1 **11**	11 **11**	0 **0**	0 **0**	11 **11**	**15**	**Yes**
926 – Elm Creek Park Reserve	1 2 **171**	149 22 **171**	0 0 **0**	25 0 **25**	124 22 **146**	**145**	**Yes**
927 – Lake Rebecca Park Reserve	1 2 **40**	36 4 **40**	0 0 **0**	0 0 **0**	36 4 **40**	**75**	**Yes**
928 – Whitewater State Game Refuge	1 **46**	46 **46**	0 **0**	0 **0**	46 **46**	**75**	**No**
929 – Glacial Lakes State Park	1 2 **46**	39 7 **46**	0 0 **0**	16 0 **16**	23 7 **30**	**30**	**Yes**
930 – Lake Louise State Park	1 2 3 **75**	65 8 2 **75**	0 0 0 **0**	50 0 0 **50**	15 8 2 **25**	**25**	**Yes**
TOTAL		**2,788**	**0**	**920**	**1,868**	**2,143**	

Table 24. 2006 Special Permit Areas for Muzzleloader Hunters.

Permit Area Number	Preference Level	Applications			Winners	Permits Available	Bonus Permits
		Total	Rejected	Unsuccessful			
931 - Jay Cooke SP	1	171	0	131	40	120	Yes (4)
	2	73	0	0	73		
	3	7	0	0	7		
		251	**0**	**131**	**120**		
932 - Crow Wing SP	1	145	0	145	0	40	Yes (4)
	2	81	0	56	25		
	3	15	0	0	15		
		241	**0**	**201**	**40**		
933 - Lake Shetek SP	1	53	0	53	0	25	Yes (1)
	2	23	0	1	22		
	3	3	0	0	3		
		79	**0**	**54**	**25**		
934 - Sibley SP	1	79	0	53	26	40	No
	2	15	0	0	15		
	3	1	0	0	1		
		95	**0**	**5**	**42**		
935 - Rice Lake SP	1	47	0	47	0	15	Yes (1)
	2	21	0	9	12		
	3	3	0	0	3		
		71	**0**	**56**	**15**		
936 - Interstate SP	1	13	0	10	3	10	Yes (4)
	2	8	0	0	8		
		21	**0**	**10**	**11**		
TOTAL		**758**	**0**	**505**	**253**	**250**	
Grand Total		**25,226**	**1,244**	**6,336**	**18,885**	**21,518**	

2006 Minnesota Bear Harvest Report

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INTRODUCTION

In 1982, out of concern that the Minnesota bear population was being overharvested, a quota on hunting licenses was implemented. Eleven bear management units (BMUs) have been designated (Figure 1), with separate quotas for each. Outside the primary bear range, where bear depredation to crops is a primary concern, license sales are unlimited (no-quota area). In recent years, hunters in this area could harvest two bears, and beginning in 2005 hunters could purchase both a quota and no-quota license. In all areas, hunters may purchase licenses either before or during the bear season, and in all areas the season runs from September 1 through mid-October. About 80% of hunters use bait. This report summarizes status and trends in harvests and population structure.

METHODS

Successful hunters must register their bears at designated registration stations. Harvest data are a simple tally of these registrations, partially corrected for non-compliance (and in some cases, lost registration data). Hunters also were required to submit a tooth from harvested bears (compliance ≈ 70%) from which an age estimate was obtained. Bear food abundance, which impacts hunting success, was measured qualitatively by DNR and other field personnel.

RESULTS

The number of permits that were made available to hunters steadily increased through the 1980s and 1990s (Table 1) in response to increasing bear numbers and nuisance complaints. Permit availability was capped at just over 20,000 from 1999–2003, whereas during this period permit applications declined. Concomitantly, since 2001, a diminishing proportion of permittees bought licenses, resulting in 7 of 11 BMUs being undersubscribed by 2003. Permits were reduced in 2004 and again in 2005 and 2006 (Table 2) in accordance with the diminishing level of interest and hunter complaints of overcrowding in some BMUs, but 6 BMUs remained undersubscribed (Table 3). Harvests, while variable due to natural food abundance, showed no trend over the past 10 years, averaging about 3,400 bears, with hunting success averaging 26%. Harvests during the past 4 years have been remarkably similar (3,300–3,600), and hunting success has been steady at 26% (Table 1). Harvest sex ratios, uncorrected for misreporting (Table 1, footnote e) averaged 58% male, but varied by BMU (Table 4). In 2006, harvests and hunting success were below average in the northwestern part of the state (BMUs 11, 12, 13, see Figure 1; Tables 4 & 5), whereas the southeastern portion of the bear range had a record high harvest (no-quota BMU 52). As typical for a year with overall average food abundance, ~70% of the harvest occurred during the first week of the season (Table 6).

The number of bears killed by hunters each year is largely explained by 2 factors: fall food abundance and hunter numbers (Figure 2). Bear numbers, which increased dramatically until about 1997 but have since stabilized at 20–30,000, are no longer an important factor in year-to-year variations in harvest. Nevertheless, diminishing median age, caused by an increasing proportion of yearlings in the harvest (Figures 3 & 4), indicate changes in the composition of the living population. In 2006 a slight dip in the proportion of harvested yearlings may suggest a change in this long-term trend.

DISCUSSION

Interest in hunting bears seems to have waned as permit availability peaked, corresponding with complaints by hunters of overcrowding and thus less hunting enjoyment. Another contributing factor may have been the availability of electronic licenses, enabling hunters to delay purchase until they assessed bear visitation to their baits and hence probable hunting success.

Despite some concern over this trend, harvests have remained sufficiently high to stabilize the bear population at an acceptable level (nuisance complaints have remained low). A declining harvest age structure, however, suggests that despite relative stability in overall population size, population composition continues to change, which may inevitably lead to unpredictable changes in bear numbers. Continued monitoring of this population and the factors impacting it are hence warranted.

Table 1. Bear permits, licenses, hunters, harvests, and success rates, 1986–2006.

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Permit applications	20694	19687	25879	24096	24861	25890	26428	27365	30127	29922	30405	27353	30245	29384	29275	26824	21886	16431	16466	16153	15725
Permits available	4730	4810	5310	5520	6370	7140	7920	8630	9400	11950	12030	11370	18210	20840	20710	20710	20610	20110	16450	15950	14850
Licenses purchased (total) [a]	4188	6054	5643	5901	7094	7757	8485	9224	9826	12448	12414	11440	16737	18355	19304	16510	14639	14409	13669	13199	13164
Quota area [a]	4188	4213	4297	4628	5568	6257	6845	7528	8125	10304	10592	9655	14941	16563	17021	13632	12350	9833	10063	9340	9169
Quota surplus/military [a]																235	209	2554	1356	1591	1561
No-quota area [a]		1841	1346	1273	1526	1500	1640	1696	1701	2144	1822	1785	1796	1792	2283	2643	2080	2022	2238	2268	2434
% Licenses bought [b]																					
Of permits available [b]	88.5	87.6	80.9	83.8	87.4	87.6	86.4	87.2	86.4	86.2	88.0	84.9	82.0	79.5	82.2	67.0	60.9	61.6	69.4	68.5	72.3
Of permits issued [b]													84.4	87.2	83.9	69.8	66.3	65.7	68.3	67.1	68.9
Estimated no. hunters [c]	3900	5600	5100	5500	6600	7200	7900	8600	9100	11600	11500	10300	14500	15900	16800	15500	13700	13500	12800	12400	12400
Harvest	1438	1577	1509	1930	2381	2143	3175	3003	2329	4956	1874	3212	4110	3620	3898	4936	1915	3598	3391	3340[d]	3290[d]
Harvest sex ratio (%M) [e]	59	60	58	57	52	59	50	56	62	47	62	55	55	53	58	56	61	58	57	59	58
Success rate (%) [f]																					
Total harvest/hunters	37	28	30	35	36	30	40	35	26	43	16	31	28	23	23	29	14	26	26	26	26
Quota harvest/licenses		33	28	36	35	30	41	34	26	42	15	29	25	20	20	28	14	25	26	25	25

[a] Quota area established in 1982. No-quota area established in 1987. Surplus licenses from undersubscribed quota areas sold beginning in 2000; originally open only to unsuccessful permit applicants, but beginning in 2003, open to all. Total licenses = quota + quota surplus + no-quota + military (no permit needed).

[b] Quota licenses bought (including surplus)/permits available, or licenses bought (prior to surplus)/permits issued (permits issued more relevant for years when some areas were undersubscribed; see Table 3).

[c] Number of licensed hunters x percent of license-holders hunting. Percent hunting is based on data from bear hunter surveys conducted during 1981–91, 1998 (86.8%), and 2001(93.9%).

[d] Harvest estimated from tallied registration + lost registration data (ascertained from tooth envelopes received without matching registration data)..

[e] Sex ratio as reported by hunters; hunters classify about 10% of female bears as males, so the actual harvest has a lower %M than shown here. In good food years, the harvest is more male-biased.

[f] Success rates in 2001–2004 were calculated as number of successful hunters/total hunters, rather than bears killed/total hunters, because hunters could take 2 bears. This was complicated even more in 2005 and 2006 because the total harvest was estimated (footnote d), and hunters could take 1 bear in the quota area plus 2 bears in the no-quota area. From the registration tally and tooth envelopes received in 2006, 50 hunters took more than 1 bear (45 took 2 bears on NQ license, 2 hunters took 1 quota and 1 NQ bear, and 3 hunters took 2 bears on a quota license [illegally]): thus, there were 3290-50 = 3240 successful hunters.

Table 2. Number of bear hunting permits available per year, 2002–2006 (aligned with permit applications in Table 3 below; highlighted numbers show drop from previous year).

BMU	2006	2005	2004	2003	2002
12	550	550	700	700	700
13	800	900	900	1100	1100
22	150	150	150	250	250
24	1000	1200	1200	1500	1500
25	1900	1900	1900	2400	2400
26	1500	1500	1500	1500	1500
31	2100	2100	2100	2660	2660
41	450	450	500	500	500
44	1700	1700	2000	2500	3000
45	1200	1500	1500	2000	2000
51	3500	4000	4000	5000	5000
Total	14850	15950	16450	20110	20610

Table 3. Number of bear hunting license applicants, and number and percent of available surplus licenses bought, 2002–2006[a].

BMU	2006		2005		2004		2003		2002	
	Apps	Surplus bought	Apps	Surplus bought	Apps	Surplus bought	Apps	Surplus bought	Apps	Surplus bought
12	1005		864		808		837		1061	
13	680	120 100%	714	186 100%	670	129 56%	668	167 39%	831	41 18%
22	92	58 100%	65	46 54%	73	47 61%	88	26 16%	124	5 4%
24	624	367 98%	749	270 60%	766	259 60%	756	193 26%	979	40 8%
25	1789	112 100%	1923		1793	111 100%	1716	317 46%	1985	41 11%
26	1915		1997		2110		2280		2873	
31	2290		2097	4 100%	2006	92 100%	1996	412 62%	2503	26 23%
41	683		653		601		688		810	
44	2838		2884		2934		2855		4043	
45	840	360 100%	927	346 60%	1092	332 81%	1069	461 50%	1535	56 14%
51	2969	531 100%	3276	726 100%	3613	386 100%	3467	978 64%	5141	
None	0		0		0		2		1	
Total	15725	1548 ~100%	16149	1578 78%	16466	1356 78%	16431	2554 50%	21886	209 12%

[a] Surplus licenses available beginning in 2001, but restricted to permit applicants in 2001 & 2002.

Undersubscribed Nearly undersubscribed

Table 4. Minnesota bear harvest tally[a] for 2006 by Bear Management Unit (BMU) and sex compared to harvests during 2001-2005 and record high harvests.

	2006											
BMU	M	(%M)	F	U	Total	**2005**	**2004**	**2003**	**2002**	**2001**	**5 year mean**	**Record high harvest** (yr)
Quota												
12	48	(69)	22	0	70	165	165	174	104	263	174	263 (01)
13	98	(65)	53	0	151	205	197	185	116	241	189	258 (95)
22	6	(40)	9	0	15	8	10	3	7	6	7	41 (89)
24	102	(53)	92	0	194	144	212	163	101	273	179	288 (95)
25	196	(47)	225	0	421	404	546	510	328	584	474	584 (01)
26	189	(60)	124	1	314	285	320	303	171	397	295	513 (95)
31	320	(66)	162	0	482	445	484	436	301	697	473	697 (01)
41	27	(68)	13	0	40	104	83	100	51	201	108	201 (01)
44	120	(62)	72	0	192	273	283	444	183	553	347	643 (95)
45	60	(51)	57	1	118	107	118	143	36	178	116	178 (01)
51	411	(57)	308	2	721	505	544	667	300	895	582	895 (01)
Total	1577	(58)	1137	4	2718	2759[b]	2962	3128	1698	4288	2967	4288 (01)
No Quota[c]												
11	87	(72)	33	0	120	335	177	200	112	321	229	351 (05)
52	216	(54)	183	1	400[d]	223	252	270	105	327	235	382 (93)
Total	303	(58)	216	1	520	581[b]	429	470	217	648	469	678 (95)
State	1880	(58)	1353	5	**3290**[b]	3340[b]	3391	3598	1915	4936	3436	4956 (95)

[a] Harvest data were obtained from registration slips electronic registration, and tooth envelopes. The following table shows the number of tooth envelopes that had no corresponding registration slip or e-registration.

Year	Quota area	No-quota area
2001	56	7
2002	46	7
2003	84	13
2004	96	39
2005	179	31
2006	63	15

[b] The estimated registered harvest, including those in which registration data were lost and no tooth envelope was received. Value for 2006 does not match column or row total because other data on table are uncorrected for estimated lost registration data.

[c] Some hunters with no-quota licenses hunted in the quota area. Some were drawn for the quota area but received NQ licenses. Others hunted in the wrong area purposefully or out of ignorance (n = 48 in 2006).

[d] Record high harvest in area 52 in 2006. Last column on this line shows previous record.

Table 5. Bear hunting success (%) by BMU, measured as the registered harvest (excluding second bear) divided by the number of licenses sold[a], 2001–2006.

BMU	Mean success 2001-2005	2006		2005[b]		2004		2003		2002		2001	
		% Success	% Taking 2 bears[c]	% Success	% Taking 2 bears[c]	% Success	% Taking 2 bears[c]	% Success	% Taking 2 bears[c]	% Success	% Taking 2 bears[c]	% Success	% Taking 2 bears[c]
Quota	24	25	—	25	—	26	—	25	—	14	—	28	(11)
12	35	19	—	41	—	33	—	35	—	22	—	44	(17)
13	29	24	—	32	—	33	—	31	—	19	—	31	(9)
22	8	14	—	10	—	11	—	4	—	8	—	7	(0)
24	23	25	—	20	—	27	—	25	—	15	—	28	(8)
25	32	30	—	30	—	38	—	34	—	23	—	34	(11)
26	29	30	—	34	—	31	—	29	—	17	—	32	(10)
31	28	33	—	31	—	33	—	25	—	17	—	34	(15)
41	27	13	—	31	—	23	—	29	—	14	—	40	(16)
44	21	16	—	24	—	20	—	26	—	9	—	23	(10)
45	11	14	—	13	—	12	—	13	—	4	—	13	(7)
51	18	28	—	18	—	19	—	21	—	9	—	24	(10)
No Quota	19	22[d]	(9)	23	(9)	18	(7)	21	(10)	10	(7)	23	(9)
Statewide	23	25	—	25	—	25	—	25	—	13	—	27	(11)

[a] Harvest/licenses instead of harvest/hunters because BMU-year-specific estimates for the rate of hunting by licensed hunters are unreliable. Statewide estimates of harvest/hunters are presented in Table 1.

[b] For 2005, estimated registered harvest was used instead of known registered harvest due to a large loss of registration data.

[c] Percent of successful hunters that shot 2 bears; 2nd bear is not included in the calculation of hunting success. The taking of 2 bears was legal statewide in 2001, but only in the no-quota area in 2002–2006.

[d] Although BMU 52 had a record harvest (see Table 1), there is no way to split BMUs 11 and 52 to examine hunting success because the number of hunters in each area is unknown (a single NQ license covers both BMUs).

Table 6. Cumulative bear harvest (% of total harvest) by date, 1990–2006.

Year	Day of week for opener	Aug 22/23 – Aug 31 (9–10 days)	Sep 1 – Sep 7 (7 days)	Sep 8 – Sep 14 (7 days)	Sep 15 – Sep 30 (16 days)
1990	Sat		69	82	96
1991	Sun		64	76	93
1992	Tue		72	86	96
1993	Wed		67	80	94
1994	Thu		67	78	92
1995	Fri		72	87	97
1996	Sun		56	70	87[a]
1997	Mon		76	88	97
1998	Tue		76	87	96
1999	Wed		69	81	95
2000	Wed	57	72	82	96
2001	Wed	67	82	88	98
2002	Sun		57	69	90[a]
2003	Mon		72	84	96
2004	Wed		68	82	95
2005	Thu		72	81	94
2006	Fri		69	83	96

[a] The large proportion of the harvest taken late in the season in 1996 and 2002 (e.g., >10% in October) was related to the high abundance of food in those years.

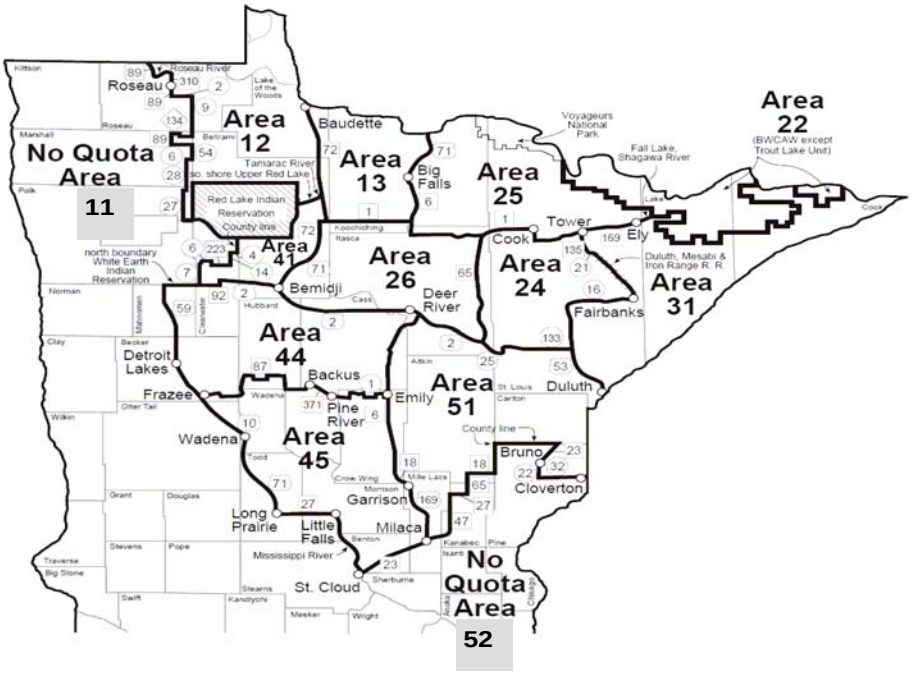

Figure. 1. Bear management units (BMUs or areas) within the Minnesota bear range. Within the primary bear range (shown in white) license numbers are limited by a quota. Hunters can hunt in only one area, except with a no-quota license they can hunt anywhere in the shaded zone (and beginning in 2005 hunters could posses both a no-quota and quota area license).

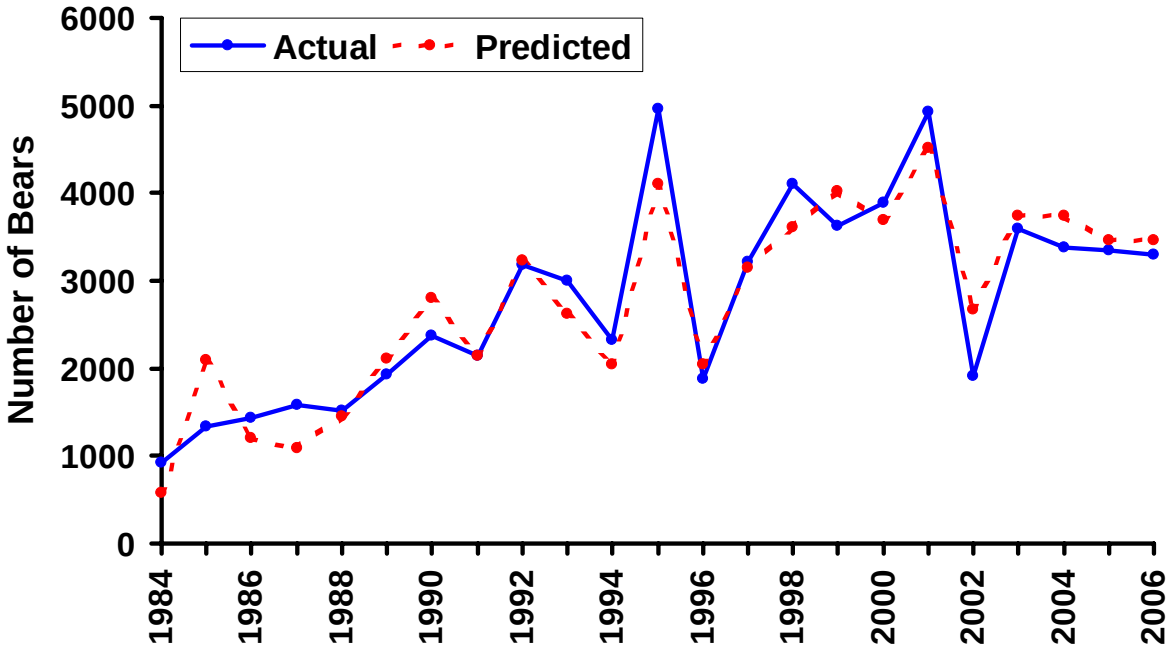

Figure 2. Number of bears killed vs. number predicted, based on fall food abundance and hunter numbers. Prediction for 2006 based on regression from 1984–2005 ($R^2 = 0.88$).

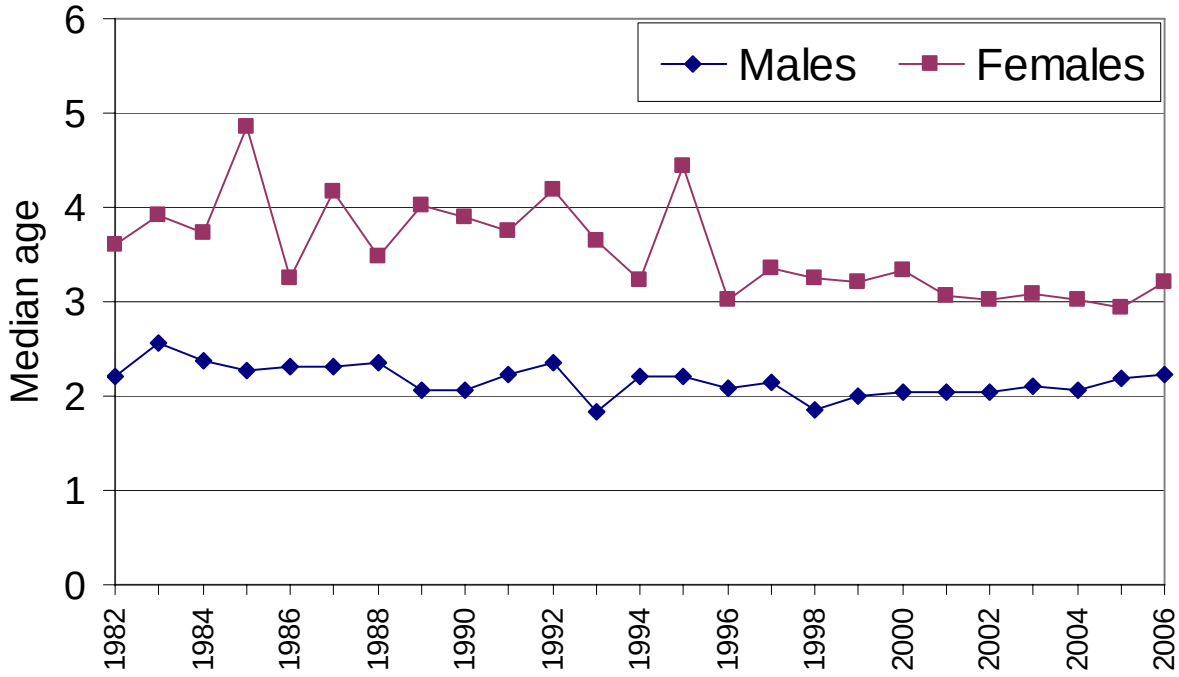

Figure 3. Statewide harvest age structure: median ages by sex, 1982–2006.

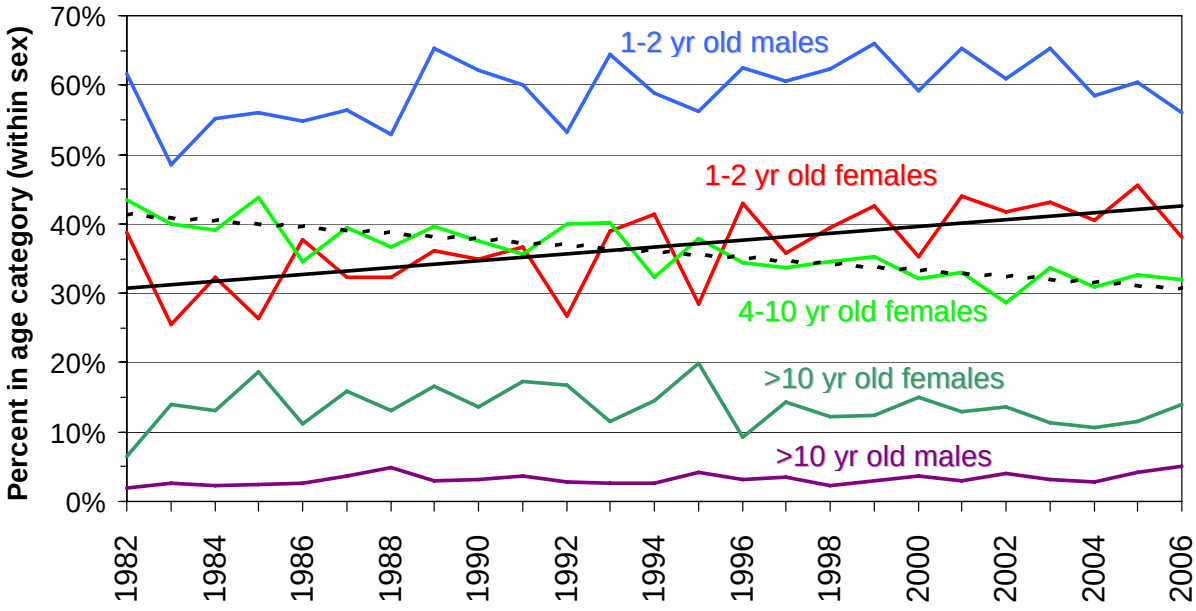

Figure 4. Statewide harvest age structure: proportion of each sex in age category sex, 1982–2006. A regression trend line is superimposed over the 1-2 year old females.

2006 Minnesota Moose Harvest

Mark S. Lenarz, Forest Wildlife Populations and Research Group

INTRODUCTION

Each year, a limited number of permits are issued that allow Minnesota residents to hunt moose. The following report is intended to document the number of hunters applying for permits, the number of permits issued, a hunting party's chance of receiving a permit, hunter success rate, and a breakdown of the harvest by hunting zone. Information on permit numbers and moose harvested by members of the 1854 Treaty Authority or Fond du Lac band of Lake Superior Chippewa within the 1854 Ceded Territory is also provided.

METHODS

All successful State hunters are required to register their moose at one of 8 registration stations and provide information on the location where they killed their moose, date of kill, and sex of moose harvested.

RESULTS

In 2006, 208 moose were harvested in northeastern Minnesota. No season was held in northwestern Minnesota. The State of Minnesota sold licenses to 269 hunting parties and hunters killed 161 moose including 133 bulls and 28 cows (Table 1). This table also lists the number of permits offered, chance of being selected for a permit, hunter success, and percent bulls in the harvest. The 1854 Treaty Authority issued 51 hunter permits and 4 subsistence permits. Band members killed 19 moose (13 bulls and 6 cows). The Fond du Lac band issued a total of 85 permits and the preliminary harvest (as of 11/21/2006) was 28 moose (24 bulls and 4 cows). The Fond du Lac season closes 12/3/2006.

DISCUSSION

The success rate of State hunters in 2006 was 60%, an increase of 1% over 2005 (Tables 1 and 2). This is the first year since 1999 that hunter success has increased. A survey was distributed to all licensed hunters this year to help identify cause(s) for the recent decline in hunter success. Results of this survey will be available later this year. The success rate for members of the 1854 Treaty Authority was 35%. The preliminary success rate for the Fond du Lac band was 33%, as of 11/21/2006.

Table 1. Breakdown by sex, permit numbers, party success, and percent bulls in 2006 moose harvest by State hunters in northeastern Minnesota.

Zone	Bulls	Cows	Total	Licenses Offered	Licenses Sold*	Party** Applications	Chances for Permit	Party Success	% Bulls
20	4	1	5	15	14	103	15%	36%	80%
21	3	0	3	6	6	50	12%	50%	100%
22	6	0	6	8	8	71	11%	75%	100%
23	3	0	3	6	6	63	10%	50%	100%
24	7	0	7	10	10	275	4%	70%	100%
25	6	1	7	7	7	163	4%	100%	86%
26	2	0	2	10	9	40	25%	22%	100%
27	1	1	2	10	9	30	33%	22%	50%
28	6	2	8	8	8	60	13%	100%	75%
29	6	1	7	8	8	149	5%	88%	86%
30	7	0	7	11	10	203	5%	70%	100%
31	12	2	14	19	18	362	5%	78%	86%
32	1	1	2	7	7	32	22%	29%	50%
33	3	2	5	8	8	71	11%	63%	60%
34	0	0	0	6	6	63	10%	0%	-
35	2	0	2	5	5	43	12%	40%	100%
36	5	1	6	15	14	48	31%	43%	83%
60	4	0	4	6	6	39	15%	67%	100%
61	5	1	6	10	10	42	24%	60%	83%
62	9	2	11	18	18	98	18%	61%	82%
63	1	3	4	9	8	36	25%	50%	25%
64	5	1	6	12	8	26	46%	75%	83%
70	4	1	5	5	5	126	4%	100%	80%
72	3	1	4	9	8	92	10%	50%	75%
73	4	2	6	8	8	103	8%	75%	67%
74	5	2	7	9	10	78	12%	70%	71%
76	5	0	5	8	9	127	6%	56%	100%
77	7	3	10	14	14	187	7%	71%	70%
79	3	0	3	8	8	75	11%	38%	100%
80	4	0	4	4	4	97	4%	100%	100%
Total	133	28	161	279	269	2952	9%	60%	83%

* Application error resulted in 1 extra license sold in each of zones 74 and 76

**Number of 2, 3, and 4 person parties.

Table 2. Applicants, permit numbers, licenses purchased, moose harvested, and success of State moose hunters since 1993.

	Northwest				Northeast				
Year	Party Applicants	Licenses Offered	Moose Harvested	Party Success	Party Applicants	Licenses Offered	Licenses Sold	Moose Harvested	Party Success
1993	6,558	446	422	95%	2,934	315	315	264	84%
1994	8,208	262	244	93%	3,022	189	189	155	82%
1995	7,622	191	171	90%	3,181	188	188	156	83%
1996	2,476	39	38	97%	3,830	207	207	156	75%
1997		No Season			3,958	198	198	152	77%
1998		No Season			4,157	182	182	125	69%
1999		No Season			3,919	189	189	136	72%
2000		No Season					No Season		
2001		No Season			3,164	182	176	125	71%
2002		No Season			2,580	208	202	141	70%
2003		No Season			2,328	224	217	144	66%
2004		No Season			3,062	246	240	151	63%
2005		No Season			3,060	284	276	164	59%
2006		No Season			2,952	279	269	161	60%

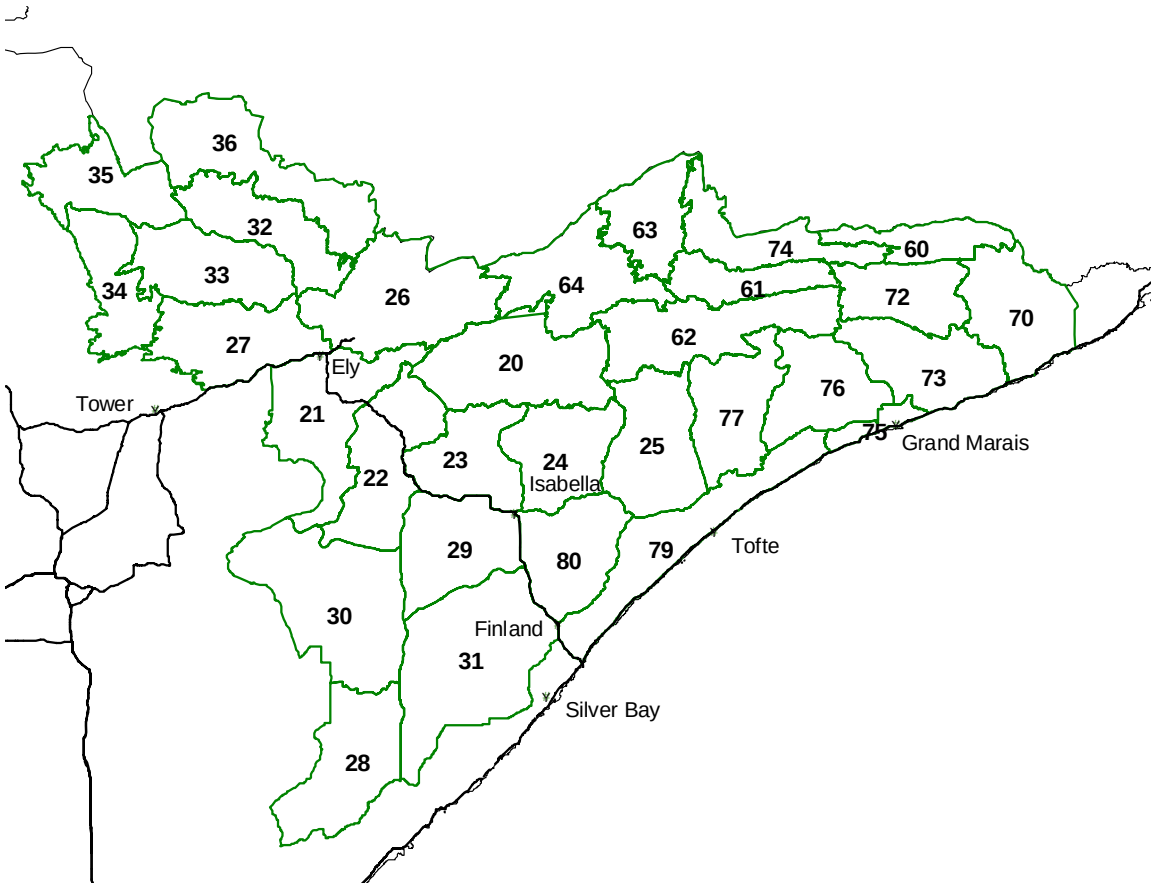

Figure 1. 2006 moose hunting zones in northeastern Minnesota.

2006 Elk Population and Harvest Report

Joel Huener, Thief Lake WMA

INTRODUCTION

Minnesota has two populations of elk. The first herd lives in the area north of Grygla on a combination of public and private lands, and can trace its origins back to re-introduction efforts in the area in 1935 (Figure 1). The second herd lives along the Manitoba/Kittson County border, and is comprised of animals that have moved in from Canada.
The Minnesota Legislature provided for the opportunity for sport hunting of elk in 1987 to help alleviate depredation concerns in the Grygla herd range, and to provide for the unique recreational opportunity this affords. Hunting this population is permitted whenever the pre-calving population exceeds 20 animals.

METHODS

Population estimates for these two herds are based on helicopter surveys done between December and March, when snow conditions and the lack of leaf cover permits good visibility of elk. Surveys are undertaken with DNR – Wildlife personnel from Thief Lake WMA and the Karlstad area office with DNR aircraft and pilots. Areas are covered using transects at 1/5 mile intervals in the Grygla herd range, and 1/3 mile intervals in the Border herd range. Transects are programmed into GPS based systems on the aircraft.

Further information on herd composition is derived from ground surveys driven during early morning hours in the respective elk ranges. Because the Border herd winters on both sides of the border, coordination between the Province of Manitoba and Minnesota DNR is necessary, and has not been possible in all years.

When the pre-calving population in the Grygla herd is above 30, a recommendation for hunting seasons and permit numbers is forwarded to the Region and St. Paul based on herd composition. Elk hunting in Minnesota is a once-in-a-lifetime opportunity, and hunters may apply for permits singly or in parties of two (receiving one permit between them). Permits are distributed based on a lottery. Successful applicants must attend a mandatory orientation at Thief Lake WMA, and animals taken must be registered there, where biological samples are taken.

RESULTS

The pre-calving population for the Grygla elk herd in 2006 was 53 animals (see Figure 2). Based on the survey and herd composition information, a bull season with two permits was authorized for September 16-24, 2006. Two different antlerless hunts with three permits each were authorized for November 18-26, and December 2-10, 2006. The Border herd is not hunted at this time in the U.S., and their survey information is presented in Figure 3.

Harvest statistics for this season and a comparison with previous years is presented in Table 1. The elk rut was going on during the bull hunt, and both parties were able to fill their tags with 6X6 bulls on opening day. No snow was present for the majority of the first antlerless elk hunt, which made location of the animals difficult, and no elk were taken during this hunt.

Snow was present during the second antlerless hunt, and hunters were able to take two animals. A female calf was taken on the 4th day of the season, and a spike bull was shot on the last day of the hunt (enforcement action was taken). Biological samples to examine elk health and screen for bovine tuberculosis were collected from all animals.

Table 1. Minnesota elk harvest by year including 2006.

	Bulls		Antlerless	
Year	**Permits**	**Harvest**	**Permits**	**Harvest**
1987	2	1	2	1
1996	2	2	7(1 alternate)	6
1997	5(2 alternate)	1	5(2 alternate)	2
1998	4(2 alternate)	2	0	0
2004	1	1	4	2
2005	1	0	4	0
2006	2	2	6	2*
Total	17(3 alternate)	9	28	13*

*One of two elk taken was actually a spike bull

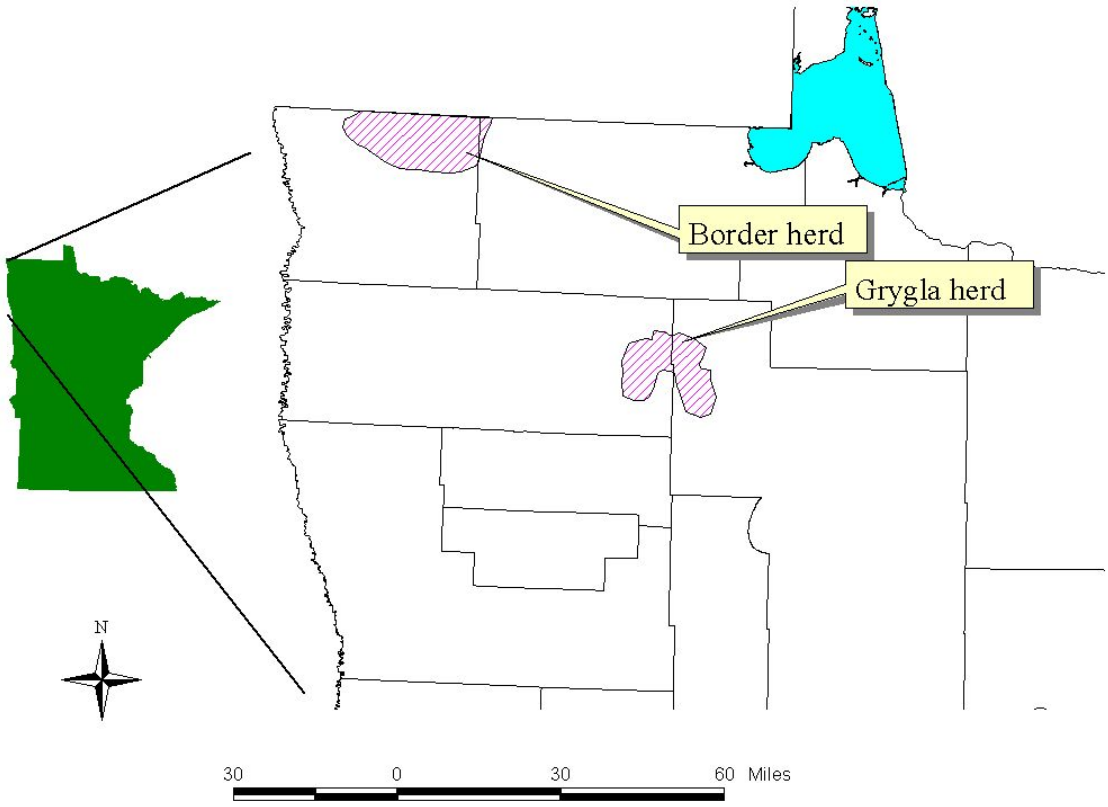

Figure 1. Current elk range in Minnesota, 2006.

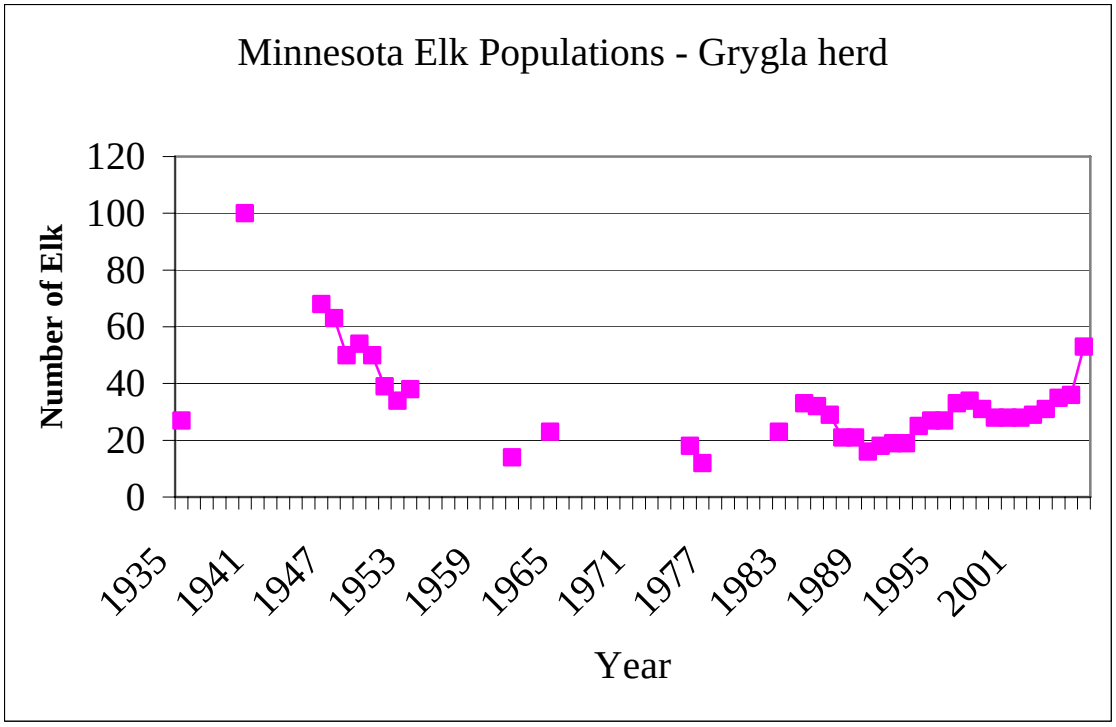

Figure 2. Pre-calving elk numbers in the Grygla herd, 2006.

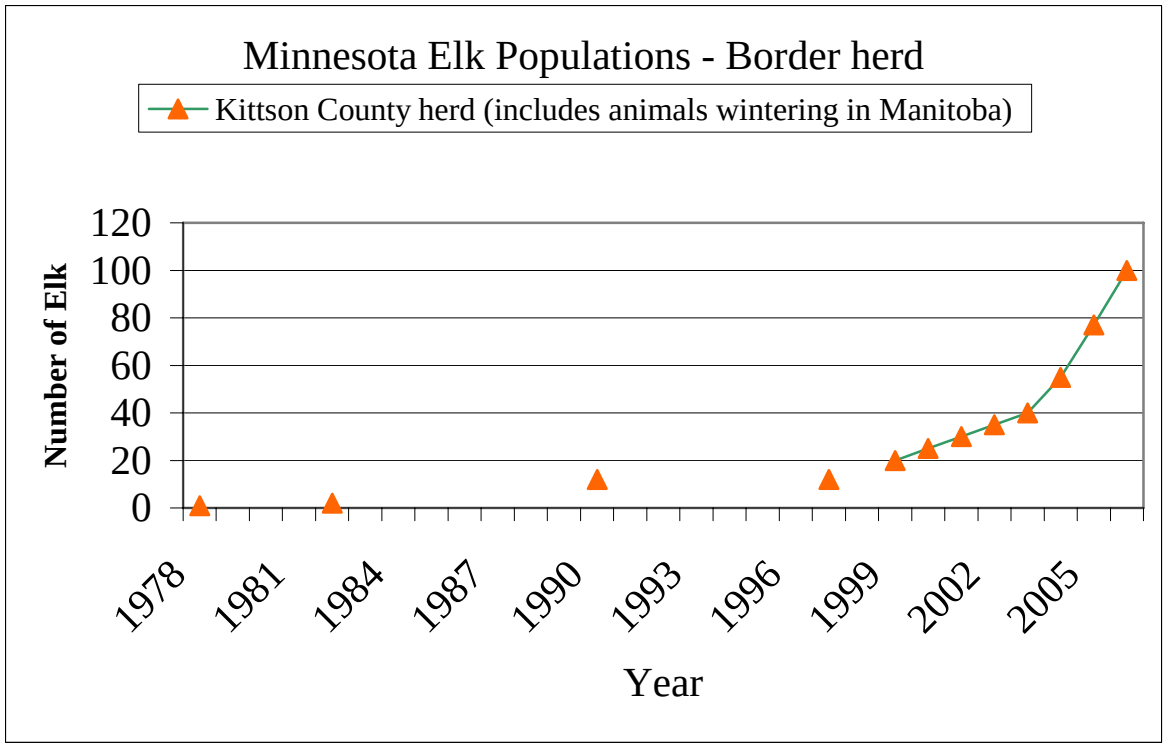

Figure 3. Pre-calving elk numbers in the Border herd, 2006.