

HUNTING HARVEST STATISTICS

Division of Fish and Wildlife
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2009 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 requested a random sample be drawn from the Electronic License System database in late February, 2010 to ensure that each license holder had an equal chance of being in the survey sample. The sample consisted of 5,999 (approximately 2%) Small Game License holders, drawn proportionately from each of the nine Small Game license types available: Resident Senior Citizen, Resident Youth Small Game, Resident (Adult) Small Game, Resident Individual sports, Resident Combination Sports, Resident Lifetime Small Game, Resident Lifetime sports, Nonresident Youth, and Nonresident (Adult) Small Game.

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. The following is a list of assumptions made in data coding:

- 1) If an individual checked the box indicating (s)he did not hunt, but harvest information was provided, it was assumed that the individual did hunt.
- 2) If a range was given for "number of days hunted" or "number of animals harvested", the median of the range, rounded to the nearest even integer was recorded.
- 3) If a hunter indicated spending time hunting for a species, but left "number bagged" blank, the # bagged was entered as missing data.
- 4) If a small game hunter indicated bagging a species, but left "number of days hunted" blank, then "number of days hunted" was recorded as missing data.
- 5) If more than one county was indicated for "county hunted in most", the first county listed was recorded. However, if the several counties listed were indicated to apply to all species hunted, then counties were recorded in sequential order in relation to species hunted.
- 6) If "county hunted in most" was left unanswered or not legible, the county was recorded as missing data.

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

RESULTS

Estimated number of hunters increased slightly for crow, spruce grouse and red fox (Table 3). Number of hunters declined for duck, Canada goose, mourning dove, pheasant, sharp-tailed grouse, cottontails, and snowshoe hare (Table 3). There was very little change in estimated take per hunter (Table 4) or mean harvest and hunter success rates (Table 5). Total estimated harvests (Table 6) increased for crow, woodcock, ruffed grouse, spruce grouse, fox squirrel, and red fox. Estimated harvests declined for ducks, geese, coot, snipe, mourning dove, pheasant, sharp-tailed grouse, gray partridge, gray squirrel, cottontail, jack rabbit, snowshoe hare and raccoon. Estimated harvest for gray fox and coyote stayed the same as for the previous year. Note that all estimates were 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.

Attached are survey results. All estimates were statewide unless otherwise indicated. Tables 1-7 are historic tables of small game harvest for the previous 10 years and tables 8-12 are for the 2009-10 hunting season.

Table 1. Small game hunter response to mail surveys, 1979 - 80 through 2009 - 10.

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 ^a	6,280	142	3,946	64.3
2006 - 07 ^a	6,000	151	3,810	65.1
2007 - 08 ^a	6,000	113	3,736	65.5
2008 - 09 ^a	5,996	183	3,551	61.1
2009 - 10 ^a	5,999	88	3,828	63.8

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

Table 2. Use of small game hunter licenses, 1999-00 through 2009-2010.

		Returns from mail survey	Projections from license sales
1999-00	Hunted	2,689 (80.7%)	264,237
	Did not hunt	<u>644 (19.3%)</u>	<u>63,194</u>
		3,333 (100.0%)	327,431
2000-01	Hunted	2,254 (78.7%)	252,518
	Did not hunt	<u>610 (21.3%)</u>	<u>68,344</u>
		2,864 (100.0%)	320,862
2001-02	Hunted	2,849 (77.7%)	231,589
	Did not hunt	<u>610 (21.3%)</u>	<u>66,466</u>
		3,665 (100.0%)	298,055
2002-03	Hunted	2,962 (76.7%)	221,455
	Did not hunt	<u>900 (23.3%)</u>	<u>67,274</u>
		3,862 (100.0%)	288,729
2003-04	Hunted	3,085 (78.2%)	232,206
	Did not hunt	<u>862 (21.8%)</u>	<u>64,733</u>
		3,947 (100.0%)	296,939
2004-05	Hunted	2,934 (77.6%)	223,275
	Did not hunt	<u>847 (22.4%)</u>	<u>64,450</u>
		3,781 (100.0%)	287,725
2005-06	Hunted	3,035 (77.1%)	216,000
	Did not hunt	<u>900 (22.9%)</u>	<u>64,156</u>
		3,935 (100.0%)	280,156
2006-07	Hunted	2,994 (79.0%)	233,759
	Did not hunt	<u>795 (21.0%)</u>	<u>62,139</u>
		3,789 (100.0%)	295,898
2007-08	Hunted	2,894 (77.9%)	232,505
	Did not hunt	<u>822 (22.1%)</u>	<u>65,961</u>
		3,716 (100.0%)	298,467
2008-09	Hunted	2,678 (75.4%)	218,753
	Did not hunt	<u>873 (24.6%)</u>	<u>71,311</u>
		3,551 (100.0%)	290,064
2009-10	Hunted	2,850 (75.0%)	212,126
	Did not hunt	<u>952 (25.0%)</u>	<u>70,857</u>
		3,802 (100.0%)	282,983

Includes resident and non-resident information. Excludes duplicates.



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2009 Small Game Hunter Report

1. Did you hunt small game, listed below, in Minnesota this year (March 2009 - Feb 2010)? 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	94	_____	_____
Red fox	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 2009-2010 small game hunting season (**March 2009-February 2010**). We need information to estimate the season's harvest and to help set future small game seasons. Answer only for your Minnesota 2009 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 Research Unit
500 Lafayette Road, Box 20
St. Paul, MN 55155



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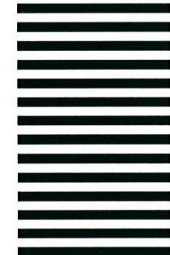


Figure 1. Sample of Small Game Hunter survey card

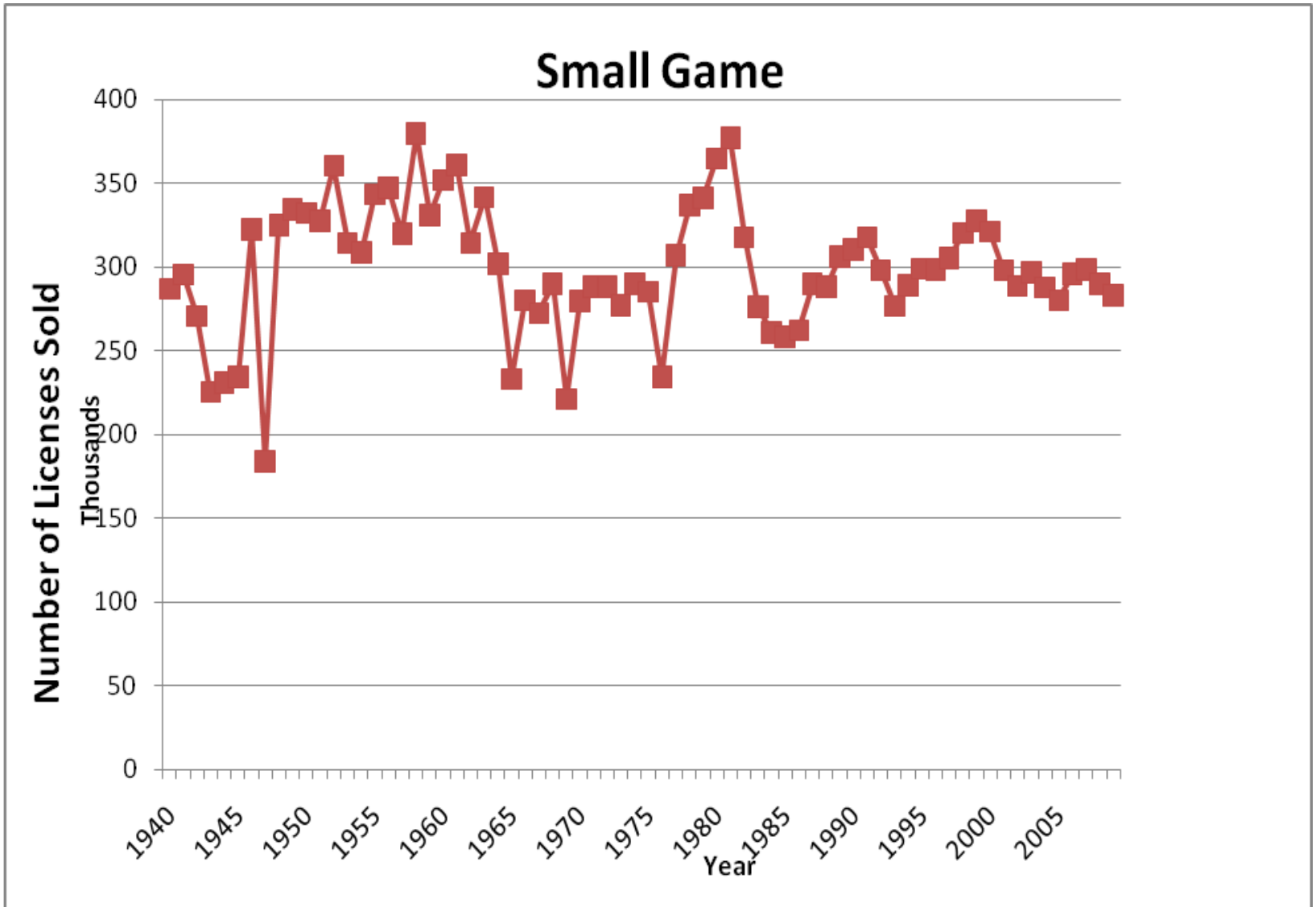


Figure 2. Number of Minnesota small game licenses sold, 1940–2009

Table 3. Estimated number of hunters (thousands) for various species, 1995-96 through 2009-10.

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Ducks	119	114	122	117	122	109	109	112	101	105	92	87	87	81	78
Canada goose	73	75	79	77	80	77	76	79	75	75	69	66	63	59	56
Other geese	10	6	5	6	5	7	7	6	7	5	5	5	4	4	3
American coot	9	6	7	5	6	4	4	4	4	5	4	5	3	4	4
Common snipe	2	2	2	2	2	2	1	2	1	2	1	2	2	2	1
Rails / gallinules	1	<1	<1	<1	<1	<1	<1	1	<1	<1	0	1	<1	<1	<1
Crow *	15	13	11	11	14	14	11	13	12	12	12	11	9	10	11
American woodcock	21	18	17	19	19	16	11	12	13	12	11	14	11	12	12
Mourning dove ^γ										16	11	13	13	12	10
Ring-necked pheasant	96	88	80	88	93	100	85	91	105	104	111	119	118	107	100
Ruffed grouse	116	118	127	142	139	121	101	91	94	79	76	92	91	87	87
Spruce grouse	14	11	11	11	11	9	9	7	9	7	7	10	11	8	10
Sharp-tailed grouse	8	7	8	8	8	10	8	6	7	6	5	7	7	7	6
Gray partridge	12	11	8	10	10	8	7	7	8	5	6	6	7	4	4
Gray squirrel	35	33	27	30	31	27	26	25	29	23	25	25	26	22	22
Fox squirrel	23	20	16	18	20	17	15	15	20	15	15	16	15	13	13
Eastern cottontail	23	19	14	19	18	20	17	16	21	19	20	20	20	18	16
White-tailed jackrabbit	5	4	3	3	3	2	3	2	3	3	2	3	3	2	2
Snowshoe hare	5	4	4	7	7	5	6	6	6	4	3	6	4	5	3
Raccoon (Sept - Feb)	10	10	9	9	6	6	6	6	6	6	5	9	10	7	7
Raccoon [‡] (March -Aug)	5	4	3	4	3	5	4	4	5	3	3				
Red fox (Sept -Feb)	15	11	9	9	8	10	6	7	7	6	6	6	6	6	8
Red fox [‡] (March -Aug)	4	3	2	3	2	2	3	2	2	1	1				
Gray fox	3	n.a.	2	2	2	1	1	1	2	2	1	2	2	2	2
Coyote	15	13	10	11	11	16	11	12	15	16	19	17	16	19	19
Badger	<1	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, 1995-96 through 2009-10.

	Estimated take per hunter														
	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Ducks	9.7	9.6	9.9	9.5	8.4	8.9	9.1	9.2	9.0	6.9	7.3	8.4	8.1	8.1	7.4
Canada geese	2.5	3.2	2.9	2.8	3.5	3.9	4.0	3.3	3.9	3.8	4.1	4.9	3.9	4.9	4.1
Other geese	0.9	1.4	2.3	1.0	1.2	2.2	1.2	1.9	1.7	1.5	1.9	1.5	2.1	3.2	1.9
American coot	3.1	3.8	4.1	4.7	4.0	2.7	4.5	4.6	2.8	4.0	3.9	5.6	4.6	5.7	3.6
Common snipe	1.6	2.8	2.6	2.9	1.6	1.3	1.3	1.5	1.8	1.1	4.4	1.9	2.0	1.2	1.1
Rails/gallinules	2.3	1.0	0.7	0.5	0.2	3.7	0.6	2.6	0.5	0.3	0	2.4	5.3	0.4	0.8
Crow *	8.5	7.3	6.6	9.3	4.4	6.9	7.7	5.6	6.7	5.8	7.8	6.4	6.4	5.2	5.3
American woodcock	3.9	3.2	3.4	3.3	2.8	2.8	2.3	2.4	2.4	3.5	2.5	3.2	2.6	2.4	3.0
Mourning dove ^γ										6.2	7	6.7	7.7	11.4	10.5
Ring-necked pheasant	4.2	3.9	3.1	3.5	3.7	3.7	3.2	3.9	4.9	4.0	5.3	4.9	5.5	4.9	4.0
Ruffed grouse	3.9	4.5	5.2	6.7	4.9	5.1	3.3	2.8	3.8	2.5	2.9	4.5	3.2	3.7	4.1
Spruce grouse	1.8	1.4	2.3	2.4	1.8	2.5	1.1	1.6	2.1	1.3	1.4	2.7	1.7	2.0	1.9
Sharp-tailed grouse	1.3	1.2	1.7	2.6	1.6	1.6	1.2	1.3	1.7	1.7	1.3	1.8	2.0	2.1	1.7
Gray partridge	2.2	2.2	1.9	2.5	1.9	2.1	1.5	1.7	2.8	2.4	2.6	1.9	1.6	2.2	1.9
Gray squirrel	4.9	4.9	4.9	5.0	4.3	5.3	5.6	5.2	6.0	5.7	5.0	5.5	5.2	5.4	4.9
Fox squirrel	4.6	3.8	4.4	3.3	3.5	3.9	4.1	4.5	4.2	4.1	4.1	4.2	3.2	3.9	4.1
Eastern cottontail	4.3	3.4	4.5	4.6	3.2	3.9	3.6	3.3	4.3	4.6	4.5	3.9	4.0	4.5	3.5
White-tailed jackrabbit	1.5	2.6	1.6	2.5	1.9	2.8	2.6	1.6	2.4	2.3	2.7	1.6	3.3	2.6	1.5
Snowshoe hare	2.0	2.3	2.0	3.5	3.1	5.2	3.3	1.9	2.2	1.8	3.1	3.0	1.4	2.5	1.5
Raccoon (Sept - Feb)	14.7	21.3	13.8	16.6	10.9	7.6	9.4	10.0	8.5	9.0	6.0	7.2	4.9	9.7	9.1
Raccoon [‡] (March -Aug)	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 -Feb)	3.1	3.0	1.4	1.3	1.2	1.9	1.2	1.5	1.8	1.1	1.7	1.3	1.1	0.8	1.3
Red fox [‡] (March -Aug)	1.5	1.3	0.8	1.2	0.6	0.9	1.5	1.7	0.6	0.6	0.9				
Gray fox	1.0	n.a.	1.3	0.9	0.9	0.7	0.4	0.4	0.4	1.1	0.9	1.8	0.3	1.3	1.0
Coyote	1.8	2.3	1.6	1.3	1.3	1.8	1.1	1.2	1.3	1.1	2.1	1.2	2.1	2.4	2.4
Badger	1.4	2.1	0.9	4.3	1.1	0.8	0.6	1.7	0.7	1.0	1.2	1.3	0.3	1.0	2.0

* 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 (%), 1999-00 through 2009-10.

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Ducks	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)	9.5 (85.4)	9.8 (82.8)	9.2(80.5)
Canada geese	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)	5.5 (71.4)	6.4 (76.6)	5.6 (72.8)
Other geese	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)	4.2 (50.0)	6.3 (50.0)	3.5 (54.5)
American coot	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)	6.3 (74.4)	6.9 (82.4)	5.5 (65.5)
Common snipe	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)	2.9 (70.8)	1.7 (72.7)	1.82 (61.1)
Rails / gallinules	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)	6.4 (83.3)	1.0 (40.0)	1.3 (60.0)
Crow	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)	7.3 (87.7)	5.9 (87.8)	5.9 (89.5)
American woodcock	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)	3.7 (68.9)	3.3 (73.8)	4.1 (72.3)
Mourning dove ^γ						7.9 (78.9)	8.7 (80.1)	8.2 (81.2)	9.8 (78.7)	13.2 (86.6)	11.4 (92.2)
Ring-necked pheasant	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)	7.1 (78.1)	6.4 (76.7)	5.8 (68.7)
Ruffed grouse	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)	4.7 (69.4)	5.0 (73.7)	5.5 (74.5)
Spruce grouse	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)	3.1 (53.8)	3.0 (67.6)	3.1 (63.6)
Sharp-tailed grouse	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)	4.4 (45.9)	3.2 (64.2)	3.0 (57.3)
Gray partridge	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)	3.0 (55.4)	3.4 (64.8)	3.3 (57.9)
Gray squirrel	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)	5.9 (87.6)	6.2 (87.6)	5.8 (85.6)
Fox squirrel	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)	3.9 (82.6)	4.6 (83.3)	4.8 (84.7)
Eastern cottontail	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)	4.8 (84.0)	5.3 (85.2)	4.3 (82.6)
White-tailed jackrabbit	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)	4.5 (72.2)	3.8 (70.0)	2.1 (70.8)
Snowshoe hare	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)	2.2 (62.3)	3.5 (71.4)	2.6 (59.6)
Raccoon (Sept -Feb)	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)	5.4 (89.9)	10.6 (91.2)	9.6 (94.9)
Raccoon [‡] (March -Aug)	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 -Feb)	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)	2.3 (45.8)	1.5 (49.3)	2.4 (54.3)
Red fox [‡] (March -Aug)	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	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)	1.0 (29.2)	3.3 (39.1)	2.5 (41.7)
Coyote	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)	4.4 (49.0)	4.4 (53.8)	4.6 (51.7)
Badger	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)	1.6 (81.8)	1.0 (33.3)	1.2 (83.3)	2.5 (80.0)

[‡] 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 (resident and non-resident) small game hunting license sales and estimated hunter harvest, 1997-98 through 2009-10.

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Small game license sales ^a	305,186	320,308	327,431	320,862	298,055	288,729	296,939	287,725	280,156	295,898	298,467	290,064	282,983
Federal duck stamp sales	138,331	134,098	134,138	135,884	140,980 ^c	144,851 ^c							
State duck stamp sales	126,009	126,488	128,245	121,709	118,590	119,677	118,757	114,003	102,143	101,792	100,134	95,675	89,942
Pheasant stamp sales	85,093	99,664	106,945	114,440	97,665	102,097	121,456	114,653	117,301	129,546	129,315	123,270	110,456
Estimated harvest ^b (thousands)													
Ducks ^c	1,206	1,119	1,021	969	990	1,024	914	727	677	731	708	658	576
Canada geese ^c	230	218	285	301	308	257	290	284	282	324	244	288	229
Other geese ^c	11	6	6	15	8	11	13	8	9	7	8	14	6
American coot ^c	29	25	25	10	17	20	11	20	16	25	16	24	15
Common snipe	4	5	3	3	2	3	3	2	5	4	4	2	1
Rails / gallinules	<1	<1	<1	1	<1	2	<1	<1	0	1	3	<1	<1
Crow	74	106	60	96	88	72	82	72	93	69	54	52	56
American woodcock	58	63	54	45	27	28	30	41	28	43	28	29	35
Mourning dove ^f								97	78	86	101	133	110
Ring-necked pheasant	248	309	339	375	267	358	511	420	586	588	655	522	400
Ruffed grouse	654	946	685	619	332	249	351	194	224	417	294	318	358
Spruce grouse	25	27	19	23	9	12	18	9	10	27	18	17	19
Sharp-tailed grouse	13	22	14	16	10	9	12	10	6	12	14	14	10
Gray partridge	16	24	19	17	10	11	22	13	16	11	11	10	8
Gray squirrel	131	149	132	140	146	134	175	133	122	141	133	122	110
Fox squirrel	68	57	71	65	63	67	85	62	62	66	48	51	54
Eastern cottontail	65	89	59	78	63	52	93	87	90	78	79	80	58
White-tailed jack rabbit	4	7	6	7	8	4	7	7	5	4	9	6	3
Snowshoe hare	8	25	21	27	22	11	12	8	10	17	6	11	5
Raccoon (Sept -Feb)	124	143	65	49	59	60	50	57	29	63	47	72	67
Raccoon ^d (Mar -Aug)	17	2	16	36	18	19	22	20	7				
Red fox (Sept -Feb)	13	13	10	19	7	11	13	6	10	8	6	4	10
Red fox ^d (Mar -Aug)	2	3	1	2	4	4	1	1	1				
Gray fox	3	1	2	1	1	1	1	2	1	4	1	2	2
Coyote	16	14	13	29	12	14	20	18	39	21	34	46	46
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.

^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 2008 are:

Ducks 584,000 Canada geese 222,900 Other geese 0

^d Raccoon and red fox seasons were year round from May, 1994 through March 16, 2006.

^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, 1996-97 through 2008-09.

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Nonresident licenses issued^a	6,361	7,155	7,572	7001	5,843	5,852	6,291	6,385	5,897	7,356	7,858	7,114	6,934
Questionnaires:													
Number mailed	269	200	199	98	124	130	123	182	210	185	185	226	196
Number not delivered	18	17	16	6	9	9	17	13	10	11	11	15	10
Number (percent) returned	183 (73)	117 (64)	136 (74)	56 (61)	77 (67)	75 (66)	68 (64)	114 (67)	134 (67)	115 (62)	101 (58)	89 (42)	105 (54)
Estimated nonresidents and (percent) of all nonresidents hunting:													
Ducks	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)	2,256 (29)	2,293 (32)	1,849 (27)
Canada goose	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)	934 (12)	1,587(22)	726 (10)
Ruffed grouse	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)	1,867 (24)	1,940 (27)	1,915 (28)
Ring-necked pheasant	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)	2,645 (34)	3,116 (44)	1,519 (22)
Raccoon	35 (1)	0 (0) ^c	56 (1)	250 (4)	0 (0)	0 (0)	0 (0)	0 (0)	44 (0.7)	0 (0)	78 (1.0)	0 (0)	0 (0)
Estimated nonresident take:													
Ducks	15,967	26,663	26,391	18,253	42,225	17,556	17,855	19,269	12,149	12,173	22,718	15,463	11,755
Canada goose	4,905	4,587	6,960	5,001	13,400	5,852	5,736	6,214	3,946	3,580	3,501	5,762	3,698
Ruffed grouse	16,072	27,886	23,384	24,003	6,622	9,207	9,437	7,924	6,429	11,522	7,236	6,938	8,651
Ring-necked pheasant	2,505	1,712	4,844	4,001	3,740	7,647	9,344	11,174	13,656	16,079	17,661	10,642	6,274
Raccoon ^b	70	0	724	3,375	0	0	0	0	887	0	3,268	0	0

^a Excludes duplicate licenses and nonresident shooting preserve licenses.

^b In 2001, 2002, 2003, 2004, 2006, 2008, and 2009 no non-residents reported hunting/harvesting raccoons.

Raccoon take per hunter			
Year	Resident	Non-resident	Number of Non-resident raccoon licenses
2000	8	13	51
2001 ^b	10	0	48
2002 ^b	11	0	46
2003 ^b	10	0	44
2004 ^b	8	0	46
2005	6	20	44
2006 ^b	8	0	53
2007	5	42	45
2008 ^b	10	0	40
2009 ^b	10	0	33

Table 8. Number of days spent hunting small game statewide by species, 2009 – 10.

SPECIES HUNTED	SUM OF DAYS HUNTED	SAMPLE SIZE	MEAN DAYS HUNTED W/ ZEROES	95% CONF INT	N REPORTING DAYS HUNTED	MEAN DAYS HUNTED W/O ZEROES	95% CONF INT	ESTIMATED HUNTERS	ESTIMATED HUNTER-DAYS	95% CONF INT
DUCK (ALL SPECIES)	7485	3802	1.97	0.16	1032	7.25	0.47	77,705	557,109	45,756
CANADA GOOSE	5580	3802	1.47	0.15	728	7.66	0.60	55,599	415,320	42,066
OTHER GEESE	300	3802	0.08	0.04	40	7.50	3.15	3,275	22,329	11,461
COOT	355	3802	0.09	0.04	50	7.10	2.76	4,094	26,423	12,433
SNIPE	130	3802	0.03	0.03	15	8.67	6.42	1,340	9,676	7,942
RAILS & GALLINULES	71	3802	0.02	0.02	5	14.20	22.44	372	5,285	6,971
CROW	617	3802	0.16	0.06	133	4.64	1.51	10,643	45,923	16,615
WOODCOCK	915	3802	0.24	0.05	151	6.06	0.93	11,834	68,103	14,761
MOURNING DOVE	631	3802	0.17	0.04	138	4.57	0.88	10,495	46,965	11,743
PHEASANT	9150	3802	2.41	0.19	1314	6.96	0.46	99,811	681,035	53,296
RUFFED GROUSE	7481	3802	1.97	0.16	1152	6.49	0.44	87,530	556,811	46,294
SPRUCE GROUSE	775	3802	0.20	0.06	122	6.35	1.32	9,825	57,683	15,546
SHARP-TAILED GROUSE	449	3802	0.12	0.05	72	6.24	2.01	5,582	33,419	13,046
GRAY PARTRIDGE	447	3802	0.12	0.05	54	8.28	3.01	4,243	33,270	14,765
FOX SQUIRREL	1084	3802	0.29	0.08	172	6.30	1.45	13,174	80,682	21,822
GRAY SQUIRREL	1568	3802	0.41	0.08	284	5.52	0.82	22,255	116,706	21,475
COTTONTAIL RABBIT	1180	3802	0.31	0.12	208	5.67	2.03	16,300	87,827	33,254
JACKRABBIT	40	3802	0.01	0.01	21	1.90	0.83	1,786	2,977	1,724
SNOWSHOE HARE	159	3802	0.04	0.02	43	3.70	1.28	3,498	11,834	5,317
BADGER	7	3802	0.00	0.00	4	1.75	1.52	372	521	561
RACCOON(SEPT-FEB)	771	3802	0.20	0.09	86	8.97	3.75	7,294	57,386	26,546
RED FOX(SEPT-FEB)	904	3802	0.24	0.10	91	9.93	3.46	7,815	67,285	26,833
GRAY FOX	405	3802	0.11	0.09	20	20.25	15.55	1,786	30,144	24,731
COYOTE	2153	3802	0.57	0.14	244	8.82	1.88	19,426	160,248	38,912

Table 9. Statewide estimates of number of hunters and mean harvest for all hunters reporting hunting for that species, 2009 – 10.

SPECIES HUNTED	BAGGED SUM	SAMPLE SIZE	N HUNTING	ESTIMATED HUNTERS	MEAN BAGGED W/ ZEROES	95% CONF INT
DUCK (ALL SPECIES)	7749	3802	1044	77,705	7.42	0.22
CANADA GOOSE	3074	3802	747	55,599	4.12	0.11
OTHER GEESE	84	3802	44	3,275	1.91	0.01
COOT	199	3802	55	4,094	3.62	0.03
SNIPE	20	3802	18	1,340	1.11	0.00
RAILS & GALLINULES	4	3802	5	372	0.80	0.00
CROW	757	3802	143	10,643	5.29	0.05
WOODCOCK	476	3802	159	11,834	2.99	0.05
MOURNING DOVE	1477	3802	141	10,495	10.48	0.10
PHEASANT	5375	3802	1341	99,811	4.01	0.13
RUFFED GROUSE	4810	3802	1176	87,530	4.09	0.12
SPRUCE GROUSE	257	3802	132	9,825	1.95	0.02
SHARP-TAILED GROUSE	128	3802	75	5,582	1.71	0.01
GRAY PARTRIDGE	108	3802	57	4,243	1.89	0.01
FOX SQUIRREL	725	3802	177	13,174	4.10	0.05
GRAY SQUIRREL	1475	3802	299	22,255	4.93	0.06
COTTONTAIL RABBIT	776	3802	219	16,300	3.54	0.04
JACKRABBIT	35	3802	24	1,786	1.46	0.01
SNOWSHOE HARE	72	3802	47	3,498	1.53	0.01
BADGER	10	3802	5	372	2.00	0.00
RACCOON(SEPT-FEB)	896	3802	98	7,294	9.14	0.11
RED FOX(SEPT-FEB)	138	3802	105	7,815	1.31	0.01
GRAY FOX	25	3802	24	1,786	1.04	0.01
COYOTE	620	3802	261	19,426	2.38	0.05

Table 10. Estimated harvest and mean harvest per successful hunter 2009-10

SPECIES HUNTED	N BAGGING	MEAN BAGGED W/O ZEROES	95% CONF INT	ESTIMATED BAGGERS	HARVEST ESTIMATE	95% CONF INT	HUNTER SUCCESS RATE (%)
DUCK (ALL SPECIES)	840	9.23	0.85	62,521	576,758	62,631	80.5
CANADA GOOSE	544	5.65	0.59	40,490	228,798	29,573	72.8
OTHER GEESE	24	3.50	1.80	1,786	6,252	3,867	54.5
COOT	36	5.53	2.43	2,679	14,812	7,975	65.5
SNIPE	11	1.82	0.78	819	1,489	1,024	61.1
RAILS & GALLINULES	3	1.33	1.43	223	298	355	60.0
CROW	128	5.91	1.09	9,527	56,344	13,992	89.5
WOODCOCK	115	4.14	1.53	8,559	35,429	14,452	72.3
MOURNING DOVE	130	11.36	2.11	9,676	109,933	27,382	92.2
PHEASANT	921	5.84	0.42	68,550	400,061	36,455	68.7
RUFFED GROUSE	876	5.49	0.43	65,201	358,008	34,886	74.5
SPRUCE GROUSE	84	3.06	0.78	6,252	19,129	6,293	63.6
SHARP-TAILED GROUSE	43	2.98	0.69	3,200	9,527	3,549	57.3
GRAY PARTRIDGE	33	3.27	1.16	2,456	8,038	3,886	57.9
FOX SQUIRREL	150	4.83	1.00	11,165	53,962	13,873	84.7
GRAY SQUIRREL	256	5.76	0.67	19,054	109,784	18,048	85.6
COTTONTAIL RABBIT	181	4.29	0.65	13,472	57,758	11,929	82.6
JACKRABBIT	17	2.06	0.97	1,265	2,605	1,644	70.8
SNOWSHOE HARE	28	2.57	0.59	2,084	5,359	2,303	59.6
BADGER	4	2.50	3.79	298	744	939	80.0
RACCOON(SEPT-FEB)	93	9.63	4.10	6,922	66,689	31,026	94.9
RED FOX(SEPT-FEB)	57	2.42	0.55	4,243	10,271	3,493	54.3
GRAY FOX	10	2.50	1.94	744	1,861	1,645	41.7
COYOTE	135	4.59	1.28	10,048	46,147	14,799	51.7

The following information has been excerpted from: U.S. Fish and Wildlife Service. Migratory bird hunting activity and harvest during the 2008 and 2009 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.html>

Table 1. Species composition of the Minnesota waterfowl harvest, 2008 and 2009. (from: Raftovich, R.V., K.A. Wilkins, K.D. Richkus, S.S. Williams, and H.L. Spriggs. 2010. Migratory Bird Hunting activity and harvest during the 2008 and 2009 hunting seasons: Preliminary estimates. U.S. Fish and Wildlife Service, Laurel, Maryland. USA July 2010. 63 pp).**Note:** All hunter activity and harvest estimates are preliminary, pending final counts of the number of migratory bird hunters in each state and complete audits of all survey response data.

Species	Minnesota Harvest					Mississippi Flyway Harvest		
	2008	% of Harvest	2009	% of Harvest	Percent change in Harvest 08-09	2008	2009	Percent change Harvest 08-09
Mallard	188,974	32.36	101,280	25.82	- 87	2,282,091	2,076,235	- 10
Domestic mallard	0	0.00	0	0.00	0	3,311	1,990	- 66
American black duck	1,120	0.19	0	0.00	0	29,641	30,373	+ 2
Black x mallard	560	0.10	641	0.16	+ 13	5,850	6,104	+ 4
Gadwall	19,877	3.40	23,931	6.10	+ 17	906,308	713,277	- 27
American wigeon	13,718	2.35	10,470	2.67	- 31	160,218	96,709	- 66
Green-winged teal	61,592	10.55	49,999	12.74	- 23	852,849	755,233	- 13
Blue-winged /cinnamon teal	60,752	10.40	34,828	8.87	- 74	517,937	732,594	+ 29
Northern shoveler	10,079	1.73	16,666	4.25	+ 40	252,481	283,039	+ 11
Northern pintail	7,279	1.25	3,632	0.93	- 100	158,218	106,727	- 48
Wood duck	78,949	13.52	53,204	13.56	- 48	662,706	647,412	- 2
Redhead	10,079	1.73	8,974	2.29	- 12	43,108	59,860	+ 28
Canvasback	280	0.05	3,846	0.98	+ 93	1,234	27,831	+ 96
Greater scaup	840	0.14	1,496	0.38	+ 44	24,649	24,567	0
Lesser scaup	10,639	1.82	10,043	2.56	- 6	97,340	111,522	+ 13
Ring-necked duck	80,629	13.81	45,726	13.65	- 76	251,356	186,243	- 35
Goldeneye	11,198	1.92	7,051	1.79	- 59	29,540	30,017	+ 2
Bufflehead	17,358	2.97	12,607	3.21	- 38	101,118	91,175	- 11
Ruddy duck	280	0.05	214	0.05	- 31	10,970	12,243	+ 10
Scoters	0	0.00	0	0.00	0	1,585	3,599	+ 56
Hooded merganser	8,679	1.49	7,478	1.91	- 16	38,201	41,645	+ 8
Other mergansers	1,120	0.19	214	0.05	- 423	8,139	7,534	- 8
Total Duck Harvest (retrieved kill)	584,000 ± 14%		392,300 ±14%		- 49	6,522,900 ± 6%	6,121,500 ± 6%	- 7

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

Table 2. Top 10 states in number of **adult duck hunters**, 2009, and number of hunter-days and retrieved duck kill, in each (from: Raftovich, R.V., K.A. Wilkins, K.D. Richkus, S.S. Williams, and H.L. Spriggs. 2010. Migratory Bird Hunting activity and harvest during the 2008 and 2009 hunting seasons: Preliminary estimates. U.S. Fish and Wildlife Service, Laurel, Maryland. USA July 2010. 63 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
Louisiana	80,100 ± 6%	691,400 ± 10%	1,848,400 ± 12%	23.1 ± 13%
Texas	67,400 ± 20%	410,200 ± 28%	979,800 ± 20%	14.5 ± 28%
Minnesota	61,100 ± 10%	335,800 ± 14%	392,300 ± 14%	6.4 ± 17%
Arkansas	55,000 ± 9%	435,600 ± 12%	1,103,900 ± 18%	20.1 ± 20%
Wisconsin	51,500 ± 11%	330,800 ± 11%	322,600 ± 11%	6.3 ± 15%
California	51,300 ± 11%	511,300 ± 16%	1,441,200 ± 20%	28.1 ± 23%
Michigan	41,100 ± 10%	251,100 ± 12%	308,900 ± 13%	7.5 ± 16%
Missouri	35,200 ± 13%	234,600 ± 21%	398,700 ± 25%	11.3 ± 28%
Illinois	35,100 ± 10%	317,200 ± 14%	425,200 ± 18%	12.1 ± 21%
North Dakota	30,600 ± 7%	165,900 ± 15%	473,000 ± 19%	15.5 ± 21%
Mississippi Flyway		3,455,500 ± 5%	6,121,500 ± 6%	
United States		6,771,900 ± 4%	13,139,800 ± 4%	

Table 3. Top 10 states in number of **adult goose hunters**, 2009, and number of hunter-days and retrieved goose kill, in each (from: Raftovich, R.V., K.A. Wilkins, K.D. Richkus, S.S. Williams, and H.L. Spriggs. 2010. Migratory Bird Hunting activity and harvest during the 2008 and 2009 hunting seasons: Preliminary estimates. U.S. Fish and Wildlife Service, Laurel, Maryland. USA July 2010. 63 pp). **Note:** All hunter activity and harvest estimates are preliminary, pending final counts of the number of migratory bird hunters in each state and complete audits of all survey response data.

State	Number of active goose hunters	Goose hunter days afield	Total goose harvest	Seasonal goose harvest per hunter
Minnesota	49,100 ± 11%	252,000 ± 16%	147,700 ± 19%	3.0 ± 22%
Wisconsin	43,400 ± 11%	279,200 ± 17%	97,300 ± 20%	2.2 ± 23%
Texas	36,700 ± 23%	108,900 ± 26%	196,500 ± 35%	5.4 ± 42%
Michigan	35,400 ± 10%	214,700 ± 14%	162,300 ± 15%	4.6 ± 18%
California	33,400 ± 12%	251,100 ± 15%	150,300 ± 18%	4.5 ± 20%
Pennsylvania	30,500 ± 12%	167,500 ± 16%	169,100 ± 18%	5.5 ± 22%
Illinois	29,100 ± 11%	223,400 ± 14%	167,700 ± 16%	5.8 ± 20%
Maryland	24,200 ± 9%	136,800 ± 13%	169,700 ± 13%	7.0 ± 16%
Ohio	20,900 ± 19%	138,900 ± 21%	82,600 ± 18%	4.0 ± 26%
North Dakota	20,700 ± 8%	98,200 ± 15%	136,700 ± 37%	6.6 ± 38%
Mississippi Flyway		1,773,900 ± 6%	1,163,400 ± 8%	
United States ^b		3,789,800 ± 4%	3,327,000 ± 5%	

^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 2009 CANADA GOOSE HUNT IN MINNESOTA

David P. Rave, Wetland Wildlife Populations and Research
Margaret H. Dexter, Wildlife Policy and Research Unit
John Giudice, Biometrics Unit

The September Canada goose season in Minnesota was 5-22 September 2009 (18 days). Beginning in 2007 and continuing through 2009, a 7-day (16 - 22 Sep) experimental season addition was added in the Northwest Goose Zone (Figure 1). The U.S. Fish and Wildlife Service had approved the 7-day season extension in other goose zones in Minnesota after a 3-year experimental season from 1999-2001 (Maxson et al. 2003).

During the September season the daily bag limit was 5 Canada geese per day statewide. 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 Goose Zone, in the Carlos Avery Wildlife Management Area and in the Swan Lake Area. Within the Twin Cities Metro Zone, and goose refuges open to goose hunting, hunting was not permitted from public road right-of-ways. Goose hunters were required to obtain a \$4.00 permit to participate in the September season.

This report documents results of the 2009 September goose hunter mail questionnaire survey (Appendix A).

METHODS

Permittees were randomly selected to receive a post-season hunter survey. Questionnaires were sent to 3,103 permit holders 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. Hunters were asked to indicate the number of days during the September season that they hunted over water, and not over water. Finally, the questionnaire asked whether hunters hunted in the Northwest Zone during the final week of the season (16 – 22 Sep), and how many days and how many geese they shot and retrieved during that week.

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 35,418 Special Canada Goose Season permits were sold prior to 23 September, 2009. Response rate to the survey was 57.8%. Among those respondents, 71.1% 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 3.0 to 3.7 days and retrieved 2.0 to 4.4 geese, depending upon their hunt zone (Table 1). Overall, the success rate for active hunters was 64.4%.

The survey estimates that 88,381 Canada geese were harvested during the 2008 September season with approximately 62% of the harvest in the Remainder Zone and 13% in the West Zone (Table 1). This harvest pattern has remained rather consistent during the 2000-2009 September seasons (Table 2). Prior to the implementation of the Harvest Information Program, the U.S. Fish and Wildlife Service adjusted 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 2009 retrieved harvest of 74,947.

We asked hunters how many days they hunted overwater and how many days they hunted away from water. A total of 36 % of hunters statewide hunted over water, and 28% of all days spent hunting during the September season were overwater (Table 3). We did not ask how many birds were shot overwater.

Of those hunters who indicated that they hunted in the Northwest Zone, 54% reported hunting during the final week of the season, Sep 16 – 22, 2009. This equates to 543 hunters, 1295 hunter days, and a retrieved harvest of 1,692 geese during the experimental season (Sep 16 – 22) in the Northwest zone.

LITERATURE CITED

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- VOELZER, J. F., E. Q. LAUXEN, S. L. RHOADES, and K. D. NORMAN, editors. 1982. Waterfowl status report 1979. U.S.D.I. Fish Wildl. Ser. Spec. Sci. Rep. - Wildl. No. 246. 96pp.

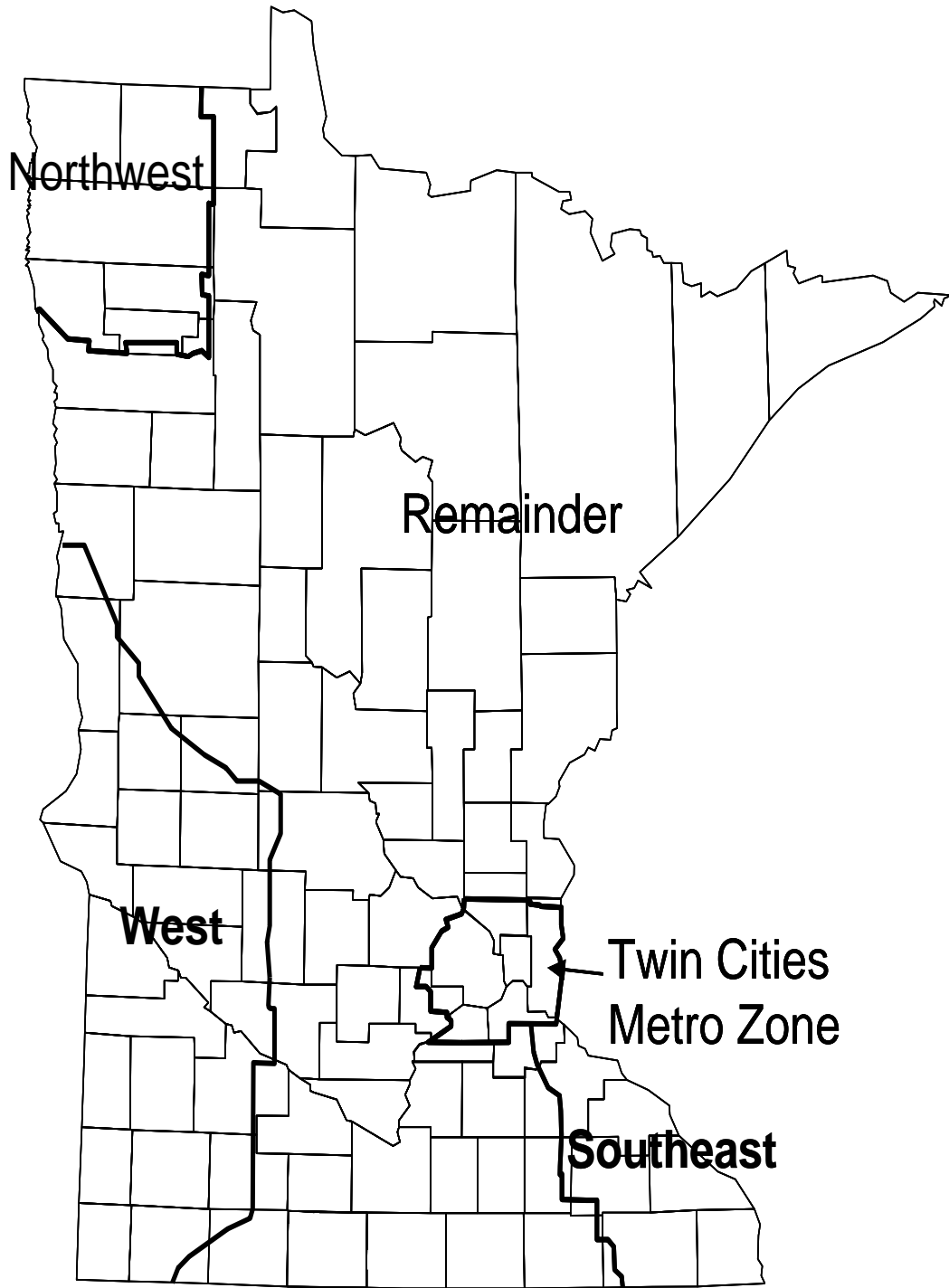


Figure 1. September season Goose Zones in Minnesota.

Table 1. Permit sales, hunter activity, and harvest^a by zone during the September Canada Goose season (5-22 September) in Minnesota, 2009.

Parameter	Twin Cities					Total
	Northwest	West	Southeast	Metro	Remainder	
ALL ZONES						
Total permits sold						35,418
Questionnaires delivered						3,103
Useable questionnaires returned						1,700
% responding						57.8
Active hunters						1,209
% active hunters						71.1
BY ZONE						
% Distribution of hunters by primary hunt zone	4.0	20.3	3.3	16.7	60.2	100
% successful	70.8	55.7	67.5	66.3	65.7	64.4
Days/active hunter	3.7	3.1	3.0	3.7	3.6	3.7
Geese/active hunter	4.4	2.0	2.4	3.0	3.2	3.1
Unretrieved harvest/active	0.65	0.27	0.45	0.37	0.41	0.41
% unretrieved harvest	12.7	11.9	15.7	10.9	11.4	11.6
EXPANDED:						
Active hunters	1,001	5,126	834	4,209	15,168	25,189
Hunter days	3,692	15,879	2,461	15,649	54,630	92,298
Retrieved harvest	4,442	10,294	2,023	12,794	48,609	78,151
Est. unretrieved harvest	647	1,397	376	1,563	6251	10,230
Total harvest	5,089	11,690	2,398	14,357	54,859	88,381

^aHarvest estimates not adjusted for memory/exaggeration bias.

Table 2. Retrieved harvest estimates by zone during the September Canada Goose season in Minnesota, 2000 – 2009.

Year	Northwest	West	Southeast	Twin Cities Metro	Remainder	Total Geese Harvested	Number of Hunters	Geese/Day/Hunter	Total Geese/Hunter
2000	2,750	18,909	1,183	15,594	51,685	90,121	33,202	0.63	2.71
2001	2,047	27,663	538	8,164	62,608	101,021	28,265	0.82	3.57
2002	1,568	22,075	848	8,504	50,769	83,764	26,089	0.68	3.20
2003	2,805	17,779	2,357	9,890	48,157	80,988	30,415	0.74	2.66
2004	4,326	16,843	1,197	11,090	56,480	89,936	29,657	0.80	3.03
2005	4,888	15,304	1,717	11,139	61,218	94,266	27,865	0.89	3.38
2006	6,826	17,987	1,461	11,844	53,321	91,439	28,405	0.86	3.22
2007	7,948	14,952	1,469	11,702	58,243	94,314	25,379	0.91	3.72
2008	5,530	16,168	2,580	13,656	62,827	100,748	27,392	0.98	3.73
2009	4,442	10,294	2,023	12,794	48,609	78,151	25,189	0.85	3.10

Table 3. Percent of Hunters that Reported Hunting ≥ 1 Day Overwater, and percent of total days hunted overwater, during the September Canada Goose season in Minnesota, 2009.

Zone	% of Hunters that Hunted Overwater	% of Days Spent Hunting Overwater
North West	4.7	2.8
South East	56.4	47.0
Twin Cities Metro	39.3	31.7
West	39.7	28.3
Remainder	35.9	27.3
All	36.2	27.9

2009 September Special Canada Goose Season Hunter Survey

You are being asked to provide information to help us evaluate the harvest of Canada geese in Minnesota during September 5-22, 2009. Your cooperation is important. Please return this survey card even if you did not hunt Canada geese. THANK YOU! Dave Schad, Director, Division of Fish and Wildlife, MN DNR.

1. Did you hunt during the September 5-22, 2009 Special Canada Goose season?
 Yes No (Please check one.)
 If NO, please check no and return the survey. Thank you. If YES, please continue.

2. For each zone you hunted in (please see attached map), please indicate the number of days you hunted and the total number of geese you **personally** shot and retrieved (do not include information from other members in your party).

Goose Zone/Season (see map for goose-zone boundaries)	Number of days hunted	Total geese personally shot and retrieved	Total geese personally knocked down but <u>not</u> retrieved
Northwest <i>If you hunted the Northwest Zone, please see question 4.</i>			
Southeast			
Twin Cities Metro			
West (includes West Central Zone)			
Anywhere in the Remainder of State			

3. Please indicate the number of days during the 2009 Special Canada Goose season that you hunted geese:
 - a) Overwater, (e.g. with decoys floating in or along the shore of a wetland or pass shooting next to a wetland) _____ days hunted
 - b) Not overwater (e.g. field shooting) _____ days hunted

4. If you indicated that you hunted in the **Northwest Goose Zone** in question 2:
 - a) Did you hunt Canada geese in the **Northwest Goose Zone** during the **last week** of the season (**Wednesday, September 16, 2009 through Tuesday, September 22, 2009**)?
 Yes No
 - b) How many days did you hunt and how many geese did you personally shoot and retrieve in the **Northwest Goose Zone** during the final week of the season (**Wednesday, September 16, 2009 through Tuesday, September 22, 2009**)?
 _____ days hunted
 _____ geese harvested

If you have general comments you may write them here (continue on back if necessary). If you have questions and desire a specific response, please contact your local DNR Wildlife Office or the DNR Information Center (Minnesota DNR, 500 Lafayette Road, St. Paul, MN 55155-4020, 1-888-646-6367). Thank you.

2010 LIGHT GOOSE CONSERVATION ORDER HARVEST IN MINNESOTA

David Rave and Margaret Dexter, Wildlife Populations and Research Unit

INTRODUCTION

This report documents results of the 2010 Light Goose Conservation Order hunter mail questionnaire survey.

METHODS

Minnesota held a light goose Conservation Order harvest from 1 March - 30 April 2010. 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 Table 1. Second and third mailings were sent to non-respondents after one month had elapsed.

RESULTS AND DISCUSSION

A total of 952 permits was issued and 671 responses (72 %) to the questionnaire were obtained (Table 2). In calculating harvest estimates, we assumed that the 281 non-respondents participated in the conservation action and took light geese in the same manner as respondents (i.e., tallies were expanded by 1.42). Anecdotal reports suggest fewer light geese were present in Minnesota for fewer days during spring 2010 than spring 2009, which resulted in fewer hunters and less geese harvested in 2010 than 2009. Harvest was again concentrated in the southwest portion of the state with some also being taken in west-central Minnesota. Three-hundred eighty nine people attempted to take light geese during the 61-day conservation order period. Active participants pursued light geese for 1,475 days and 559 light geese were shot and retrieved. This was an average retrieved take of 1.4 geese per active participant. Another 70 light geese were reported wounded and not retrieved.

Unplugged shotguns were used by 175 (44.9%) individuals to take 348 (62.2%) geese, of which 131 (23.4%) were taken with the 4th, 5th, or 6th shell. Electronic calls were used by 191 (25.9%) participants to take 192 (34.3%) light geese. During the 1/2 hour after sunset period, 87 (15.6%) geese were harvested by 154 (39.7%) active hunters.

ACKNOWLEDGMENTS

J. Giudice, MNDNR Biometrics Unit analyzed all data for this report.

Table 1. Questions asked on Light Goose Conservation Order hunter mail questionnaire.

1. Did you hunt light geese in Minnesota during March 1 – April 30, 2010?
 2. How many days did you hunt light geese in Minnesota during March 1 – April 30, 2010?
 3. In what County did you hunt light geese most often during March 1 – April 30, 2010?
 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?
 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 4th, 5th, or 6th shell?
 9. Did you hunt light geese in Minnesota with the aid of an electronic caller?
 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?
 12. If yes, how many light geese did you shoot and retrieve during the ½ hour after sunset period?
-

Table 2. Summary of Light Goose Conservation Order harvest in Minnesota, 2001 - 2010

Statistic	Year									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total permits sold	1,128	1,997	1,438	1,424	1,383	1,363	1,292	1,406	1,670	952
Useable returns	769	1,375	1,071	1,095	998	955	921	910	1,057	671
Response rate (%)	68.0	69.0	74.0	77.0	72.0	70.0	71.0	65.0	63.0	72.3
Active hunters (%)	34.8	60.5	38.5	48.5	44.7	37.3	39.8	54.9	66.0	40.8
Estimated total hunters	393	1,209	553	690	618	516	514	773	1,103	389
Estimated hunter days	2,112	5,517	2,600	3,372	2,643	2,665	2,302	3,404	4,647	1,475
Mean days/hunter	5.4	4.6	4.7	4.9	4.3	5.2	4.5	4.4	4.2	3.8
Estimated harvest (shot & retrieved)	316	3,516	2,005	2,735	1,395	1,360	1,786	2,409	4,366	559
Mean harvest/hunter	0.8	2.9	3.6	4.0	2.3	2.6	3.5	3.1	4.0	1.4
Estimated crippling losses	19	637	253	315	150	163	172	302	640	70
Percent of hunters using unplugged guns	49.2	46.4	50.6	48.2	44.0	42.3	43.6	46.7	46.8	44.9
Est. number hunters using unplugged guns	193	560	280	333	272	215	224	361	516	175
Est. number geese shot with unplugged guns	129	2,137	996	1,385	777	689	1,032	1,275	2,413	348
Est. harvest with shell 4-5-6	68	615	401	491	269	287	277	339	822	131
Percent of hunters using electronic calls	14.3	11.8	15.7	19.3	17.8	14.4	17.1	19.1	23.5	25.9
Est. number hunters using e-calls	56	142	87	133	110	73	88	148	260	101
Est. harvest while using e-calls	103	512	474	326	268	280	329	566	1,171	192
Percent of hunters hunting 1/2-hr after sunset	35.9	45.5	41.2	38.4	42.7	43.9	38.3	42.3	43.1	39.7
Est. number hunting after 1/2-hr sunset	141	550	228	265	264	223	197	326	475	154
Est. harvest 1/2-hr after sunset	43	841	267	311	242	246	209	511	713	87

FALL WILD TURKEY HARVEST REPORT, 2009

Eric Dunton, Farmland Wildlife Populations and Research Group

Minnesota's fall turkey hunting season is managed with a quota system similar to the spring turkey hunting season. Permits are allocated across 67 permit areas (PAs; Figure 1) during 2, 5-day time periods in PAs 156 - 467 and 1, 30-day time period in PA 601.

Three types of permits were available to hunters: (1) general lottery permits in which applicants or parties of up to 4 hunters applied for specific PA and time period, (2) landowner permits in which up to 20% of permits for each PA and time period were reserved for landowners or tenants who lived on 40 acres or more of land within the PA, and (3) surplus permits were offered in under-subscribed permit areas and time periods to hunters who applied in the lottery, but were unsuccessful. General lottery and landowner permits 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 permit. If available, surplus permits could be purchased on a first-come, first-served basis. Permit holders were allowed to harvest 1 turkey of either sex during the fall season.

Fall turkey hunting opportunity was increased significantly since 2007 with the addition of 4,840 available permits (108% increase) and 35 new permit areas. In 2009, over 5,000 permits were issued, and hunters registered 1,163 turkeys, similar to the 2008 season (Table 1; Figure 2). Hunter success averaged 23% but varied among PAs from 0% in PAs 156, 183, 235, 450, 457, and 458 to 46% in PAs 244 and 454 (Table 2). The majority of permits issued were general lottery (94%), followed by landowner permits (4%), and surplus (2%; Tables 3 – 4).

In response to wild turkey range expansion, the number of PAs open to fall turkey hunting was increased by 35 since 2007. For the second year a 30-day season was held in PA 601 to increase hunter participation and turkey harvest in response to an increasing number of urban/nuisance complaints in the metropolitan area. The addition of 800 permits in PA 601 plus 35 new PAs accounted for 38% of the registered harvest since 2007. Expanded permit allocation in traditional PAs accounted for the remainder of the increase in the number of hunters and registered harvest. Hunter success has remained stable (range 22-24%) since 2004 (Table 1).

Table 1. Permits available and issued, applicants, registered harvest, and hunter success rates for fall wild turkey hunting seasons 1990 – 2009, Minnesota.

Year	Permits available	Applicants	Permits issued	Registered harvest	Hunter success (%) ^a
1990	1000	4522	951	326	34
1991	2200	2990	2020	552	27
1992	2200	2782	2028	588	29
1993	2400	3186	2094	605	29
1994	2500	3124	2106	601	29
1995	2500	3685	2125	648	30
1996	2500	4453	2289	685	30
1997	2580	4574	2378	698	29
1998	2710	4526	2483	828	33
1999	2890	5354	2644	865	33
2000	3090	5263	2484	735	30
2001	2870	4501	2262	629	28
2002	3790	5180	2945	594	20
2003	3870	5264	2977	889	30
2004	4380	5878	3277	758	23
2005	4410	4542	2978	681	23
2006	4290	4167	2802	618	22
2007	4490	4464	2837	695	24
2008	7560	5834	4981	1187	24
2009	9330	7738	5019	1163	23

^a Success rates not adjusted for non-participation.

Table 2. Permits available and issued, registered harvest, success, and historic success rates by permit area for the 2009 fall wild turkey season, Minnesota.

Permit area	Permits		2009		Historic mean ^b	
	Available	Issued	Registered harvest	Success (%) ^a	Success (%)	<i>n</i>
156	20	14	0	0	0	1
157	100	74	14	19	21	2
159	20	11	1	9	9	1
183	10	9	0	0	0	1
213	100	74	13	18	22	2
214	200	114	42	37	34	2
215	300	187	45	24	27	2
218	200	133	33	25	25	1
219	100	68	6	9	9	1
221	200	86	19	22	21	2
222	200	75	19	25	28	2
223	200	128	26	20	19	2
225	200	99	15	15	15	1
227	300	119	31	26	25	3
229	50	24	3	13	22	2
235	20	11	0	0	0	1
236	300	167	41	25	26	7
239	300	170	56	33	26	2
240	200	120	33	28	29	2
241	20	15	6	40	40	1
243	20	13	4	31	31	1
244	40	28	13	46	46	1
248	100	60	11	18	24	2
249	100	50	8	16	19	2
262	40	7	5	71	43	2
338	200	154	43	28	24	7
339	200	111	22	20	20	7
341	500	267	72	27	26	7
342	350	157	41	26	23	7
343	300	224	51	23	27	7
344	200	116	18	16	20	7
345	200	56	8	14	18	7
346	300	149	33	22	24	7
347	200	98	19	19	25	7

Table 2. Continued

Permit area	Permits		2009		Historic mean ^b	
	Available	Issued	Registered harvest	Success (%) ^a	Success (%)	<i>n</i>
348	250	144	31	22	25	7
349	450	124	26	21	22	7
412	40	19	8	42	38	2
416	20	14	4	29	29	1
417	30	23	5	22	22	1
420	40	9	4	44	36	4
422	50	29	15	52	45	4
425	40	33	6	18	24	4
427	20	6	1	17	17	1
428	30	25	4	16	24	2
431	20	9	4	44	23	4
433	20	18	3	17	22	4
440	20	16	5	31	39	2
442	250	188	59	31	27	7
443	100	59	8	14	17	7
446	20	11	2	18	32	4
447	20	14	3	21	12	4
448	30	19	3	16	23	7
449	30	15	3	20	29	6
450	20	9	0	0	9	4
451	20	5	1	20	20	1
454	20	13	6	46	46	1
457	20	7	0	0	0	1
458	20	1	0	0	0	1
459	20	12	1	8	3	2
461	250	194	34	18	29	7
462	240	169	31	18	25	7
463	30	23	10	43	32	2
464	80	39	5	13	24	7
465	80	23	10	43	24	7
466	160	90	25	28	28	7
467	100	76	12	16	20	7
601 ^c	1000	395	83	21	22	7
Total	9330	5019	1163	23	24	

^a Success rates not adjusted for non-participation.

^b Mean success rate (%) over all fall turkey seasons (*n*) between 2003 – 2009 or since a permit area opened for fall turkey hunting.

^c Permit Area 601 consisted of 1, 30-day season.

Table 3. Permits available and issued by type, registered harvest, and success by permit area during Time Period A for the 2009 fall wild turkey season, Minnesota.

Permit area	Permits Available	Permits issued by type				Registered harvest	Success (%) ^a
		General	Landowner	Surplus	Total		
156	10	5	1	0	6	0	0
157	50	30	5	0	35	8	23
159	10	8	0	0	8	0	0
183	5	3	0	0	3	0	0
213	50	30	9	0	39	5	13
214	100	68	7	0	75	21	28
215	150	118	4	1	123	26	21
218	100	71	7	0	78	18	23
219	50	36	2	0	38	3	8
221	100	52	4	3	59	13	22
222	100	50	0	2	52	12	23
223	100	62	4	0	66	13	20
225	100	67	2	0	69	12	17
227	150	72	1	1	74	16	22
229	25	14	0	0	14	2	14
235	10	10	0	0	10	0	0
236	150	114	1	0	115	26	23
239	150	100	6	0	106	34	32
240	100	70	3	0	73	17	23
241	10	5	2	0	7	2	29
243	10	6	2	0	8	3	38
244	20	13	1	0	14	8	57
248	50	27	10	0	37	6	16
249	50	28	5	0	33	5	15
262	20	2	0	0	2	2	100
338	100	75	7	0	82	19	23
339	100	56	3	2	61	12	20
341	250	149	6	4	159	33	21
342	175	84	2	0	86	28	33
343	150	117	5	0	122	25	20
344	100	49	0	4	53	12	23
345	100	25	2	1	28	4	14
346	150	96	8	1	105	23	22
347	100	48	5	0	53	11	21

Table 3. Continued

Permit area	Permits available	Permits issued by type				Registered harvest	Success (%) ^a
		General	Landowner	Surplus	Total		
348	125	73	3	1	77	18	23
349	225	84	1	0	85	17	20
412	20	9	3	0	12	4	33
416	10	5	2	0	7	2	29
417	15	11	0	0	11	3	27
420	20	4	2	0	6	4	67
422	25	20	1	0	21	12	57
425	20	14	2	0	16	3	19
427	10	3	0	0	3	1	33
428	15	12	1	0	13	2	15
431	10	5	1	0	6	1	17
433	10	8	1	0	9	1	11
440	10	5	1	0	6	3	50
442	125	96	5	0	101	33	33
443	50	35	0	1	36	7	19
446	10	5	0	0	5	1	20
447	10	9	0	0	9	1	11
448	15	13	0	0	13	1	8
449	15	8	0	0	8	2	25
450	10	4	1	0	5	0	0
451	10	5	0	0	5	1	20
454	10	9	0	0	9	4	44
457	10	4	2	0	6	0	0
458	10	0	0	0	0	0	0
459	10	10	0	0	10	1	10
461	125	101	4	0	105	17	16
462	120	100	5	0	105	16	15
463	15	13	0	0	13	8	62
464	40	24	0	0	24	1	4
465	40	11	0	0	11	6	55
466	80	49	2	2	53	14	26
467	50	43	1	0	44	9	20
Total	4165	2552	152	23	2727	612	22

^a Success rates not adjusted for non-participation

Table 4. Permits available and issued by type, registered harvest, and success by permit area during Time Period B for the 2009 fall wild turkey season, Minnesota.

Permit area	Permits available	Permits issued by type				Registered harvest	Success (%) ^a
		General	Landowner	Surplus	Total		
156	10	6	2	0	8	0	0
157	50	38	1	0	39	6	15
159	10	3	0	0	3	1	33
183	5	5	1	0	6	0	0
213	50	32	3	0	35	8	23
214	100	34	3	2	39	21	54
215	150	61	2	1	64	19	30
218	100	48	7	0	55	15	27
219	50	30	0	0	30	3	10
221	100	25	1	1	27	6	22
222	100	23	0	0	23	7	30
223	100	58	0	4	62	13	21
225	100	29	1	0	30	3	10
227	150	41	2	2	45	15	33
229	25	10	0	0	10	1	10
235	10	1	0	0	1	0	0
236	150	47	1	4	52	15	29
239	150	56	3	5	64	22	34
240	100	38	2	7	47	16	34
241	10	7	1	0	8	4	50
243	10	5	0	0	5	1	20
244	20	14	0	0	14	5	36
248	50	21	0	2	23	5	22
249	50	17	0	0	17	3	18
262	20	5	0	0	5	3	60
338	100	69	2	1	72	24	33
339	100	46	0	4	50	10	20
341	250	106	1	1	108	39	36
342	175	70	0	1	71	13	18
343	150	96	4	2	102	26	25
344	100	58	2	3	63	6	10
345	100	24	1	3	28	4	14
346	150	42	0	2	44	10	23
347	100	44	1	0	45	8	18

Table 4. Continued

Permit area	Permits available	Permits issued by type				Registered harvest	Success (%) ^a
		General	Landowner	Surplus	Total		
348	125	65	2	0	67	13	19
349	225	39	0	0	39	9	23
412	20	7	0	0	7	4	57
416	10	7	0	0	7	2	29
417	15	10	2	0	12	2	17
420	20	3	0	0	3	0	0
422	25	8	0	0	8	3	38
425	20	17	0	0	17	3	18
427	10	3	0	0	3	0	0
428	15	11	1	0	12	2	17
431	10	3	0	0	3	3	100
433	10	9	0	0	9	2	22
440	10	7	3	0	10	2	20
442	125	82	5	0	87	26	30
443	50	23	0	0	23	1	4
446	10	4	2	0	6	1	17
447	10	5	0	0	5	2	40
448	15	6	0	0	6	2	33
449	15	7	0	0	7	1	14
450	10	4	0	0	4	0	0
451	10	0	0	0	0	0	0
454	10	4	0	0	4	2	50
457	10	1	0	0	1	0	0
458	10	1	0	0	1	0	0
459	10	2	0	0	2	0	0
461	125	86	3	0	89	17	19
462	120	62	2	0	64	15	23
463	15	10	0	0	10	2	20
464	40	15	0	0	15	4	27
465	40	9	0	3	12	4	33
466	80	33	1	3	37	11	30
467	50	28	3	1	32	3	9
Total	4165	1780	65	52	1897	468	25

^a Success rates not adjusted for non-participation

2009 Permit Areas (PAs) Open to Turkey Hunting

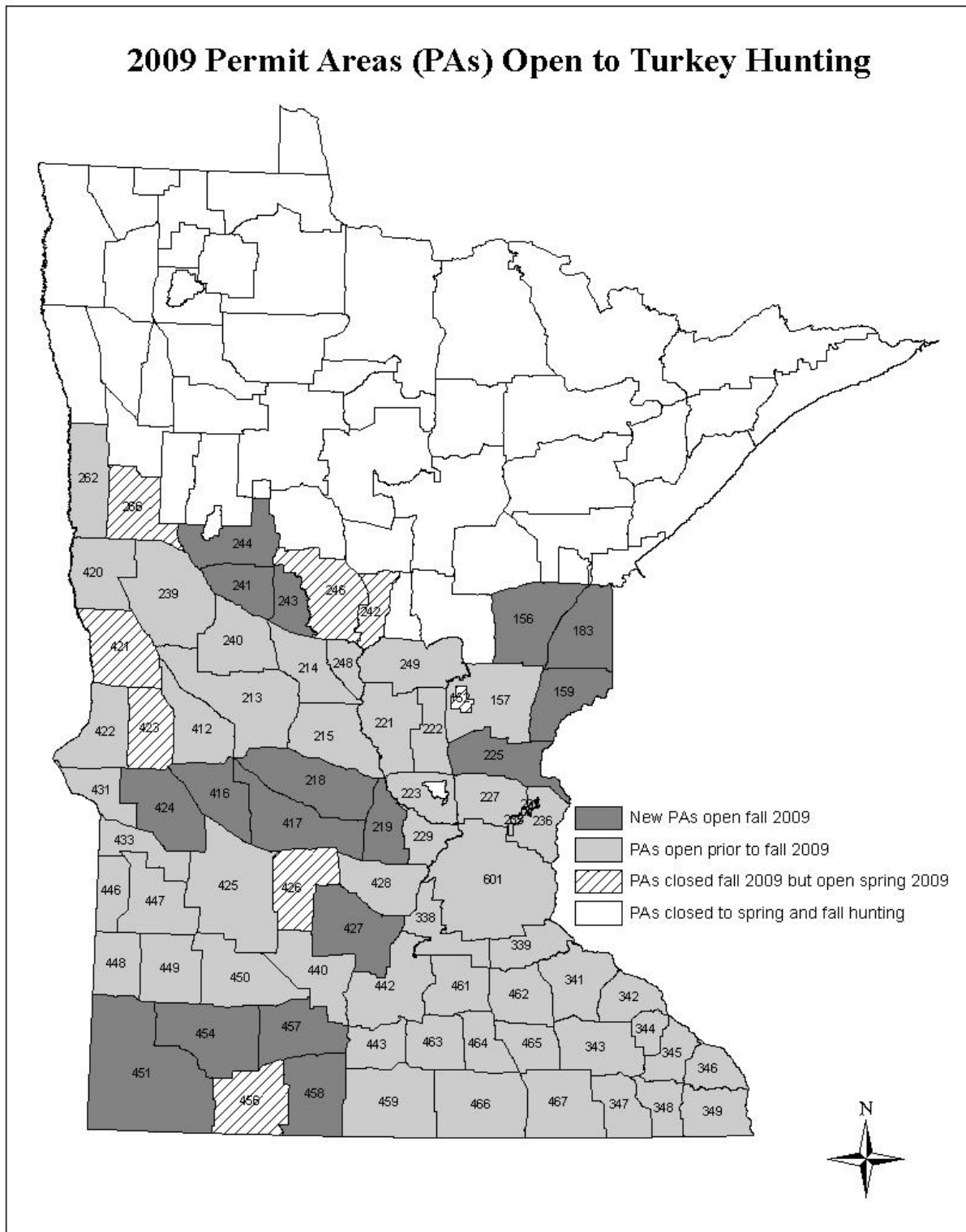


Figure 1. Permit Areas (PAs) open to hunting for the 2009 fall turkey hunting season, Minnesota.

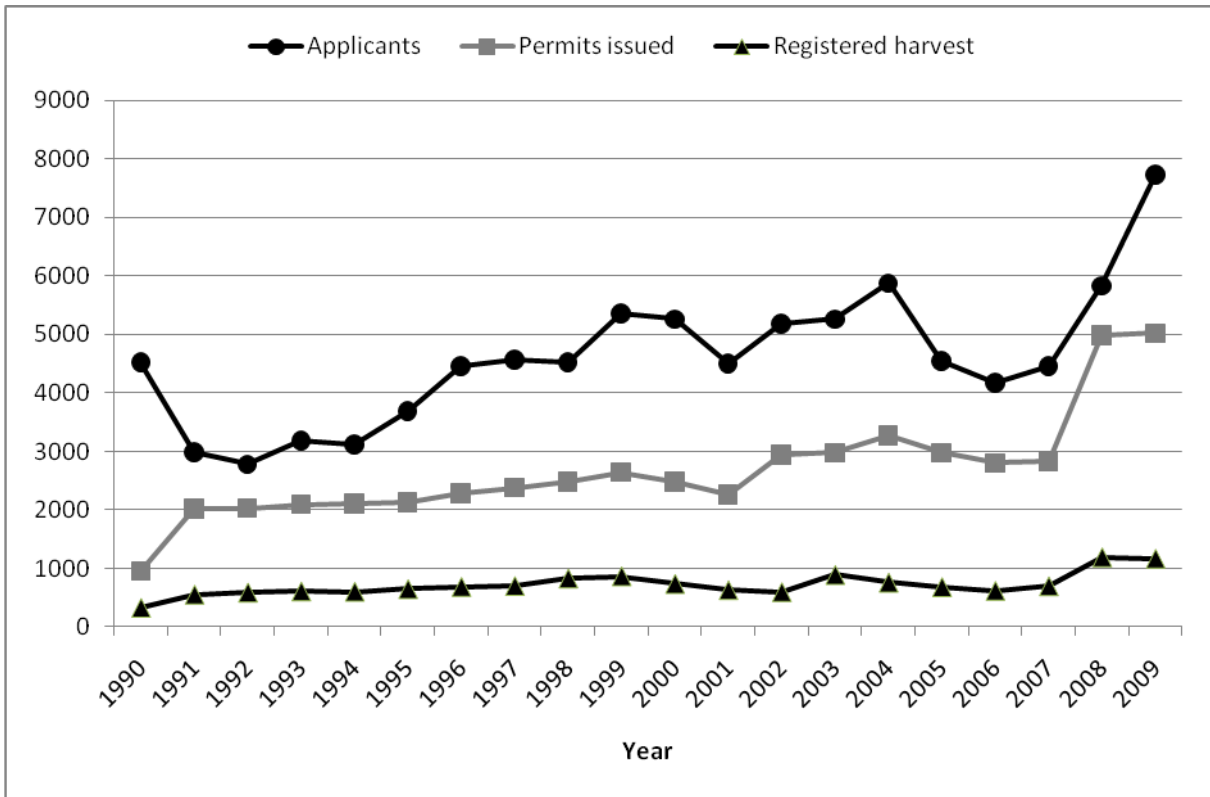


Figure 2. Applicants, permits issued, and registered harvest for fall wild turkey seasons 1990 – 2009, Minnesota.

SPRING 2010 WILD TURKEY HARVEST REPORT

Eric Dunton, Farmland Wildlife Populations and Research Group

In Minnesota, the spring wild turkey hunting season is designed to regulate harvest and distribute hunting pressure by allocating permits across 77 permit areas (PAs, Figure 1) and 8 time periods using a quota system. Hunters interested in pursuing wild turkeys were required to apply for a permit through a drawing based on a system of preference. Preference is determined by the number of years a valid but unsuccessful application has been submitted since last receiving a permit. Hunters may apply individually or in a group of up to 4 hunters. Successful applicants are notified through mail, and unsuccessful applicants are awarded a preference point. The goal of this system is to provide quality turkey hunting opportunities where turkey populations can sustain harvest.

For the 2010 spring hunting season there were 4 notable regulation changes: (1) all youth age 17 and younger by April 14, 2010 could purchase a youth permit over the counter to hunt any single time period and permit area of their choice; (2) hunters had the option to register their turkey over the phone, using the internet, or at a registration station; (3) the second choice option was eliminated from the application; and (4) the number of permits available for the last 2 time periods (G and H) was increased by 110% from 10,582 (2009) to 22,250 (2010). All surplus licenses remaining after the drawing were offered over the counter in mid-March on a first-come, first-served basis.

Eight types of hunting licenses were available to resident turkey hunters: (1) general lottery permit in which an applicant or a group of up to 4 hunters applied for a specific PA and time period; (2) landowner permit in which up to 20% of permits for each PA and time period were reserved for landowners or tenants who lived on 40 acres or more of land within the PA; (3) youth permit; (4) archery permit which could be purchased for the last 2 time periods of any PA with 50 or more permits per period; (5) youth archery; (6) surplus permits; (7) youth surplus; and (8) military permit.

During 2010 we received 51,312 applications for 55,982 permits (Table 1, Figure 2). More than 46,500 general lottery, landowner, youth, and surplus permits were issued to hunters, and more than 2,900 additional permits were issued to archers (Table 1). Hunters registered almost 13,500 turkeys, an increase of 10% from 2009 and the highest turkey harvest on record (Table 1, Figure 2). Hunter success averaged 29% (Table 1), which is below the 5-year average of 32%. Hunter success by PA ranged from 13% (PA 459) to 40% (PA 422; Table 2). Hunter success varied by license type from 7% (archery) to 31% (youth), 36% (general lottery and landowner), and 42% (surplus). Similar to the 10-year average, hunter success rates were highest during the first 2 time periods (Table 3). The majority of general lottery (71%), landowner (92%), and youth (79%) permits were issued during time periods A – D, while the majority of surplus permits (98%) were issued during time periods E – H (Table 4). The 8,490 permits issued to resident and non-resident youth hunters (general lottery, surplus, archery, and mentored) in 2010 was a 69% increase over the 5,024 youth permits issued in 2009. Approximately 10% (1,398) of harvested turkeys were registered using the phone registration system, 12% (1,662) through the internet, and 77% (10,407) at a registration station.

Among turkey management units (TMU), success rates in 2010 were relatively uniform (range 26-32%) except in TMUs A and B, which were slightly lower (23%, Table 5). A plot of success rates in TMUs A and B suggests that populations appear to be fluctuating around a stable mean or declining slowly (Figure 3). Success rates during 2010 declined from the average in all TMUs (Table 5, Figure 3). Although the uniform decline in success rates in 2010 may be an artifact of the unusually large increase in permits issued in 2010 (Figure 2), the trend in hunter success should be carefully monitored into the future.

Overall weather conditions for the 2010 spring turkey hunting season were favorable across much of the turkey range in Minnesota. April and May were relatively dry across much of Minnesota, except for the Red River Valley where major flooding occurred in late March and continued through April (Minnesota Climatology Working Group 2010). April temperatures were above average and May temperatures were near historic averages (Minnesota Climatology Working Group 2010). Although favorable weather generally contributes to increased harvest, the continued increase in harvest can be partially attributed to the increase in the number of permits available (i.e., 32% overall increase in the number of permits available with the majority of increase in time Periods G and H and a 10% increase in registered harvest) from 2009, 1 new PA open to hunting (PA 247), and youth hunters being able to purchase permits over the counter. Increased permits and permit areas resulted in more opportunities for hunters to harvest turkeys.

LITERATURE CITED

DUNTON, E., AND J. SNYDERS. 2009. Fall wild turkey population survey, 2008. Minnesota Department of Natural Resources, St. Paul, MN, Agency Report.

MINNESOTA CLIMATOLOGY WORKING GROUP. 2010. Climate journal. <http://climate.umn.edu/> Accessed 8 July 2010.

Table 1. Spring applicants, permits available and issued, and registered harvest from 1978 – 2010 for all spring wild turkey hunting seasons, Minnesota.

Year	Applicants	Permits			Registered harvest	Success (%) ^a
		Available	Issued	Issued (%)		
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
1991	15,918	9,170	8,607	93.9	1,724	20.0
1992	16,401	9,310	9,051	97.2	1,691	18.7
1993	17,800	9,625	9,265	96.3	2,082	22.5
1994	19,853	9,940	9,479	95.4	1,975	20.8
1995	21,345	9,975	9,550	95.7	2,339	24.5
1996	23,757	12,131	10,983	90.5	2,841	25.9
1997	25,958	12,530	11,610	92.7	3,302	28.4
1998	29,727	14,035	13,229	94.3	4,361	33.0
1999	39,957	18,360	16,387	89.3	5,132	31.3
2000	42,022	20,160	18,661	92.6	6,154	33.0
2001	41,048	22,936	21,404	93.3	6,383	29.8
2002	42,415	24,136	22,607	93.7	6,516	28.8
2003	44,415	25,016	22,770	91.0	7,666	33.7
2004	48,059	27,600	25,261	91.5	8,434	33.4
2005	49,181	31,748	27,638	87.1	7,800	28.2
2006	45,704	32,624	27,876	85.4	8,241	29.6
2007 ^b	52,566	33,976	28,320	83.4	9,412	33.2
2008 ^b	51,000	37,992	31,942	84.1	10,994	34.4
2009 ^b	57,692	42,328	36,193	85.5	12,210	33.7
2010 ^b	51,312	55,982	46,548 ^c	83.0	13,467	29.0

^a Success rates not adjusted for non-participation

^b Youth hunt data included

^c 2,910 permits were issued to archery hunters and are not included in this figure.

Table 2. Permits available and issued, registered harvest, success, and historic success rates by permit area for the 2010 spring wild turkey season, Minnesota.

Permit area	Permits		2010		Historic mean ^d	
	Available	Issued ^a	Registered harvest ^b	Success (%) ^c	Success (%)	<i>n</i>
152	80	46	16	35	31	2
156	150	176	57	32	47	2
157	650	738	247	33	46	6
159	240	259	63	24	36	6
183	80	83	12	14	29	2
213	1000	1045	313	30	46	3
214	1000	784	259	33	38	6
215	1180	1224	365	30	43	11
218	1120	1262	442	35	50	3
219	590	670	194	29	31	11
221	700	678	222	33	51	5
222	630	532	148	28	44	5
223	1000	1076	314	29	36	11
225	1440	1216	309	25	27	11
227	1400	1252	333	27	34	11
229	470	396	90	23	25	10
235	240	220	46	21	34	11
236	1560	1277	398	31	39	11
239	1310	1294	363	28	43	8
240	1160	957	320	33	40	5
241	360	294	84	29	42	2
242	80	38	12	32	38	1
243	240	226	72	32	40	2
244	500	496	146	29	34	8
246	300	353	111	31	59	1
247 ^e	80	74	25	34	0	0
248	580	385	110	29	43	6
249	560	543	160	29	32	7
262	180	80	24	30	44	2
266	180	57	14	25	64	1
338	1100	1017	298	29	33	9
339	1070	913	269	29	35	9
341	2210	2105	646	31	34	9
342	2150	1396	375	27	27	9
343	2000	1875	646	34	41	9
344	1250	1001	229	23	27	11

Table 2. Continued

Permit area	Permits		2010		Historic mean ^d	
	Available	Issued ^a	Registered harvest ^b	Success (%) ^c	Success (%)	<i>n</i>
345	1500	915	206	23	22	9
346	2600	1565	413	26	25	11
347	1500	1114	278	25	27	9
348	1650	1231	273	22	25	9
349	3600	2372	513	22	24	11
412	560	486	137	28	42	3
416	240	248	72	29	39	10
417	630	701	222	32	43	3
420	180	74	18	24	37	6
421	112	29	6	21	35	2
422	380	167	66	40	46	11
423	80	13	2	15	21	2
424	140	62	15	24	32	5
425	590	684	202	30	39	6
426	80	39	12	31	24	9
427	180	146	45	31	34	9
428	540	377	124	33	43	9
431	180	112	37	33	41	11
433	240	204	43	21	51	6
440	750	643	209	33	32	11
442	1590	1554	504	32	35	11
443	910	592	156	26	32	11
446	140	109	31	28	39	5
447	140	78	17	22	27	5
448	180	128	35	27	52	6
449	180	183	65	36	47	6
450	180	101	32	32	29	11
451	240	124	25	20	47	7
454	80	87	29	33	34	5
456	80	28	5	18	11	5
457	180	98	27	28	35	11
458	140	49	16	33	30	5
459	300	220	28	13	25	11
461	1280	1159	380	33	34	11
462	1350	1011	367	36	37	9

Table 2. Continued

Permit area	Permits		2010		Historic mean ^d	
	Available	Issued ^a	Registered harvest ^b	Success (%) ^c	Success (%)	<i>n</i>
463	350	301	67	22	30	11
464	470	349	92	26	29	9
465	470	279	83	30	28	9
466	910	594	150	25	32	8
467	690	555	135	24	35	8
601	1550	1632	557	34	39	10

^a 2,910 permits were issued to archery hunters and 97 permits were issued for the Camp Ripley disabled veterans hunt and are not included in these figures

^b 41 turkeys were registered from the Camp Ripley disabled veterans hunt and are not included in these figures

^c Success rates not adjusted for non-participants

^d Mean success rate (%) over all spring turkey seasons (*n*) between 1999 – 2009 or since a permit area boundary change occurred.

^e New permits area for the 2010 spring season

Table 3. Permits available and issued, registered harvest, and success (2010 and mean) by time period for the 2010 spring wild turkey season, Minnesota.

Time period ^a	Permits		2010		2000 – 2009 Mean success (%)
	Available	Issued	Registered harvest	Success (%) ^b	
A	5622	7910	3180	40	43
B	5622	5298	1903	36	39
C	5622	6942	2107	30	31
D	5622	6282	1711	27	29
E	5622	5353	1484	28	33
F	5622	4327	898	21	29
G	11125	7085	1502	21	25
H	11125	3254	634	19	24
Youth hunt ^c					
Z		12	7	58	
Camp Ripley ^d					
802A		6	5	83	
801B		33	11	33	
802B		3	1	33	
801C		43	24	56	

^a A = April 14 – 18, B = April 19 – 23, C = April 24 – 28, D = April 29 – May 3, E = May 4 – 8, F = May 9 – 13, G = May 14 – 20, and H = May 21 – 27

^b Success rates not adjusted for non-participants

^c In 2010 mentored youth hunts are coded to time period A due to regulation change which allowed youth hunters to purchase permits over the counter

^d Disabled veterans hunt

Table 4. Permits available and issued by license type (resident and non-resident) and time period for the spring 2010 wild turkey season, Minnesota.

Time period	Permits available	Permits issued			
		General lottery	Landowner	Surplus	Youth ^b
A	5622	4315	690	35	2870
B	5622	4430	376	88	404
C	5622	4525	378	44	1995
D	5622	4609	194	60	1419
E	5622	2674	53	2225	401
F	5622	1422	23	2611	271
G	11125	2557	46	3731	751
H	11125	767	17	2103	367
Total ^a	55982	25299	1777	10897	8478

^aTotal excludes 97 permits issued for the Camp Ripley disabled veterans hunt

^bTotal excludes 12 permits issued for a mentored youth hunt in PA 343 (Time Period Z)

Table 5. Permits available and issued, registered harvest, success (2010 and mean), and mean finite rate of population change (Dunton and Snyders 2009) by Turkey Management Unit (TMU) for the 2010 spring wild turkey season, Minnesota.

TMU ^{a,b}	Permits		2010		Mean success ^e		Mean finite rate of change ^f	
	Available	Issued ^d	Registered harvest ^d	Success (%)	%	<i>n</i>	λ	99% CI ^g
A	9350	6083	1405	23	24	9	0.99*	(0.94, 1.04)
B	1250	1001	229	23	27	11	0.98	(0.89, 1.07)
C	7860	6490	1945	30	32	9	0.99	(0.91, 1.09)
D	5850	5398	1632	30	36	9	1.06*	(1.04, 1.07)
E	2640	2518	704	28	33	2	1.15*	(1.09, 1.20)
F	6590	5161	1543	30	35	8	1.03	(0.96, 1.12)
G	1840	1205	310	26	33	5	1.07*	(1.02, 1.11)
H	4260	3789	1151	30	34	6	1.03	(0.95, 1.13)
I	800	562	181	32	37	9	1.08	(0.99, 1.19)
J	3050	2941	881	30	40	1	1.11	(0.96, 1.30)
K	3990	4253	1313	31	43	3	1.09	(0.99, 1.20)
L	3110	3073	885	29	43	3	1.15	(0.91, 1.45)
M	892	345	107	31	36	2	1.18	(1.01, 1.37)
N	4140	3495	1102	32	39	1	1.18	(0.93, 1.51)
O	360	137	38	28	48	1	1.17	(0.70, 1.97)
P ^c	-	-	-	-	-	-	1.12	-

^a TMU A = permit areas (345, 346, 348, 349), TMU B = permit area (344), TMU C = permit areas (341, 342, 343, 347), TMU D = permit areas (227, 235, 236, 338, 601), TMU E = permit areas (152, 156, 157, 159, 183, 225), TMU F = permit areas (339, 461, 462, 464, 465, 466, 467), TMU G = permit areas (446, 447, 448, 449, 450, 451, 454, 456, 457, 458, 459), TMU H = permit areas (431, 433, 435, 440, 442, 443), TMU I = permit areas (425, 426, 427, 428), TMU J = permit areas (154, 221, 222, 223, 224, 242, 247, 249), TMU K = permit areas (215, 218, 219, 229, 417), TMU L = permit areas (213, 239, 412, 416), TMU M = permit areas (420, 421, 422, 423, 424), TMU N = permit areas (214, 240, 241, 243, 244, 245, 246, 248), TMU O = permit areas (201, 208, 209, 210, 251, 256, 257, 260, 261, 262, 263, 264, 265, 266, 267, 268, 298), TMU P = permit areas (170, 172, 174, 181, 182, 184, 197, 199, 287).

^b Not all permit areas in a TMU are open to spring hunting

^c TMU P currently does not have any permit areas open for spring hunting

^d Total excludes 97 permits issued and 41 turkeys registered from the Camp Ripley disabled veterans hunt

^e Mean success rate based on consecutive number of years hunting in permit area since a boundary change occurred or area was opened to hunting. Mean success rate based on areas open to hunting, which may not represent all permit areas within a TMU.

^f Mean finite rate of change based on fall wild turkey population survey data (1999-2008 [*n* = 4 surveys]), TMU P based on 2 surveys.

^g 85% family of confidence intervals (type I error rate controlled at $\alpha = 0.15$).

*Desired level of precision achieved

2010 Spring Wild Turkey Permit Areas

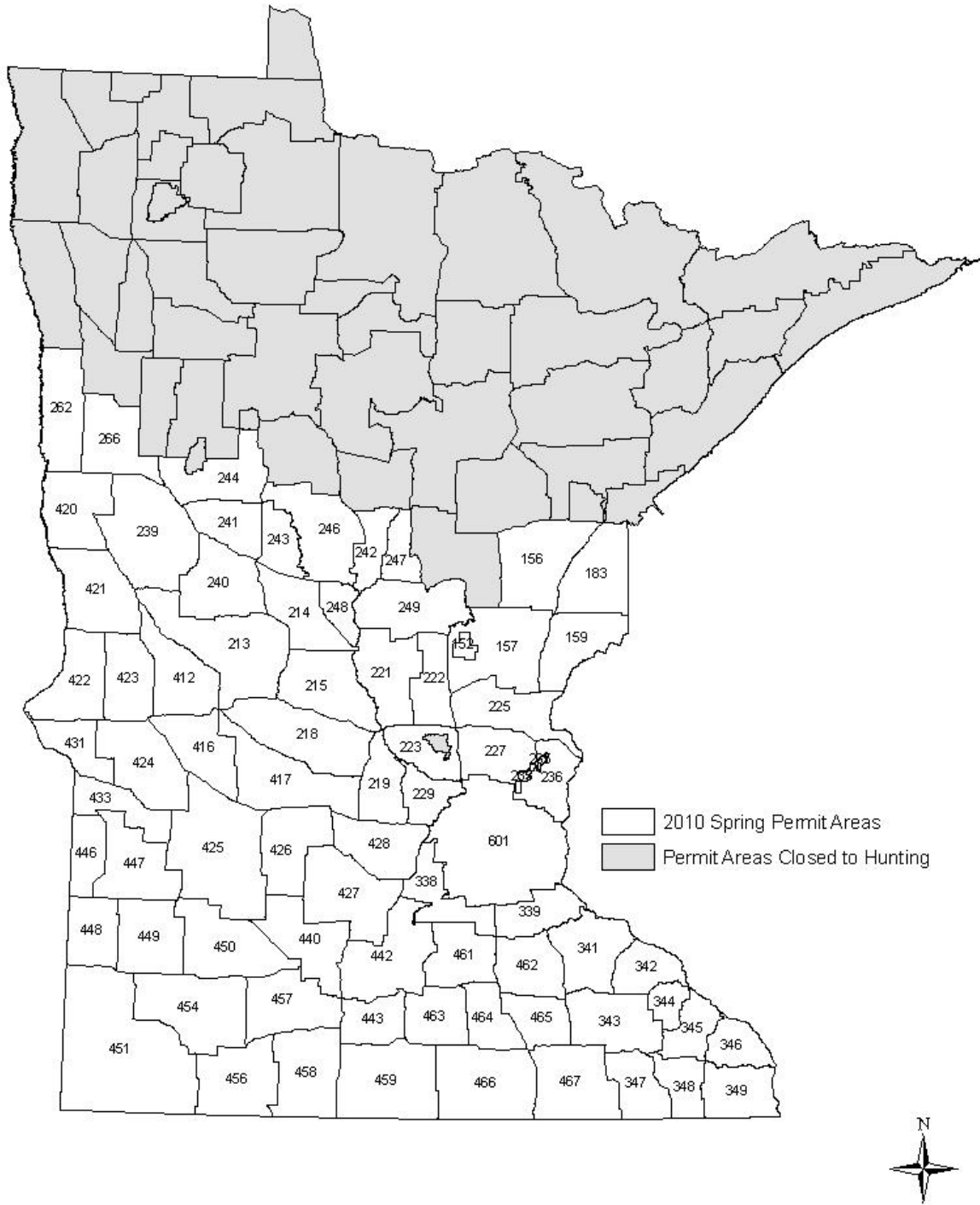


Figure 1. Permit areas open for hunting during the 2010 spring turkey hunting season, Minnesota.

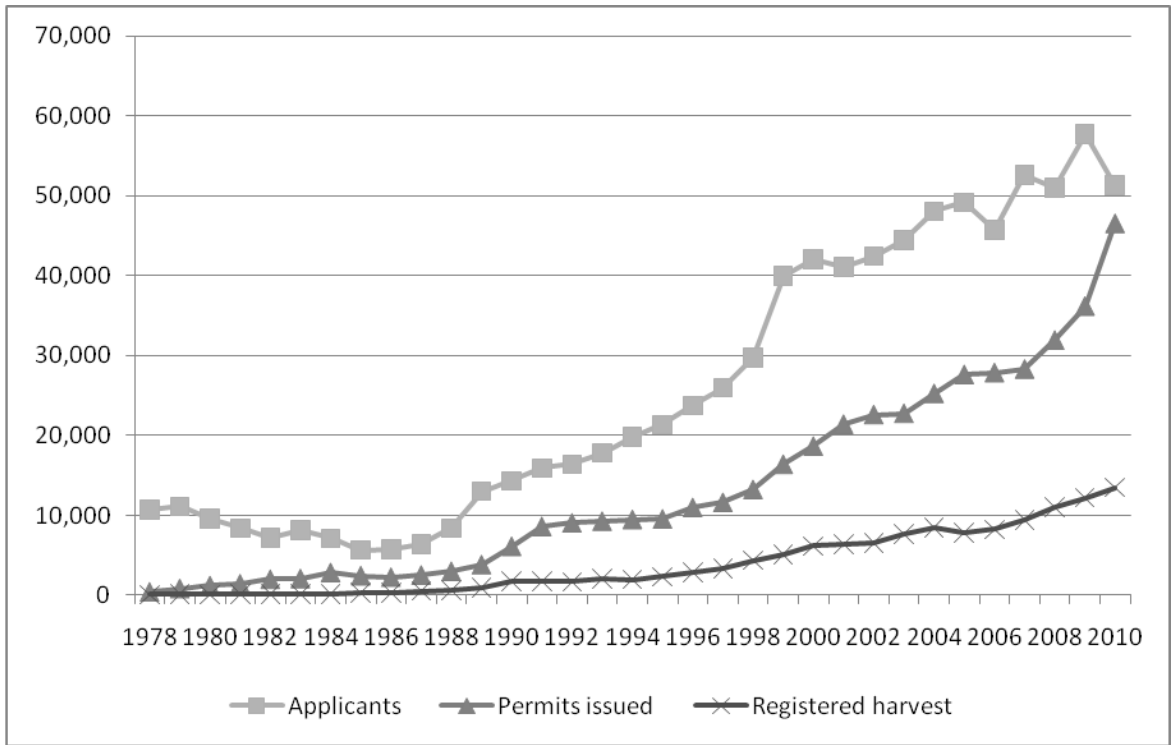


Figure 2. Applicants, permits issued, and registered harvest for the spring wild turkey seasons 1978-2010, Minnesota.

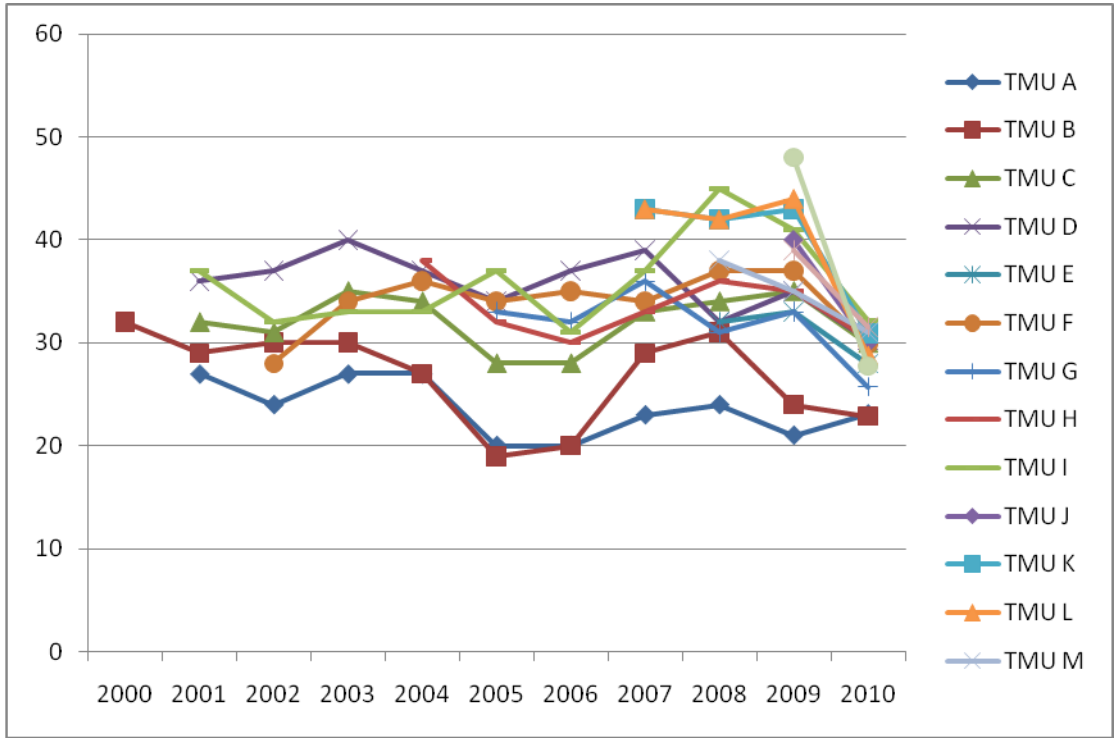


Figure 3. Mean success rate (%) for turkey management units (TMUs) based on cumulative permit area success rates since a boundary change occurred or permit areas opened for hunting, Minnesota.

Appendix A. Permits available, applicants, and permits issued by license type and permit area for time periods A – F for the 2010 spring wild turkey season, Minnesota.

Permit area	Available	Permits issued			
		General Lottery	Landowner	Surplus	Youth
152	30	18	0	6	3
156	90	63	12	0	40
157	450	292	27	71	140
159	120	93	11	6	28
183	30	25	3	0	6
213	600	402	63	68	194
214	600	359	25	146	98
215	780	528	34	143	232
218	720	503	52	103	278
219	390	275	18	58	149
221	450	285	24	98	131
222	330	229	21	45	99
223	600	427	25	95	225
225	990	586	66	206	177
227	900	593	25	187	242
229	270	163	11	68	77
235	120	98	0	13	43
236	960	616	23	192	243
239	810	532	60	114	176
240	660	431	45	116	147
241	180	112	8	39	52
242	30	7	0	14	9
243	120	67	13	22	33
244	300	209	23	34	81
246	150	96	18	30	68
247	30	14	2	6	14
248	330	194	21	51	68
249	360	223	20	67	86
262	90	25	1	26	18
266	90	22	0	24	6
338	600	384	46	122	203
339	570	391	28	96	155
341	1410	1009	69	175	314
342	1350	855	56	169	165
343	1200	852	82	169	359
344	750	567	32	72	125

Appendix A. Continued

Permit area	Permits available	Permits issued			
		General lottery	Landowner	Surplus	Youth
345	900	552	37	105	112
346	1800	1071	76	113	182
347	900	610	34	95	161
348	1050	695	44	134	131
349	2400	1533	87	218	242
412	360	244	17	62	56
416	120	88	13	14	40
417	330	244	27	25	100
420	90	26	1	30	3
421	42	13	0	13	2
422	180	105	1	21	17
423	30	6	0	6	0
424	60	34	2	12	7
425	390	285	36	45	99
426	30	16	3	10	1
427	90	68	10	7	24
428	240	158	18	35	62
431	90	60	6	13	12
433	120	82	8	19	32
440	450	302	29	72	111
442	990	656	89	158	262
443	510	332	16	71	92
446	60	45	8	4	10
447	60	33	3	11	6
448	90	53	10	17	13
449	90	69	9	5	36
450	90	44	5	17	18
451	120	55	1	31	16
454	30	22	2	3	9
456	30	15	1	5	4
457	90	51	5	15	12
458	60	20	0	20	2
459	150	96	7	23	33
461	780	529	45	144	197
462	750	501	33	119	160

Appendix A. Continued

Permit area	Available	Permits issued			
		General lottery	Landowner	Surplus	Youth
463	210	138	15	34	42
464	270	171	1	57	63
465	270	168	2	44	27
466	510	305	14	97	78
467	390	243	21	79	102
601	1050	692	14	209	300
Total ^a	33732	21975	1714	5063	7360

^aTotal excludes 97 permits issued for the Camp Ripley disabled veterans hunt

Appendix B. Permits available, applicants, and permits issued by license type and permit area for time periods G - H for the 2010 spring wild turkey season, Minnesota.

Permit area	Permits available	Permits issued			
		General lottery	Landowner	Surplus	Youth
152	50	0	0	18	1
156	60	28	2	20	11
157	200	67	2	118	21
159	120	61	1	53	6
183	50	33	1	12	3
213	400	105	3	176	34
214	400	52	5	81	18
215	400	69	1	187	30
218	400	107	2	181	36
219	200	44	0	104	22
221	250	48	1	75	16
222	300	51	2	68	17
223	400	64	0	212	28
225	450	42	1	118	20
227	500	54	1	125	25
229	200	13	1	52	11
235	120	11	0	46	9
236	600	65	0	110	28
239	500	110	1	257	44
240	500	66	0	128	24
241	180	28	1	47	7
242	50	4	0	4	0
243	120	30	1	51	9
244	200	34	0	103	12
246	150	64	2	64	11
247	50	22	0	16	0
248	250	20	1	28	2
249	200	38	0	98	11
262	90	2	0	5	3
266	90	3	0	1	1
338	500	90	3	144	25
339	500	71	0	144	28
341	800	175	3	316	44
342	800	36	0	86	29
343	800	139	2	232	40
344	500	65	2	122	16

Appendix B. Continued

Permit area	Permits available	Permits issued			
		General lottery	Landowner	Surplus	Youth
345	600	25	0	69	15
346	800	40	1	66	16
347	600	59	1	116	38
348	600	81	0	115	31
349	1200	154	0	113	25
412	200	41	1	56	9
416	120	29	0	60	4
417	300	106	2	169	28
420	90	8	0	5	1
421	70	1	0	0	0
422	200	12	0	9	2
423	50	1	0	0	0
424	80	0	0	7	0
425	200	92	1	91	35
426	50	3	1	4	1
427	90	14	0	19	4
428	300	26	0	70	8
431	90	12	0	6	3
433	120	20	1	34	8
440	300	46	0	72	11
442	600	135	6	208	40
443	400	30	0	41	10
446	80	17	0	18	7
447	80	8	0	15	2
448	90	10	1	21	3
449	90	17	2	42	3
450	90	6	0	7	4
451	120	11	0	9	1
454	50	16	1	26	8
456	50	2	0	1	0
457	90	9	0	5	1
458	80	2	0	2	3
459	150	28	0	27	6
461	500	67	1	153	23
462	600	75	2	100	21

Appendix B. Continued

Permit area	Permits available	Permits issued			
		General lottery	Landowner	Surplus	Youth
463	140	14	0	49	9
464	200	14	0	32	11
465	200	8	0	23	7
466	400	22	0	60	18
467	300	42	3	54	11
601	500	110	0	258	49
Total ^a	22250	3324	63	5834	1118

^aTotal excludes 97 permits issued for the Camp Ripley disabled veterans hunt

Appendix C. Permits available and issued, registered harvest by hunting license type and permit area for the 2010 spring wild turkey season, Minnesota.

Permit Area	Permits		Registered harvest by hunting license type									
	Available	Issued	601 ^a	602 ^b	606 ^c	607 ^d	608 ^e	610 ^f	611 ^g	613 ^h	614 ⁱ	615 ^j
152	80	46	3	0	0	0	0	8	0	5	0	0
156	150	176	20	0	0	0	0	28	1	8	0	0
157	650	738	49	1	0	4	0	153	1	38	0	1
159	240	259	8	0	0	2	0	46	0	7	0	0
183	80	83	2	0	0	0	0	10	0	0	0	0
213	1000	1045	75	0	0	6	0	196	3	33	0	0
214	1000	784	39	0	1	1	0	161	1	55	0	1
215	1180	1224	74	0	1	9	0	198	1	82	0	0
218	1120	1262	86	0	0	13	0	263	0	80	0	0
219	590	670	52	0	0	3	0	110	0	29	0	0
221	700	678	38	0	0	4	0	142	1	37	0	0
222	630	532	17	0	0	5	0	97	4	25	0	0
223	1000	1076	74	0	0	15	0	167	0	57	0	1
225	1440	1216	41	0	0	7	0	204	0	56	0	1
227	1400	1252	61	0	0	8	0	209	2	53	0	0
229	470	396	21	0	0	1	0	55	0	13	0	0
235	240	220	11	0	0	2	0	25	1	7	0	0
236	1560	1277	77	2	1	13	0	242	2	60	1	0
239	1310	1294	58	0	0	4	0	232	2	67	0	0
240	1160	957	54	2	0	3	0	192	4	65	0	0
241	360	294	20	0	0	0	0	47	0	17	0	0
242	80	38	1	0	0	0	0	7	0	4	0	0
243	240	226	11	0	0	0	0	40	0	21	0	0
244	500	496	20	1	0	3	0	101	1	20	0	0
246	300	353	29	0	0	1	0	60	0	21	0	0
247	80	74	3	0	0	0	0	16	0	6	0	0
248	580	385	19	0	0	0	0	76	0	15	0	0
249	560	543	26	0	0	1	0	97	0	36	0	0
262	180	80	8	0	0	0	0	9	0	7	0	0
266	180	57	4	0	0	0	0	7	0	3	0	0
338	1100	1017	72	1	0	2	0	183	1	39	0	0
339	1070	913	45	0	0	3	0	168	2	51	0	0
341	2210	2105	99	0	1	5	1	425	11	104	0	0
342	2150	1396	45	1	0	3	0	284	5	36	1	0
343	2000	1875	135	1	0	15	0	398	6	87	2	2
344	1250	1001	27	0	1	1	0	171	5	23	1	0

Appendix C. Continued

Permit area	Permits		Registered harvest by hunting license type									
	Available	Issued	601 ^a	602 ^b	606 ^c	607 ^d	608 ^e	610 ^f	611 ^g	613 ^h	614 ⁱ	615 ^j
345	1500	915	24	0	0	1	0	153	3	25	0	0
346	2600	1565	39	0	0	0	0	332	7	34	1	0
347	1500	1114	38	0	0	1	0	198	5	36	0	0
348	1650	1231	27	0	0	1	0	197	11	36	0	1
349	3600	2372	44	1	1	0	0	401	23	43	0	0
412	560	486	15	0	0	1	0	92	0	29	0	0
416	240	248	12	0	0	0	0	44	0	16	0	0
417	630	701	37	0	0	4	0	134	0	46	1	0
420	180	74	2	0	0	0	0	11	0	5	0	0
421	112	29	0	0	0	0	0	3	0	3	0	0
422	380	167	6	0	0	0	0	45	1	13	0	1
423	80	13	0	0	0	0	0	2	0	0	0	0
424	140	62	1	0	0	0	0	9	0	5	0	0
425	590	684	31	0	0	5	0	142	1	22	0	1
426	80	39	0	0	0	0	0	9	0	3	0	0
427	180	146	12	0	0	0	0	29	0	4	0	0
428	540	377	20	0	0	3	0	75	0	26	0	0
431	180	112	5	0	0	0	0	28	0	3	1	0
433	240	204	8	0	0	0	0	31	0	4	0	0
440	750	643	49	0	0	1	0	132	0	26	0	1
442	1590	1554	89	0	0	6	0	314	3	92	0	0
443	910	592	13	0	0	1	0	124	1	17	0	0
446	140	109	1	0	0	0	0	21	1	8	0	0
447	140	78	1	0	0	0	0	13	0	3	0	0
448	180	128	4	0	0	0	0	25	0	6	0	0
449	180	183	14	0	0	0	0	36	0	14	1	0
450	180	101	9	0	0	0	0	17	0	6	0	0
451	240	124	1	0	0	0	0	14	0	9	0	1
454	80	87	6	0	0	0	0	14	0	9	0	0
456	80	28	0	0	0	0	0	4	0	1	0	0
457	180	98	4	0	0	0	0	18	0	5	0	0
458	140	49	0	0	0	0	0	9	0	6	1	0
459	300	220	5	0	0	0	0	18	1	4	0	0
461	1280	1159	63	0	0	6	0	241	3	65	2	0
462	1350	1011	54	0	0	7	0	252	3	50	1	0

Appendix C. Continued

Permit area	Permits		Registered harvest by hunting license type									
	Available	Issued	601 ^a	602 ^b	606 ^c	607 ^d	608 ^e	610 ^f	611 ^g	613 ^h	614 ⁱ	615 ^j
463	350	301	8	0	0	1	0	48	0	9	1	0
464	470	349	24	0	0	1	0	52	0	15	0	0
465	470	279	10	0	0	1	0	55	2	15	0	0
466	910	594	22	0	0	1	0	99	0	26	2	0
467	690	555	28	1	0	3	0	77	0	26	0	0
601	1550	1632	135	2	2	27	0	279	4	107	1	0
Total ^k	55,982	46,451 ^l	2285	13	8	205	1	8624	123	2139	17	11

^a Resident youth

^b Non-resident youth

^c Resident youth archery

^d Resident archery

^e Non-resident archery

^f Resident license (includes general lottery and landowner)

^g Non-resident license (includes general lottery)

^h Resident surplus

ⁱ Non-resident surplus

^j Military

^k Total registered harvest excludes 41 turkeys registered by license types (603 resident youth surplus, 599 non-resident youth archery, 604 non-resident youth spring surplus),

^l Total excludes 97 permits issued for the Camp Ripley disabled veterans hunt

Appendix D. Gender and age structure of registered wild turkeys by permit area for the 2010 spring wild turkey season, Minnesota.

Note: Gender and age is hunter reported and is subject to error.

Permit area	Female (bearded)	Male		Juvenile (%)	Total registered harvest
		Adult	Juvenile		
152	0	14	2	13	16
156	0	40	17	30	57
157	0	208	39	16	247
159	2	56	5	8	63
183	0	12	0	0	12
213	0	255	58	19	313
214	0	206	53	20	259
215	3	303	59	16	365
218	2	349	91	21	442
219	1	152	41	21	194
221	0	181	41	18	222
222	0	128	20	14	148
223	0	266	48	15	314
225	0	245	64	21	309
227	4	259	70	21	333
229	0	63	27	30	90
235	2	35	9	20	46
236	2	320	76	19	398
239	0	295	68	19	363
240	0	253	67	21	320
241	0	66	18	21	84
242	0	10	2	17	12
243	0	62	10	14	72
244	1	118	27	18	146
246	1	88	22	20	111
247	0	21	4	16	25
248	1	92	17	15	110
249	0	130	30	19	160
262	1	14	9	38	24
266	1	11	2	14	14
338	3	225	70	23	298
339	1	212	56	21	269
341	2	500	144	22	646
342	2	297	76	20	375
343	4	523	119	18	646
344	0	155	74	32	229

Appendix D. Continued

Permit area	Female (bearded)	Male		Juvenile (%)	Total registered harvest
		Adult	Juvenile		
345	0	171	35	17	206
346	5	319	89	22	413
347	2	228	48	17	278
348	1	215	57	21	273
349	4	360	149	29	513
412	0	118	19	14	137
416	0	64	8	11	72
417	0	177	45	20	222
420	0	18	0	0	18
421	0	4	2	33	6
422	1	51	14	21	66
423	0	1	1	50	2
424	0	14	1	7	15
425	1	154	47	23	202
426	0	12	0	0	12
427	1	39	5	11	45
428	0	89	35	28	124
431	0	32	5	14	37
433	0	37	6	14	43
440	0	156	53	25	209
442	5	373	126	25	504
443	0	113	43	28	156
446	0	23	8	26	31
447	1	13	3	18	17
448	0	33	2	6	35
449	1	59	5	8	65
450	0	20	12	38	32
451	0	22	3	12	25
454	0	27	2	7	29
456	1	3	1	20	5
457	0	22	5	19	27
458	0	14	2	13	16
459	0	25	3	11	28
461	2	324	54	14	380
462	3	275	89	24	367

Appendix D. Continued

Permit area	Female (bearded)	Male		Juvenile (%)	Total registered harvest
		Adult	Juvenile		
463	0	50	17	25	67
464	1	67	24	26	92
465	0	69	14	17	83
466	1	113	36	24	150
467	2	114	19	14	135
601	3	452	102	18	557
801 ^a	0	33	2	6	35
802 ^a	0	5	1	17	6
Total	68	10672	2727	20	13467

^a Camp Ripley disabled veterans hunt

Appendix E. Registered harvest, general lottery applicants, permits available (total, landowner, general lottery), and the chance of being drawn in the general lottery by permit area and time period for the 2010 spring wild turkey season, Minnesota.

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
152	A	0	12	5	0	5	42
	B	2	12	5	0	5	42
	C	4	12	5	0	5	42
	D	3	12	5	0	5	42
	E	2	4	5	0	5	125
	F	2	0	5	0	5	100
	G	2	1	25	0	5	100
	H	1	2	25	0	5	100
156	A	10	38	15	3	9	24
	B	7	26	15	2	11	42
	C	13	38	15	0	14	37
	D	8	38	15	3	8	21
	E	3	22	15	3	9	41
	F	0	12	15	1	13	100
	G	7	30	30	2	24	80
	H	9	10	30	0	30	100
157	A	57	224	75	7	60	27
	B	27	122	75	7	59	48
	C	41	196	75	11	50	26
	D	33	183	75	1	72	39
	E	28	54	75	1	73	100
	F	29	24	75	0	75	100
	G	21	51	100	1	98	100
	H	11	29	100	1	98	100
159	A	18	115	20	4	12	10
	B	9	47	20	5	10	21
	C	4	73	20	2	16	22
	D	6	41	20	0	20	49
	E	3	22	20	0	20	91
	F	5	14	20	0	20	100
	G	13	53	60	0	58	100
	H	5	11	60	1	58	100
183	A	3	14	5	1	3	21
	B	2	9	5	0	4	44
	C	1	19	5	1	3	16
	D	2	32	5	0	5	16
	E	2	19	5	1	3	16
	F	0	9	5	0	5	56
	G	2	22	25	0	25	100
	H	0	15	25	1	23	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
213	A	78	281	100	15	85	30
	B	46	209	100	19	81	39
	C	51	314	100	16	84	27
	D	40	264	100	7	93	35
	E	25	79	100	5	95	100
	F	23	47	100	1	99	100
	G	24	86	200	3	197	100
	H	26	31	200	0	200	100
214	A	54	176	100	10	90	51
	B	38	130	100	4	96	74
	C	42	163	100	10	90	55
	D	36	145	100	0	100	69
	E	33	33	100	1	99	100
	F	14	22	100	0	100	100
	G	30	45	200	2	198	100
	H	12	15	200	3	197	100
215	A	78	343	130	10	120	35
	B	41	176	130	8	122	69
	C	58	367	130	11	119	32
	D	49	253	130	3	127	50
	E	41	79	130	1	129	100
	F	36	38	130	1	129	100
	G	41	60	200	1	199	100
	H	21	22	200	0	200	100
218	A	98	322	120	19	101	31
	B	48	200	120	10	110	55
	C	65	364	120	13	107	29
	D	49	232	120	9	111	48
	E	45	88	120	1	119	100
	F	41	55	120	0	120	100
	G	60	82	200	2	198	100
	H	36	40	200	0	200	100
219	A	54	196	65	5	60	31
	B	28	123	65	6	59	48
	C	22	198	65	3	62	31
	D	24	142	65	2	63	44
	E	18	52	65	2	63	100
	F	13	17	65	0	65	100
	G	25	43	100	0	100	100
	H	10	12	100	0	100	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
221	A	51	148	75	8	67	45
	B	33	106	75	9	66	62
	C	26	171	75	4	71	42
	D	30	105	75	2	73	70
	E	29	23	75	1	74	100
	F	22	27	75	0	75	100
	G	22	47	125	1	124	100
	H	9	13	125	0	125	100
222	A	29	116	55	10	45	39
	B	26	78	55	3	52	67
	C	21	154	55	1	54	35
	D	19	85	55	4	51	60
	E	14	37	55	2	53	100
	F	6	24	55	1	54	100
	G	28	46	150	2	148	100
	H	5	13	150	0	150	100
223	A	77	339	100	10	90	27
	B	41	199	100	5	95	48
	C	48	309	100	4	96	31
	D	33	172	100	1	99	58
	E	31	74	100	5	95	100
	F	23	38	100	0	100	100
	G	48	59	200	0	200	100
	H	13	14	200	0	200	100
225	A	75	332	165	33	132	40
	B	52	187	165	10	155	83
	C	49	317	165	14	151	48
	D	40	191	165	5	160	84
	E	40	60	165	2	163	100
	F	21	27	165	2	163	100
	G	22	47	225	1	224	100
	H	10	11	225	0	225	100
227	A	81	335	150	2	148	44
	B	53	202	150	12	138	68
	C	49	250	150	8	142	57
	D	50	178	150	2	148	83
	E	37	68	150	1	149	100
	F	20	33	150	0	150	100
	G	30	54	250	1	249	100
	H	13	13	250	0	250	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
229	A	26	86	45	4	41	48
	B	12	56	45	3	42	75
	C	15	81	45	1	44	54
	D	13	60	45	3	42	70
	E	9	12	45	0	45	100
	F	2	10	45	0	45	100
	G	9	13	100	1	99	100
	H	4	5	100	0	100	100
235	A	15	77	20	0	20	26
	B	7	51	20	0	20	39
	C	4	50	20	0	20	40
	D	6	33	20	0	20	61
	E	1	10	20	0	20	100
	F	2	17	20	0	20	100
	G	6	4	60	0	60	100
	H	5	11	60	0	60	100
236	A	109	369	160	8	152	41
	B	52	230	160	4	156	68
	C	56	318	160	7	153	48
	D	47	229	160	4	156	68
	E	54	87	160	0	160	100
	F	24	32	160	0	160	100
	G	44	54	300	0	300	100
	H	12	22	300	0	300	100
239	A	72	328	135	15	120	37
	B	54	221	135	17	118	53
	C	60	366	135	16	119	33
	D	34	280	135	11	124	44
	E	41	89	135	1	134	100
	F	32	66	135	0	135	100
	G	49	94	250	1	249	100
	H	21	33	250	0	250	100
240	A	76	232	110	19	91	39
	B	38	130	110	13	97	75
	C	44	211	110	10	100	47
	D	37	190	110	3	107	56
	E	42	54	110	0	110	100
	F	36	48	110	0	110	100
	G	35	59	250	0	250	100
	H	12	20	250	0	250	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
241	A	24	68	30	0	30	44
	B	11	35	30	1	29	83
	C	13	67	30	4	26	39
	D	10	37	30	3	27	73
	E	10	12	30	0	30	100
	F	6	11	30	0	30	100
	G	8	27	90	1	89	100
	H	2	6	90	0	90	100
242	A	3	4	5	0	5	100
	B	0	1	5	0	5	100
	C	1	14	5	0	5	36
	D	0	10	5	0	5	50
	E	0	0	5	0	5	100
	F	2	0	5	0	5	100
	G	6	6	25	0	25	100
	H	0	0	25	0	25	100
243	A	12	44	20	3	17	39
	B	8	16	20	2	18	100
	C	9	53	20	4	16	30
	D	10	31	20	3	17	55
	E	5	12	20	0	20	100
	F	5	4	20	1	19	100
	G	14	26	60	1	59	100
	H	9	15	60	0	60	100
244	A	35	128	50	8	42	33
	B	15	89	50	2	48	54
	C	33	159	50	7	43	27
	D	15	113	50	5	45	40
	E	15	53	50	1	49	92
	F	14	32	50	0	50	100
	G	10	33	100	0	100	100
	H	9	10	100	0	100	100
246	A	14	69	25	3	22	32
	B	10	56	25	4	21	38
	C	22	90	25	3	22	24
	D	14	78	25	4	21	27
	E	9	29	25	0	25	86
	F	11	6	25	4	21	100
	G	19	63	75	2	73	100
	H	12	21	75	0	75	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
247	A	2	20	5	0	5	25
	B	4	6	5	1	4	67
	C	3	14	5	0	5	36
	D	2	10	5	1	4	40
	E	1	1	5	0	5	100
	F	1	3	5	0	5	100
	G	9	20	25	0	25	100
	H	3	5	25	0	25	100
248	A	28	93	55	8	47	51
	B	20	57	55	5	50	88
	C	19	83	55	3	52	63
	D	14	55	55	0	55	100
	E	8	16	55	4	51	100
	F	5	7	55	1	54	100
	G	14	24	125	0	125	100
	H	2	3	125	1	124	100
249	A	37	118	60	7	53	45
	B	23	113	60	9	51	45
	C	30	141	60	2	58	41
	D	15	108	60	2	58	54
	E	14	30	60	0	60	100
	F	11	24	60	0	60	100
	G	24	25	100	0	100	100
	H	6	18	100	0	100	100
262	A	5	6	15	1	14	100
	B	4	3	15	0	15	100
	C	7	15	15	0	15	100
	D	1	9	15	0	15	100
	E	2	0	15	0	15	100
	F	0	0	15	0	15	100
	G	5	3	45	0	45	100
	H	0	1	45	0	45	100
266	A	4	6	15	0	15	100
	B	2	3	15	0	15	100
	C	1	8	15	0	15	100
	D	3	4	15	0	15	100
	E	1	2	15	0	15	100
	F	0	1	15	0	15	100
	G	3	5	45	0	45	100
	H	0	0	45	0	45	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
338	A	86	258	100	17	83	32
	B	39	181	100	11	89	49
	C	48	259	100	10	90	35
	D	40	156	100	5	95	61
	E	28	60	100	1	99	100
	F	16	26	100	2	98	100
	G	32	91	250	1	249	100
	H	9	19	250	2	248	100
339	A	65	202	95	12	83	41
	B	36	140	95	4	91	65
	C	36	168	95	7	88	52
	D	33	149	95	3	92	62
	E	32	60	95	1	94	100
	F	14	32	95	1	94	100
	G	42	79	250	0	250	100
	H	11	14	250	0	250	100
341	A	126	557	235	24	211	38
	B	97	344	235	20	215	63
	C	105	618	235	14	221	36
	D	80	381	235	7	228	60
	E	79	186	235	3	232	100
	F	47	102	235	1	234	100
	G	79	145	400	2	398	100
	H	33	64	400	1	399	100
342	A	110	388	225	32	193	50
	B	76	269	225	7	218	81
	C	52	425	225	13	212	50
	D	50	255	225	4	221	87
	E	50	106	225	0	225	100
	F	23	69	225	0	225	100
	G	11	49	400	0	400	100
	H	3	6	400	0	400	100
343	A	130	431	200	28	172	40
	B	83	307	200	15	185	60
	C	113	496	200	26	174	35
	D	90	320	200	11	189	59
	E	63	138	200	1	199	100
	F	49	93	200	1	199	100
	G	79	141	400	1	399	100
	H	32	36	400	1	399	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
344	A	64	392	125	18	107	27
	B	38	239	125	8	117	49
	C	40	303	125	4	121	40
	D	27	165	125	2	123	75
	E	25	108	125	0	125	100
	F	16	70	125	0	125	100
	G	15	62	250	2	248	100
	H	4	19	250	0	250	100
345	A	57	255	150	26	124	49
	B	41	160	150	9	141	88
	C	33	202	150	1	149	74
	D	27	161	150	1	149	93
	E	33	59	150	0	150	100
	F	2	11	150	0	150	100
	G	13	33	300	0	300	100
	H	0	10	300	0	300	100
346	A	133	403	300	44	256	64
	B	83	277	300	9	291	100
	C	69	395	300	10	290	73
	D	50	279	300	10	290	100
	E	42	124	300	2	298	100
	F	12	45	300	1	299	100
	G	20	46	400	1	399	100
	H	4	5	400	0	400	100
347	A	73	289	150	13	137	47
	B	36	202	150	5	145	72
	C	48	289	150	10	140	48
	D	42	176	150	6	144	82
	E	38	88	150	0	150	100
	F	10	27	150	0	150	100
	G	19	64	300	1	299	100
	H	12	9	300	0	300	100
348	A	64	370	175	23	152	41
	B	44	252	175	4	171	68
	C	35	355	175	8	167	47
	D	35	291	175	8	167	57
	E	50	100	175	1	174	100
	F	19	51	175	0	175	100
	G	20	84	300	0	300	100
	H	6	16	300	0	300	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
349	A	147	747	400	51	349	47
	B	101	402	400	13	387	96
	C	79	597	400	14	386	65
	D	65	444	400	7	393	89
	E	59	226	400	2	398	100
	F	17	87	400	0	400	100
	G	30	165	600	0	600	100
	H	15	34	600	0	600	100
412	A	20	118	60	5	55	47
	B	15	62	60	4	56	90
	C	24	114	60	3	57	50
	D	22	98	60	4	56	57
	E	16	30	60	1	59	100
	F	12	26	60	0	60	100
	G	21	42	100	1	99	100
	H	7	10	100	0	100	100
416	A	13	64	20	4	16	25
	B	7	48	20	3	17	35
	C	11	58	20	4	16	28
	D	9	52	20	0	20	38
	E	7	12	20	2	18	100
	F	6	12	20	0	20	100
	G	15	17	60	0	60	100
	H	4	15	60	0	60	100
417	A	42	175	55	11	44	25
	B	19	116	55	4	51	44
	C	25	217	55	5	50	23
	D	28	123	55	4	51	41
	E	19	63	55	2	53	84
	F	14	33	55	1	54	100
	G	41	83	150	1	149	100
	H	34	34	150	1	149	100
420	A	5	8	15	0	15	100
	B	2	2	15	0	15	100
	C	7	18	15	1	14	78
	D	1	8	15	0	15	100
	E	0	0	15	0	15	100
	F	0	0	15	0	15	100
	G	3	8	45	0	45	100
	H	0	1	45	0	45	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
421	A	1	6	7	0	7	100
	B	1	3	7	0	7	100
	C	2	4	7	0	7	100
	D	1	3	7	0	7	100
	E	0	1	7	0	7	100
	F	0	0	7	0	7	100
	G	1	2	35	0	35	100
	H	0	0	35	0	35	100
422	A	13	43	30	1	29	67
	B	11	26	30	0	30	100
	C	9	28	30	0	30	100
	D	14	28	30	0	30	100
	E	4	6	30	0	30	100
	F	5	1	30	0	30	100
	G	10	14	100	0	100	100
	H	0	1	100	0	100	100
423	A	1	5	5	0	5	100
	B	1	1	5	0	5	100
	C	0	3	5	0	5	100
	D	0	0	5	0	5	100
	E	0	0	5	0	5	100
	F	0	0	5	0	5	100
	G	0	1	25	0	25	100
	H	0	0	25	0	25	100
424	A	4	21	10	2	8	38
	B	3	8	10	0	10	100
	C	1	12	10	0	10	83
	D	3	13	10	0	10	77
	E	4	0	10	0	10	100
	F	0	0	10	0	10	100
	G	0	0	40	0	40	100
	H	0	0	40	0	40	100
425	A	41	177	65	14	51	29
	B	25	89	65	8	57	64
	C	38	162	65	9	56	35
	D	26	149	65	5	60	40
	E	20	52	65	0	65	100
	F	12	32	65	0	65	100
	G	21	65	100	1	99	100
	H	19	43	100	0	100	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
426	A	1	12	5	1	4	33
	B	2	11	5	1	4	36
	C	3	11	5	1	4	36
	D	1	1	5	0	5	100
	E	0	1	5	0	5	100
	F	1	1	5	0	5	100
	G	3	3	25	1	24	100
	H	1	2	25	0	25	100
427	A	13	13	15	4	11	85
	B	4	26	15	2	13	50
	C	7	24	15	3	12	50
	D	6	17	15	1	14	82
	E	7	14	15	0	15	100
	F	2	9	15	0	15	100
	G	4	15	45	0	45	100
	H	2	1	45	0	45	100
428	A	30	88	40	7	33	38
	B	15	83	40	2	38	46
	C	22	89	40	4	36	40
	D	14	63	40	4	36	57
	E	13	27	40	1	39	100
	F	9	16	40	0	40	100
	G	17	27	150	0	150	100
	H	4	11	150	0	150	100
431	A	5	20	15	4	11	55
	B	6	20	15	2	13	65
	C	5	18	15	0	15	83
	D	5	18	15	0	15	83
	E	5	7	15	0	15	100
	F	4	9	15	0	15	100
	G	2	9	45	0	45	100
	H	5	6	45	0	45	100
433	A	11	42	20	4	16	38
	B	7	31	20	1	19	61
	C	3	39	20	3	17	44
	D	10	26	20	0	20	77
	E	3	15	20	0	20	100
	F	2	6	20	0	20	100
	G	6	18	60	1	59	100
	H	1	3	60	0	60	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
440	A	60	193	75	14	61	32
	B	22	101	75	7	68	67
	C	38	130	75	4	71	55
	D	28	110	75	3	72	65
	E	21	50	75	0	75	100
	F	16	24	75	1	74	100
	G	16	39	150	0	150	100
	H	8	15	150	0	150	100
442	A	125	434	165	31	134	31
	B	62	287	165	19	146	51
	C	68	483	165	27	138	29
	D	62	277	165	11	154	56
	E	55	113	165	0	165	100
	F	40	58	165	1	164	100
	G	73	120	300	3	297	100
	H	19	32	300	3	297	100
443	A	45	117	85	7	78	67
	B	28	94	85	1	84	89
	C	20	153	85	3	82	54
	D	22	97	85	1	84	87
	E	25	40	85	2	83	100
	F	5	14	85	2	83	100
	G	9	25	200	0	200	100
	H	2	14	200	0	200	100
446	A	5	8	10	3	7	88
	B	4	8	10	3	7	88
	C	2	17	10	0	10	59
	D	4	12	10	2	8	67
	E	3	8	10	0	10	100
	F	2	10	10	0	10	100
	G	9	15	40	0	40	100
	H	2	3	40	0	40	100
447	A	3	14	10	1	9	64
	B	5	9	10	1	9	100
	C	0	23	10	0	10	43
	D	3	15	10	1	9	60
	E	0	2	10	0	10	100
	F	0	0	10	0	10	100
	G	4	7	40	0	40	100
	H	2	6	40	0	40	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
448	A	3	24	15	4	11	46
	B	6	26	15	3	12	46
	C	10	27	15	2	13	48
	D	6	13	15	1	14	100
	E	4	6	15	0	15	100
	F	1	5	15	0	15	100
	G	3	12	45	0	45	100
	H	2	4	45	1	44	100
449	A	14	42	15	3	12	29
	B	5	34	15	3	12	35
	C	5	33	15	2	13	39
	D	9	41	15	1	14	34
	E	3	10	15	0	15	100
	F	4	15	15	0	15	100
	G	21	17	45	2	43	100
	H	4	5	45	0	45	100
450	A	6	30	15	3	12	40
	B	6	9	15	1	14	100
	C	8	20	15	1	14	70
	D	6	9	15	0	15	100
	E	1	6	15	0	15	100
	F	3	1	15	0	15	100
	G	2	4	45	0	45	100
	H	0	2	45	0	45	100
451	A	3	21	20	1	19	90
	B	3	9	20	0	20	100
	C	9	15	20	0	20	100
	D	4	7	20	0	20	100
	E	1	5	20	0	20	100
	F	1	5	20	0	20	100
	G	2	8	60	0	60	100
	H	2	3	60	0	60	100
454	A	2	23	5	1	4	17
	B	3	8	5	0	5	63
	C	2	15	5	1	4	27
	D	7	22	5	0	5	23
	E	2	2	5	0	5	100
	F	1	6	5	0	5	83
	G	6	15	25	1	24	100
	H	6	3	25	0	25	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
456	A	0	4	5	0	5	100
	B	0	4	5	0	5	100
	C	1	2	5	1	4	100
	D	3	7	5	0	5	71
	E	0	1	5	0	5	100
	F	0	0	5	0	5	100
	G	1	2	25	0	25	100
	H	0	0	25	0	25	100
457	A	6	14	15	2	13	93
	B	6	10	15	2	13	100
	C	1	32	15	1	14	44
	D	6	17	15	0	15	88
	E	5	4	15	0	15	100
	F	0	0	15	0	15	100
	G	2	7	45	0	45	100
	H	1	2	45	0	45	100
458	A	5	16	10	0	10	63
	B	3	3	10	0	10	100
	C	4	2	10	0	10	100
	D	2	6	10	0	10	100
	E	1	3	10	0	10	100
	F	0	0	10	0	10	100
	G	1	2	40	0	40	100
	H	0	0	40	0	40	100
459	A	6	64	25	2	23	36
	B	2	30	25	1	24	80
	C	6	47	25	3	22	47
	D	7	41	25	1	24	59
	E	1	22	25	0	25	100
	F	4	5	25	0	25	100
	G	2	25	75	0	75	100
	H	0	10	75	0	75	100
461	A	83	315	130	22	108	34
	B	64	175	130	9	121	69
	C	63	286	130	10	120	42
	D	41	154	130	3	127	82
	E	44	80	130	1	129	100
	F	29	35	130	0	130	100
	G	40	62	250	1	249	100
	H	16	20	250	0	250	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
462	A	84	263	125	7	118	45
	B	46	129	125	16	109	84
	C	53	244	125	6	119	49
	D	51	207	125	3	122	59
	E	47	69	125	1	124	100
	F	19	20	125	0	125	100
	G	48	71	300	2	298	100
	H	19	23	300	0	300	100
463	A	20	89	35	8	27	30
	B	8	50	35	3	32	64
	C	8	64	35	4	31	48
	D	5	42	35	0	35	83
	E	9	20	35	0	35	100
	F	3	16	35	0	35	100
	G	11	10	70	0	70	100
	H	3	9	70	0	70	100
464	A	16	100	45	1	44	44
	B	14	55	45	0	45	82
	C	16	86	45	0	45	52
	D	19	55	45	0	45	82
	E	10	13	45	0	45	100
	F	6	6	45	0	45	100
	G	6	15	100	0	100	100
	H	5	4	100	0	100	100
465	A	17	62	45	1	44	71
	B	16	45	45	1	44	98
	C	15	74	45	0	45	61
	D	13	51	45	0	45	88
	E	13	13	45	0	45	100
	F	2	2	45	0	45	100
	G	5	13	100	0	100	100
	H	2	1	100	0	100	100
466	A	43	167	85	7	78	47
	B	22	122	85	4	81	66
	C	26	173	85	3	82	47
	D	18	87	85	0	85	98
	E	12	22	85	0	85	100
	F	9	9	85	0	85	100
	G	15	30	200	0	200	100
	H	5	7	200	0	200	100

Appendix E. Continued

Permit area	Time period	Registered harvest	Applicants	Permits available			Chance of general lottery applicant being drawn (%) ^b
				Total	Landowner ^a	General lottery	
467	A	31	133	65	9	56	42
	B	14	72	65	4	61	85
	C	27	132	65	2	63	48
	D	15	89	65	6	59	66
	E	12	28	65	0	65	100
	F	7	20	65	0	65	100
	G	18	35	150	2	148	100
	H	11	14	150	1	149	100
601	A	123	418	175	5	170	41
	B	59	299	175	5	170	57
	C	99	343	175	3	172	50
	D	58	245	175	1	174	71
	E	55	95	175	0	175	100
	F	48	48	175	0	175	100
	G	74	111	250	0	250	100
	H	41	45	250	0	250	100

^a Landowners were allotted up to 20% of the total permits available for each permit area and time period. Unused landowner permits were made available in the general lottery.

^b Chance of general lottery applicant being drawn assumes no hunter preference

PRAIRIE-CHICKEN HARVEST IN MINNESOTA DURING 2009

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. Opportunities to purchase a hunting permit were awarded through a lottery system, and each licensed hunter could harvest a maximum of 2 prairie-chickens. The same format was implemented for prairie-chicken hunting seasons during 2004 and 2005. The number of permit areas was increased to 11 in 2006 and have remained the same since then (Figure 1). Permit areas 804A–811A (i.e., those south of U.S. Highway 2) are in an area that is closed to the hunting of sharp-tailed grouse (*Tympanuchus phasianellus*). Licensed prairie-chicken hunters in those permit areas, however, are allowed to take up to a regular bag limit of sharp-tailed grouse while hunting prairie-chickens. The objective of this report is to document results of the 2009 prairie-chicken hunting season.

METHODS

The Electronic Licensing System (ELS) automatically recorded all lottery applications, lottery results, and purchases of permits. Prairie-chicken hunters are not required to register their harvested birds in the ELS, so I sent a postcard survey by mail to all people who were successful in the lottery. Approximately 3 weeks later I sent the postcard survey a second time to people who had not responded to the first mailing. The survey consisted of the following 5 questions: did you hunt, how many days did you hunt, how many prairie-chickens did you bag, how many sharp-tailed grouse did you bag while hunting for prairie-chickens, and how satisfied were you with the hunt?

To summarize hunting results for this report I used only responses from lottery winners who purchased a hunting permit. I checked to ensure that responses from people who replied to the first mailing were similar to responses from people who replied to the second mailing. Then, to estimate the numbers of hunters and birds harvested, I assumed that nonrespondents would have had the same average response as all those who responded to either mailing of the survey.

RESULTS & DISCUSSION

One hundred eighty-six prairie-chicken hunting permits were available during 2009. There were 179 lottery winners, and 14 of them were landowners (Table 1). There were fewer applicants than available permits in 2 of the permit areas. One hundred forty-six lottery winners purchased a permit. Two lottery winners who did not purchase a permit reported hunting, so I considered there to be 148 permit purchasers in 2009. One hundred eight permit purchasers (73%) responded to the first mailing of the survey, and 21 (14%) responded to the second mailing, so the response rate of purchasers was 87% (i.e., 129 of 148).

Seven purchasers who responded to the survey reported that they did not hunt (5%), and 122 respondents reported hunting, so there were an estimated 141 hunters (Table 2). Hunters hunted an average of 2.1 days during the October 17th–21st season. Hunters reported harvesting 102 prairie-chickens, and the estimated total harvest was 120 prairie-chickens (Table 2). I estimated that 76 hunters bagged at least 1 prairie-chicken (54%). The average rating for hunter satisfaction on a 1–5 scale was 3.4 (median = 4), and 75% of the 122 respondents to this question reported a satisfaction level of 3 or greater.

The hunter success rate and harvest and during 2009 were very similar to the averages for the previous 3 years when similar numbers of permits were offered (Table 3). The number of applicants has been similar during the last 5 years; hunter success rates and total harvest have been more variable. Hunter satisfaction is highly correlated with hunter success ($r = 0.74, n = 6$, Table 3).

Prairie-chicken hunters reported bagging 15 sharp-tailed grouse while hunting prairie-chickens, and the estimated harvest was 16 sharp-tailed grouse. These sharp-tailed grouse were harvested from permit areas 801A–807A, and half of them were harvested from permit area 805A (Figure 1).

ACKNOWLEDGEMENTS

I appreciate the help of Laura Gilbert in preparing and mailing the survey and in data entry, and comments from Mark Lenarz and Wes Bailey helped me improve the clarity of the report.

Table 1. Results of the lottery for prairie-chicken hunting permits in Minnesota during 2009.

Permit area	Permits available	No. of applicants	Lottery winners	
			Number ^a	Proportion
801A	10	3	3	1.00
802A	10	7	7	1.00
803A	10	13	10	0.77
804A	17	40	17	0.43
805A	20	84	22	0.26
806A	17	72	18	0.25
807A	25	63	25	0.40
808A	20	29	20	0.69
809A	20	65	20	0.31
810A	27	101	27	0.27
811A	10	35	10	0.29
All	186	512	179	0.35

^a Extra permits may be awarded in a permit area when the last applicant selected in the lottery applied as a member of a hunting party.

Table 2. Hunter harvest of prairie-chickens in Minnesota during 2009.

Permit area	No. of hunters ^a		Birds harvested		Birds per harvester ^b	Success rate ^c
	Self-reported	Estimated	Self-reported	Estimated		
801A	2	2	0	0		0.00
802A	6	6	8	8	2.0	0.67
803A	7	8	2	2	1.0	0.25
804A	13	15	13	15	1.7	0.60
805A	15	17	18	20	1.7	0.71
806A	13	15	8	10	1.4	0.47
807A	18	20	20	23	1.5	0.75
808A	11	14	14	19	1.7	0.79
809A	16	16	7	8	1.3	0.38
810A	15	20	11	14	1.6	0.45
811A	6	8	1	1	1.0	0.13
All	122	141	102	120	1.6	0.54

^a Number of permit purchasers who actually went hunting.

^b Estimated number of prairie-chickens harvested per successful hunter.

^c Proportion of estimated hunters who harvested ≥ 1 prairie-chicken.

Table 3. Annual summary of prairie-chicken hunting results in Minnesota during 2003–2009.

Year	Permits available	Applicants	Birds harvested	Success rate ^a	Hunter satisfaction ^b
2003	100	853	115	0.68	4.4
2004	101	759	51	0.37	3.6
2005	110	500	90	0.58	4.0
2006	182	512	92	0.40	3.6
2007	187	519	122	0.53	
2008	186	535	141	0.62	3.9
2009	186	512	120	0.54	3.4

^a Proportion of hunters who harvested ≥ 1 prairie-chicken.

^b Average on a 1–5 scale.

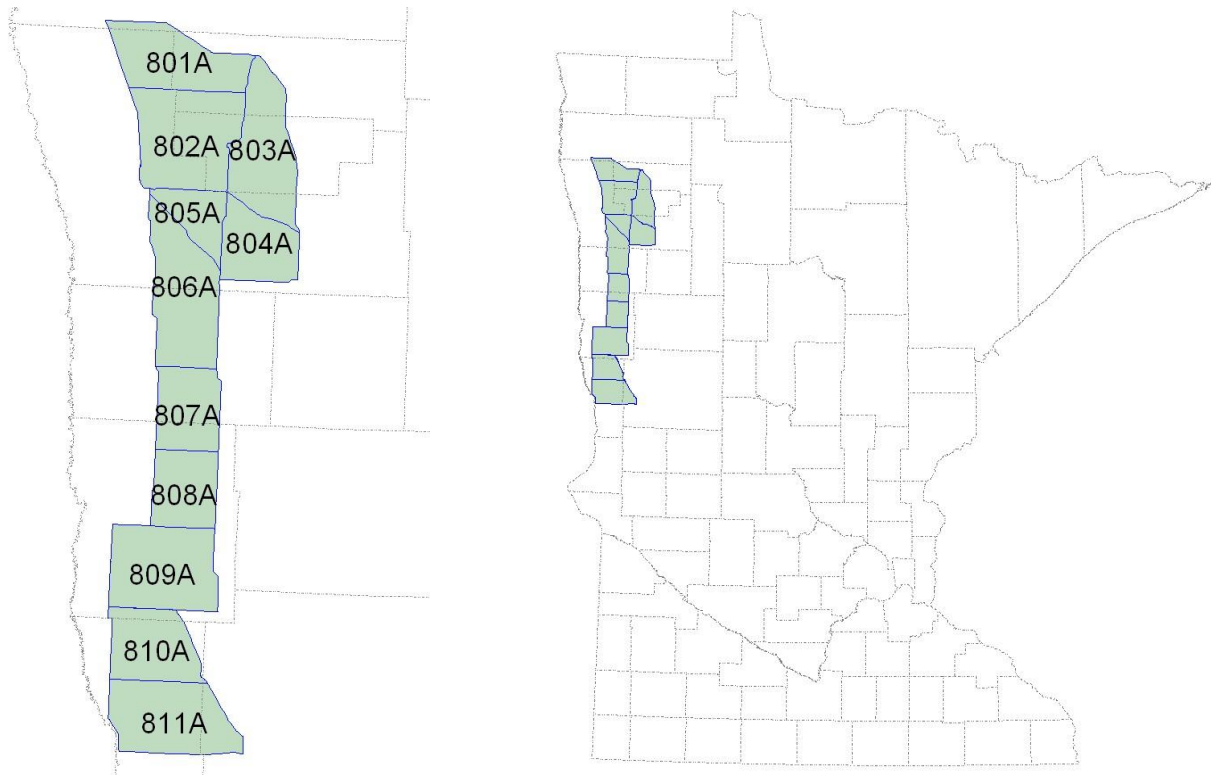


Figure 1. Map of permit areas for prairie-chicken hunting in Minnesota (left) and their location relative to counties within the state (right).

2009 MINNESOTA BEAR HARVEST REPORT

David Garshelis, Karen Noyce, Forest Wildlife and Populations Research Group

INTRODUCTION

The Minnesota bear range is divided into 11 bear management units (BMUs, Figure 1). Each has a separate quota on hunting licenses. Outside the primary bear range, where bear depredation to crops is a primary concern, license sales are unlimited (no-quota area). Hunters in this area can harvest two bears, and beginning in 2005 hunters could purchase both a quota and no-quota license. 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 size and structure.

METHODS

Successful hunters must register their bears at designated registration stations. Stations are not staffed by DNR personnel. Harvest data are a simple tally of these registrations, which for the most part are done electronically. Hunters also are required to submit a tooth from harvested bears (compliance \approx 70%), which is used to estimate age. Some years, including this year, they were also requested to submit a section of rib bone. Hunters receive a postage-paid tooth envelope when they register their bear, and extract and submit the tooth and rib samples themselves. Teeth samples are used to estimate harvest age structure. Rib samples are used to check for tetracycline, the biomarker that is used to obtain statewide mark-recapture population estimates. The most recent tetracycline-marking was done in the summer of 2008, and samples were collected that year to derive a preliminary population estimate. Tetracycline persists in bones for several years, so the collection this year helps to refine the 2008 estimate.

RESULTS

The number of permits available to hunters steadily increased through the 1980–1990s, peaking at 20,840 in 1999 (Table 1). Since then the number of permits has been incrementally reduced to a low of 10,000 in 2009 (approximately 1994 level). Permits were reduced in 8 of 11 BMUs to reduce harvest pressure and over-crowding (Table 2). Due to this reduction, only 1 BMU (BCAWA) was undersubscribed (Table 3). Surplus licenses were offered only to applicants who chose this BMU as a second choice, but none of them elected to purchase a license.

The estimated number of hunters in the field in 2009 (9,300) also was the lowest since 1994 (Table 1). Total harvest (2,801) was higher than expected because the success rate (30%) was atypically high, compared to the past 6 years (Table 1). The high success rate appears largely attributable to the reduced number of hunters (Figure 2).

Harvest increased from 2008 to 2009 in every BMU except 22 and 45 (Table 4). The downward trend in BMU 45 may suggest a population decline. Other BMUs had harvests near the 5-year mean, or slightly below, simply reflecting the reduced number of hunters in most areas. BMU 11 (northwest no quota; Figure 1) continues to show a strong harvest, reflecting an increased density of bears.

Hunting success was above the 5-year mean for all BMUs except one, and was especially high in BMUs 22, 24 and 31 (Table 5). Only BMU 45 had a lower than expected success rate. Chronology of the harvest was typical, with 74% of bears harvested in the first week (Table 6).

Two key factors, fall food abundance and hunter numbers, explain most of the year-to-year variation in the number of bears killed each year (Figure 3). A regression analysis based on these 2 variables predicted a higher harvest than actually occurred during 2002–2008, but the prediction was accurate for 2009, probably because of reduced hunter numbers (Figure 2, 3). Productivity of oak, dogwood and hazel, the 3 key fall foods for bears, was average or above average (especially east-central) in 2009.

Tetracycline baits set in the summer of 2008 resulted in the biomarking of ~470 bears. From harvests in 2008 and 2009, 3,182 rib and teeth samples were examined, of which 90 were marked (2.8% in pooled sample). A range of population estimates can be obtained, depending on which recovery sample (2008, 2009, or a combination of the 2) is used. Presently, the “best” estimate is $\sim 20,000 \pm 5,500$, which is $\sim 5,000$ bears less than the 2002 estimate (Figure 4).

DISCUSSION

Harvests of bears remained consistently high during 2003–2007 (Table 1), masking an apparent decline in the population. These high harvests (>3000 bears) were due to consistently high hunting success. A reduction in permits, and thus number of hunters, should reduce the harvest in the next few years, and enable the population to grow. The population is being managed at a level that provides good hunting opportunities but also socially tolerable nuisance activity. There is no target population number, but rather a range that meets these criteria. In fact, the target population is likely to fluctuate. With a smaller population size during the 1980s, nuisance activity was often intolerable (during poor food years, at least). Since 2002, nuisance complaints have been consistently low, reflecting consistently good natural food supplies as well as a change in behavior of people (better at removing attractants, such as garbage and birdseed, and also less apt to complain about bears). Thus, it is possible that the population could grow to a higher level (e.g., 25,000) and still be publicly acceptable.

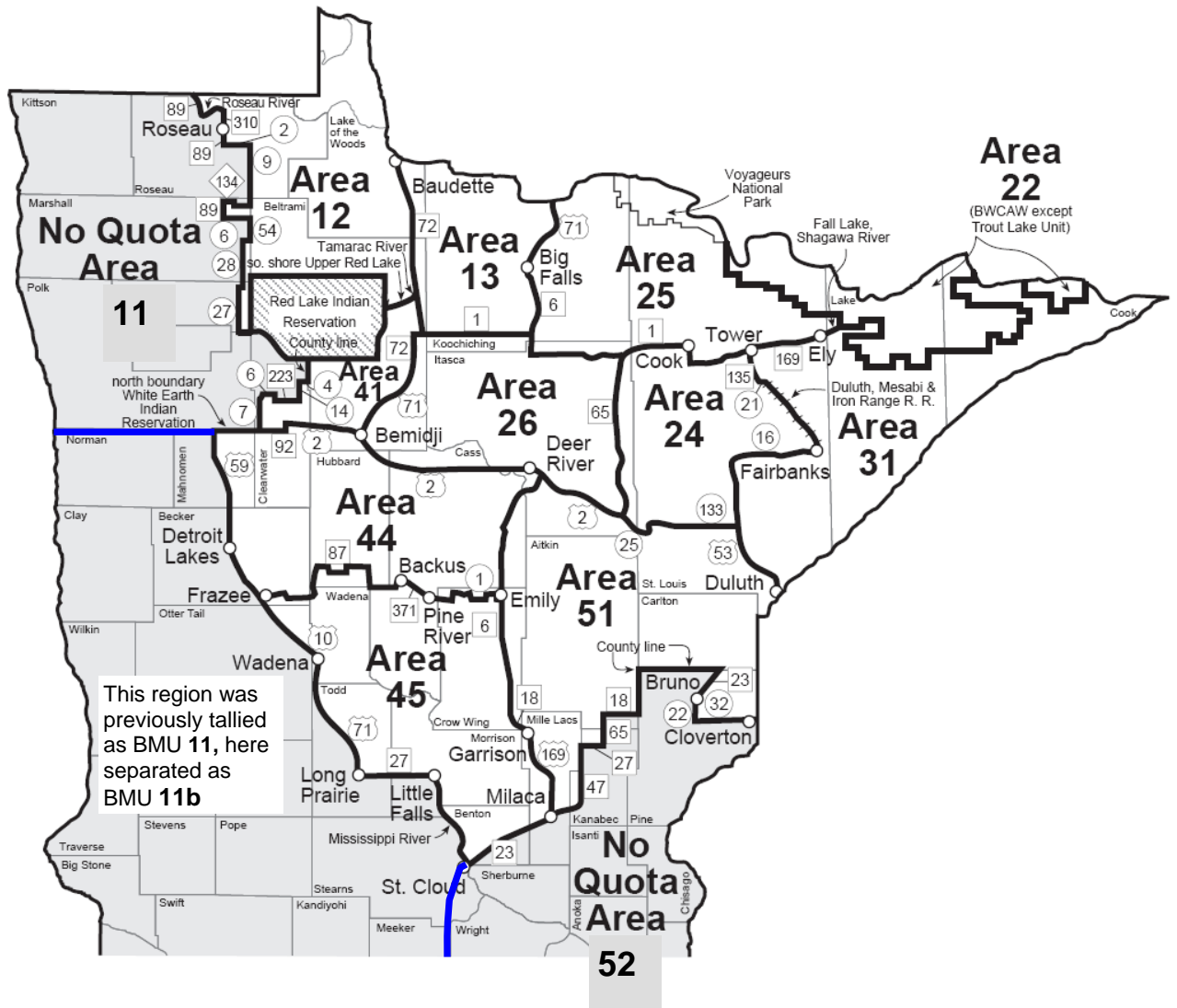


Figure 1. Bear management units (BMUs) within quota (white) and no-quota (gray) zones. Hunters in the quota zone are restricted to a single BMU, whereas no-quota hunters can hunt anywhere within that zone.

Table 1. Bear permits, licenses, hunters, harvests, and success rates, 1990–2009.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Permit applications	24861	25890	26428	27365	30127	29922	30405	27353	30245	29384	29275	26824	21886	16431	16466	16153	15725	16345	17362 ^a	17571 ^a
Permits available	6370	7140	7920	8630	9400	11950	12030	11370	18210	20840	20710	20710	20610	20110	16450	15950	14850	13200	11850	10000
Licenses purchased (total)	7094	7757	8485	9224	9826	12448	12414	11440	16737	18355	19304	16510	14639	14409	13669	13199	13164	11936	10404	9892
Quota area ^b	5568	6257	6845	7528	8125	10304	10592	9655	14941	16563	17021	13632	12350	9833	10063	9340	9169	8905	7842	7342
Quota surplus/military ^b												235	209	2554	1356	1591	1561	526	233	77 ^c
No-quota area ^b	1526	1500	1640	1696	1701	2144	1822	1785	1796	1792	2283	2643	2080	2022	2238	2268	2434	2505	2329	2473
% Licenses bought ^d																				
Of permits available ^d	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	71.4	67.7	73.4
Of permits issued ^d									84.4	87.2	83.9	69.8	66.3	65.7	68.3	67.1	68.9	70.0	67.2	73.8
Estimated no. hunters ^e	6600	7200	7900	8600	9100	11600	11500	10300	14500	15900	16800	15500	13700	13500	12800	12400	12400	11200	9800	9300
Harvest	2381	2143	3175	3003	2329	4956	1874	3212	4110	3620	3898	4936	1915	3598	3391	3340	3290	3172	2135	2801
Harvest sex ratio (%M) ^f	52	59	50	56	62	47	62	55	55	53	58	56	61	58	57	59	58	57	62	59
Success rate (%) ^g																				
Total harvest/hunters	36	30	40	35	26	43	16	31	28	23	23	29	14	26	26	26	26	28	21	30
Quota harvest/licenses	35	30	41	34	26	42	15	29	25	20	20	28	14	25	26	25	25	28	21	30

^a Includes area 99, a designation to increase preference but not to obtain a license (2008: $n = 528$, 2009 $n = 835$).

^b 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. In 2009, surplus permits available only to 2nd-choice applicants, but none purchased (see Table 3). Total licenses = quota + quota surplus + no-quota + military (no permit needed).

^c Free licenses for 10 and 11 year-olds were available beginning 2009 ($n = 45$), and included here with military licenses.

^d 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). Beginning in 2008, some permits were issued for area 99; these are no-hunt permits, just to increase preference, and are not included in this calculation.

^e 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%).

^f 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.

^g Success rates in 2001–2009 were calculated as number of successful hunters/total hunters, rather than bears killed/total hunters, because hunters could take 2 bears. In 2009, 52 hunters took more than 1 bear (46 took 2 bears on NQ license, 1 hunter took 1 quota and 1 NQ bear, and 5 hunters took 2 quota bears [illegally]); thus, the 2801 bears were taken by 2749 different hunters, so success = $2749/9300 = 30\%$.

Table 2. Number of bear hunting permits available per year, 2005–2009 (aligned with permit applications in Table 3 below; highlighted values show drop from previous year).

BMU	2009	2008	2007	2006	2005
12	450	450	500	550	550
13	600	650	700	800	900
22	150	150	150	150	150
24	650	750	900	1000	1200
25	1250	1550	1700	1900	1900
26	1000	1150	1250	1500	1500
31	1300	1700	1900	2100	2100
41	400	400	400	450	450
44	1100	1350	1500	1700	1700
45	600	1000	1200	1200	1500
51	2500	2700	3000	3500	4000
Total	10000	11850	13200	14850	15950

Table 3. Number of bear hunting license applicants, and number and percent of available surplus licenses bought, 2005–2009^a. Shaded values indicate undersubscribed areas.

BMU	2009		2008		2007		2006		2005	
	Apps	Surplus bought	Apps	Surplus bought	Apps	Surplus bought	Apps	Surplus bought	Apps	Surplus bought
12	876		857		811		1005		864	
13	700		709		745		680	120 100%	714	186 100%
22	91	0 ^b	85	50 77%	87	51 81%	92	58 100%	65	46 54%
24	843		825		742	159 100%	624	367 98%	749	270 60%
25	1694		1793	4 ^c	1799		1789	112 100%	1923	
26	1874		1999	2 ^c	2028		1915		1997	
31	2423		2388	3 ^c	2383		2290		2097	4 100%
41	685		656		577		683		653	
44	2787		2821		2669		2838		2884	
45	941		873	128 100%	936	266 100%	840	360 100%	927	346 60%
51	3822		3828		3568		2969	531 100%	3276	726 100%
Total	16736 ^d		16834 ^d	178 92%	16345	476 98%	15725	1548 ~100%	16149	1578 78%

^a Surplus licenses available beginning in 2001. This was discontinued in 2009 and replaced by 2nd choice lottery applicants.

^b No 2nd choice applicants bought a license for BMU 22, so it remained undersubscribed.

^c Courtesy licenses issued by Commissioner, not actual surplus.

^d Beginning in 2008, applicants could apply for area 99 in order to receive preference, but not buy a license; these are not included in this total.

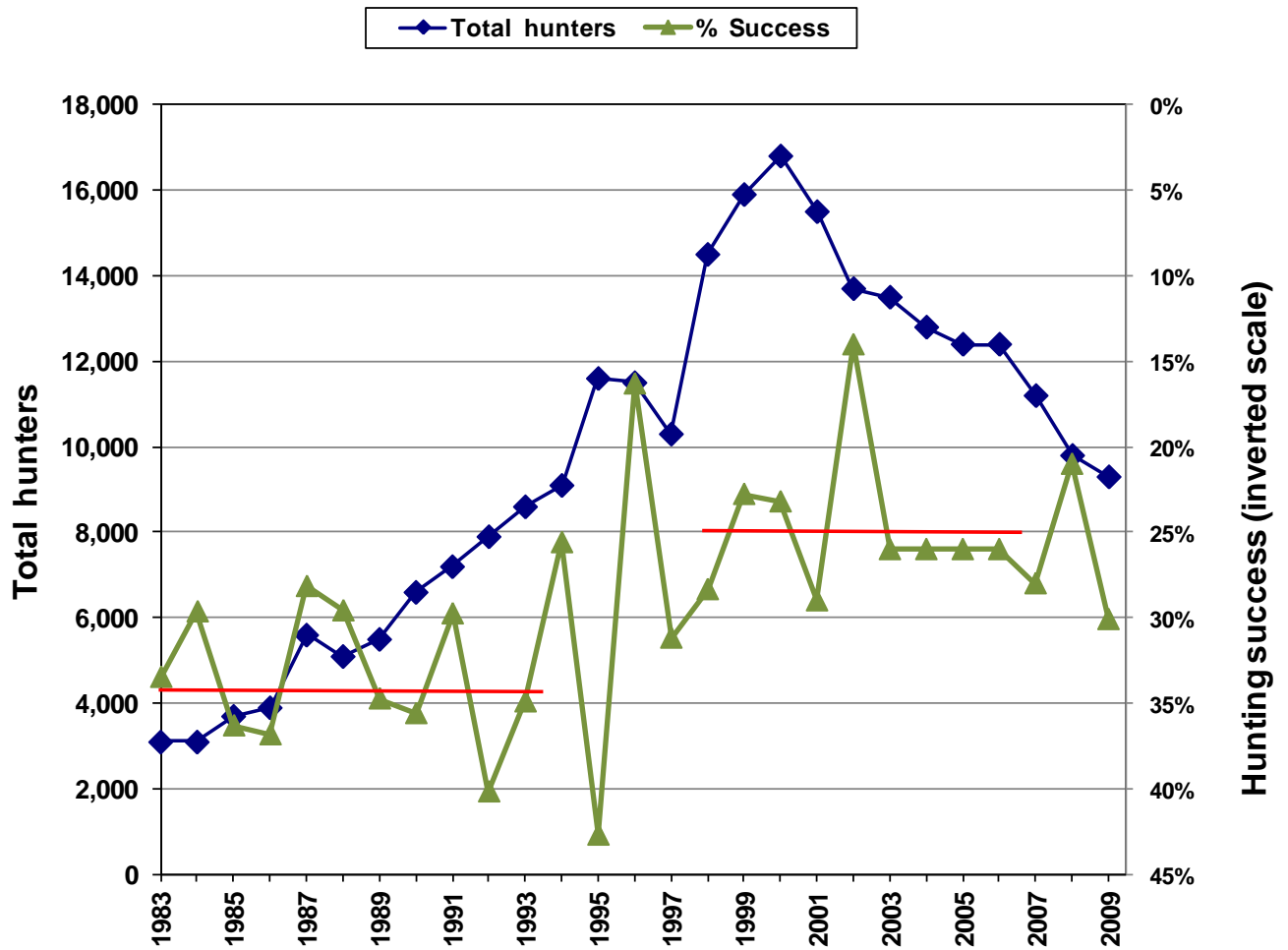


Figure 2. Relationship between hunting success (note inverted scale) and hunter numbers. Red horizontal lines show mean hunting success for periods with <9,000 hunters vs >12,000 hunters. Other variation in hunting success is mainly attributable to food conditions.

Table 4. Minnesota bear harvest tally^a for 2009 by Bear Management Unit (BMU) and sex compared to harvests during 2004-2008 and record high harvests.

BMU	2009					2008	2007	2006	2005	2004	5 year mean	Record high harvest (yr)
	M	(%M)	F	U	Total							
Quota												
12	81	(58)	59	0	140	101	124	70	165	165	125	263 (01)
13	101	(68)	48	0	149	129	163	151	205	197	169	258 (95)
22	3	(43)	4	0	7	7	15	15	8	10	11	41 (89)
24	77	(51)	74	0	151	100 ^b	134	194	144	212	157	288 (95)
25	187	(54)	157	0	344	298 ^b	369	421	404	546	408	584 (01)
26	114	(50)	112	2	228	137 ^b	315	314	285	320	274	513 (95)
31	256	(67)	128	0	384	248 ^b	398	482	445	484	411	697 (01)
41	55	(53)	49	0	104	77	104	40	104	83	82	201 (01)
44	142	(56)	113	0	255	196	333	192	273	283	255	643 (95)
45	20	(48)	22	0	42 ^c	72	113	118	107	118	106	178 (01)
51	258	(62)	158	0	416	344	557	721	505	544	534	895 (01)
Total	1294	(58)	924	2	2220	1709	2625	2718	2759 ^d	2962	2555	4288 (01)
No Quota ^e												
11	183	(58)	131	1	315	172	324 ^f	114	334	175	224	351 ^d (05)
11b ^g	8	(89)	1	0	9	3	4	6	1	2	3	
52	156	(61)	101	0	257	251	219	400	223	252	269	400 (06)
Total	347	(60)	233	1	581	426	547	520	581 ^d	429	501	678 (95)
State	1641	(59)	1157	3	2801	2135	3172	3290 ^d	3340 ^d	3391	3066	4956 (95)

^a Hunters receive tooth envelopes and registration stations. The following table shows the number of tooth envelopes that had no corresponding registration slip or e-registration. These were added to the harvest tally.

Year	Quota area	No-quota area
2004	96	39
2005	179	31
2006	63	15
2007	27	9
2008	23	4
2009	19	14

^b Lowest harvest since 1996.

^c Second lowest harvest in this BMU, since it was established in 1994.

^d The estimated registered harvest, including those in which registration data were lost and no tooth envelope was received. Value does not match column total because BMU data were uncorrected for lost registration data.

^e Some hunters with no-quota licenses hunted in the quota area, and their kills were assigned to the BMU where they apparently hunted ($n = 28$ in 2006, 27 in 2007, 14 in 2008, 3 in 2009). Some quota area hunters also apparently hunted in the wrong BMU, based on the block where they said they killed a bear, but these were recorded in the BMU where they were assigned, not the BMU of the indicated harvest block, presuming most were misreported kill locations.

^f Second highest harvest for this area. Third highest was 321 bears in 2001.

^g Subset of BMU 11 south of the main harvest area (Fig 2).

Table 5. Bear hunting success (%) by BMU, measured as the registered harvest (excluding second bear) divided by the number of licenses sold^a, 2004–2009.

BMU	Mean success 2004-2008	2009		2008		2007		2006		2005 ^b		2004	
		% Success	% 2 bears ^c	% Success	% 2 bears ^c	% Success	% 2 bears ^c	% Success	% 2 bears ^c	% Success	% 2 bears ^c	% Success	% 2 bears ^c
<u>Quota</u>	<u>2</u> <u>5</u>												
12	32	39	32	36	19	41	33						
13	30	32	28	31	24	32	33						
22	11	16 ^d	8	14	14	10	11						
24	22	31 ^d	20	20	25	20	27						
25	32	36	28 ^e	31	30	30	38						
26	30	31	17 ^e	36	30	34	31						
31	29	38 ^d	21 ^e	28	33	31	33						
41	26	34	27	35	13	31	23						
44	22	30	21	30	16	24	20						
45	13	11 ^e	11 ^e	14	14	13	12						
51	<u>2</u> <u>2</u>	23	19	27	28	18	19						
<u>No Quota</u>	<u>2</u> <u>0</u>												
<u>Statewide</u>	<u>2</u> <u>4</u>												

^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 only in the no-quota area since 2002. A few hunters also apparently shot 2 bears in the quota area (and submitted 2 sets of teeth), but these are not shown here because the numbers are very low (see Table 1, footnote g).

^d Highest success since 1997 (BMU 22, 31 & statewide) or 1995 (BMU 24).

^e Lowest success since 2002.

^f Of the no-quota hunters, 34 took 2 bears in BMU 11 versus only 11 in BMU 52.

Table 6. Cumulative bear harvest (% of total harvest) by date, 1990–2009.

Year	Day of week for opener	Aug 22/23 – Aug 31	Sep 1 – Sep 7	Sep 1 – Sep 14	Sep 1 – Sep 30
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 ^a	70	87
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 ^a	69	90
2003	Mon		72	84	96
2004	Wed		68	82	95
2005	Thu		72	81	94
2006	Fri		69	83	96
2007	Sat		69	82	96
2008	Mon		58 ^a	71	92
2009	Tue		74	86	96

^a The low proportion of total harvest taken during the opening week (<60%) reflects a high abundance of natural foods.

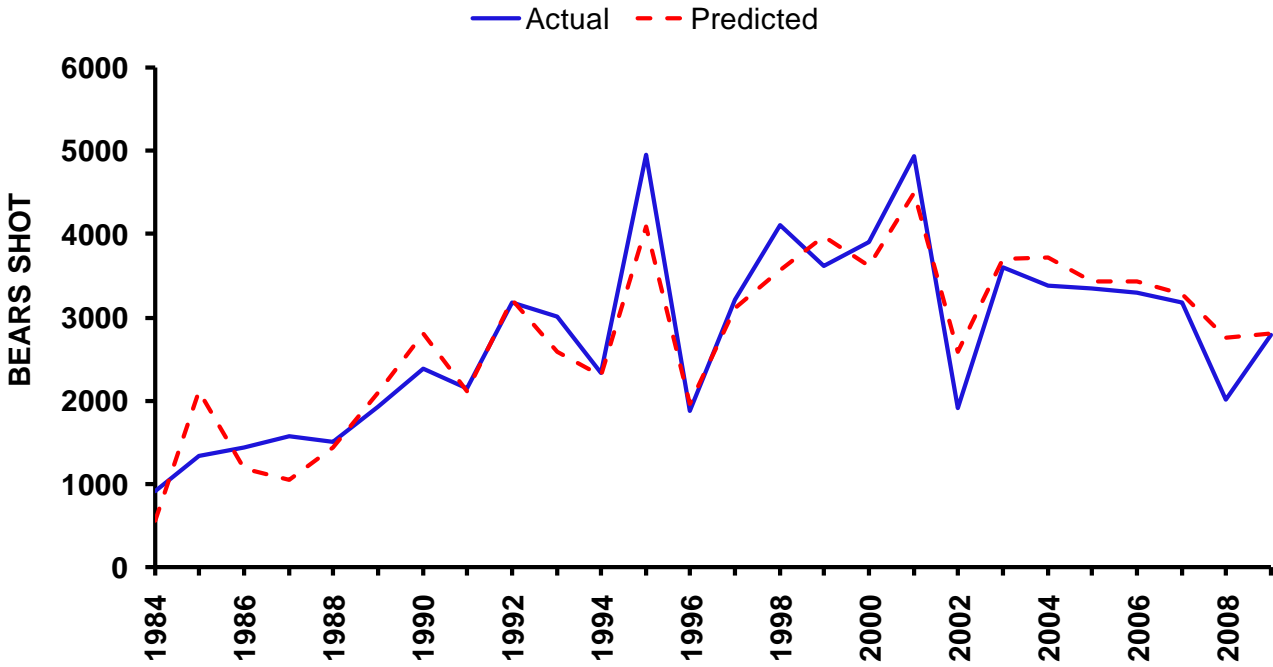


Figure 3. Number of bears harvested vs. number predicted, based on fall food abundance and hunter numbers. Prediction for 2009 based on regression from 1984–2008 (top graph; $R^2 = 0.86$) or 2000–2008 (bottom graph; $R^2 = 0.97$).

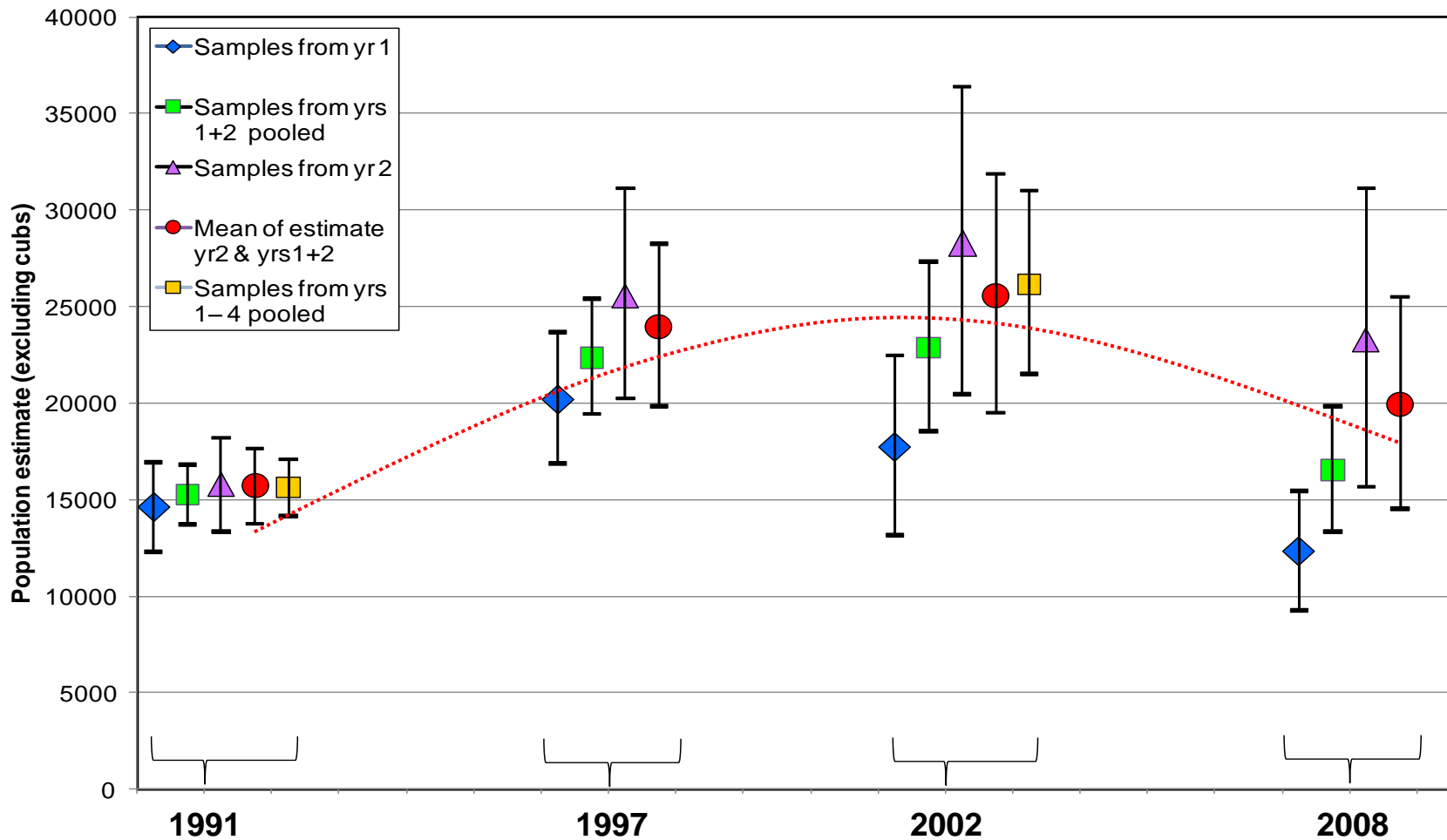


Figure 4. Statewide population estimates derived from tetracycline marking in 1991, 1997, 2002, and 2008. Each cluster of estimates pertains to the year of marking, with each point (and associated 95% CI) representing a different recapture sample (yr 1 = year of marking, yr 2 = year after marking). Simulation modeling suggested that samples pooled from multiple years (yellow squares) are likely to be most accurate, but in the absence of many years of sampling, the mean of the estimate derived from yr 2 samples and the estimate derived from yr 1+2 samples may be most reliable; thus, a red trend line is drawn through those points.

2009 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 190,000. In 2009, hunters registered 194,186 deer







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

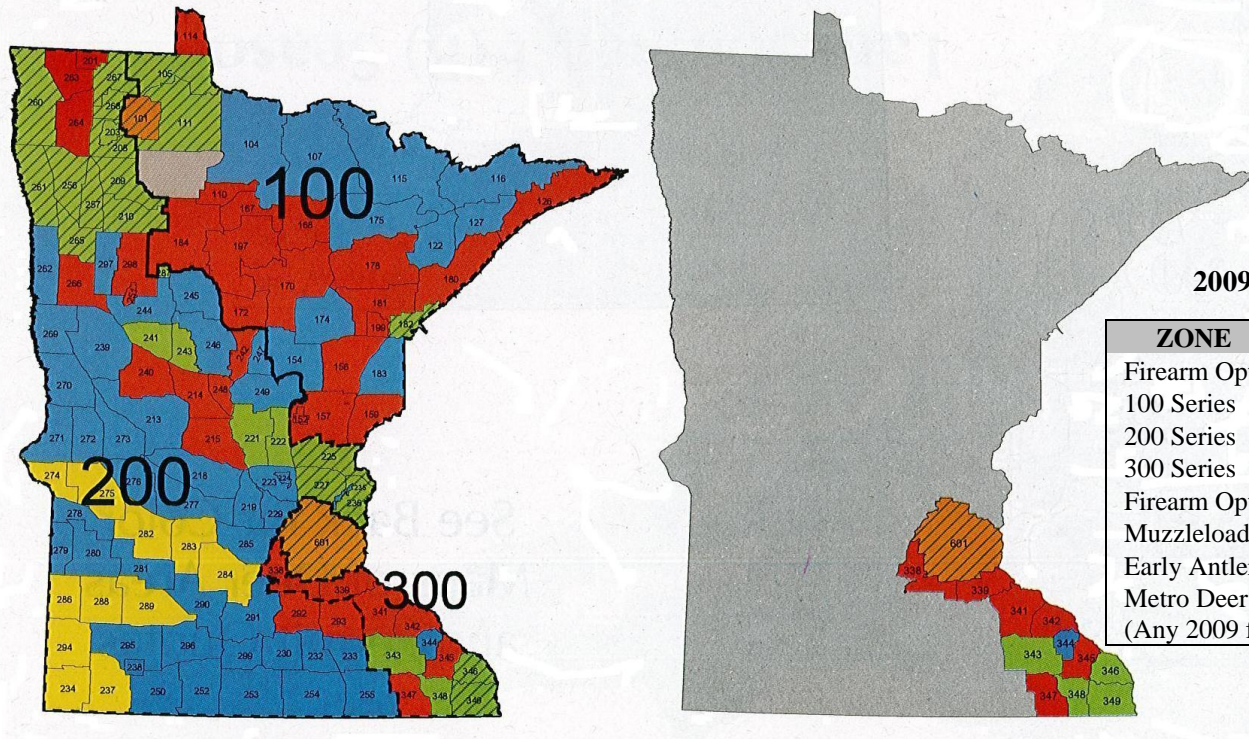
Outcome of the 2009 deer harvest are presented in the following tables.

2009 DEER AREA MANAGEMENT DESIGNATIONS

KEY	
	Youth Antlerless Only - 1 deer limit
	Lottery - 1 deer limit
	Managed - 2 deer limit
	Intensive - 5 deer limit
	No Limit Antlerless
	Early Antlerless - 2 deer in addition to intensive

Statewide (A) License

Late Southeast (B) License



2009 Minnesota Firearms Deer Seasons

ZONE	DATES
Firearm Option Statewide (A)*	
100 Series	Nov. 7-22
200 Series	Nov. 7-15
300 Series	Nov. 7-15
Firearm Option Late Southeast (B)**	Nov. 21-29
Muzzleloader****	Nov. 28-Dec. 13
Early Antlerless Season***	Oct. 10-11
Metro Deer Management Area (601)*** (Any 2009 firearms or muzzleloader.)	Nov. 7-29

Figure 1. 2009 Firearms and Archery Deer Seasons.

2009 Minnesota Archery Deer Season Dates: September 19-December 31.

Antlerless deer and legal bucks may be taken by archery, except only legal bucks may be taken in permit areas that have no either-sex permits or have youth-only either-sex permits.

Table 1. Statewide Firearms, Archery, and Muzzleloader Harvest, License Sales, and Success Rates, 1999-2009.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
REGULAR FIREARMS											
Resident License Sales	395,745	400,814	401,005	367,964	344,875	309,698	291,298	299,774	285,286	376,006	377,077
Non-Resident License Sales	9,970	10,595	10,972	10,835	11,334	12,036	12,523	12,520	12,520	11,883	11,759
Bonus Permit Sales	23,785	34,802	59,013	105,699	194,201	183,186	184,566	167,343	145,522	190,156	140,920
Multi-Zone Buck License Sales	43,903	42,669	41,921	35,658	32,929	32,359	28,233	15,984	15,051	N/A	N/A
Youth License Sales	2,038	3,215	4,011	2,884	34,463	51,347	50,501	49,599	49,242	50,397	56,678
All Season Deer License Sales		2,384	3,986	22,125	30,998	46,008	59,090	75,511	76,385	N/A	N/A
Total License Sales	475,441	495,289	519,601	545,165	648,800	634,634	626,211	620,731	584,006	628,442	586,434
Registered Buck Harvest ¹	92,584	102,961	98,894	101,333	110,440	116,612	95,594	95,695	97,528	85,646	83,820
Antlerless Permits Offered	177,380	232,595	286,540	365,667	31,625	30,760	28,830	18,925	18,830	32,325	60,100
Antlerless Permits Issued	135,852	180,490	196,603	192,907	25,386	24,111	25,656	18,925	18,830	32,325	60,100
Antlerless Permits App.	214,597	237,571	225,341	202,086	30,253	28,454	31,403	31,403	31,403	31,403	90,882
Registered AL Harvest ¹	71,681	88,492	98,169	102,280	147,420	123,278	119,363	135,981	118,860	98,147	78,525
Registered Total Harvest ¹	164,265	191,453	197,063	203,613	257,860	239,890	214,957	231,676	216,388	183,793	162,345
Registered % Successful ²	34.8	38.6	37.9	37.3489	39.7	37.8	34.3	37.3	37.1	35.1	32.1
Gun	451,656	459,677	461,895	439,466	454,599	451,448	441,645	453,388	438,484	438,286	445,514
ARCHERY											
Resident License Sales	66,226	68,947	69,608	57,532	59,339	50,601	50,293	49,595	52,780	87,872	88,707
Non-Resident License Sales	1,073	1,271	1,288	1,275	1,428	1,144	1,207	1,286	1,509	1,509	1,610
Youth Archery Sales	N/A	N/A	N/A	N/A	3,748	7,261	7,489	7,688	7,663	9,005	9,157
Mgmt Permit License Sales	16,945	20,393	22,141	18,126	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total License Sales	84,244	90,611	93,037	76,933	60,767	59,006	58,989	58,569	61,952	99,033	99,474
Total Harvest - Archery Lic/Bonus	13,376	15,776	15,884	14,744	19,335	17,237	18,975	17,076	17,261	22,632	20,629
Total Harvest - All-Season license					2,356	3,489	4,563	8,284	6,900	N/A	N/A
Total Archery Harvest	13,376	15,776	15,884	14,744	21,691	20,726	23,538	25,360	24,161	22,632	20,629
Registered % Successful ²	15.8	17.4107	17.1	19.2	22.3	29.2	24.6	24.8	24.3	18.5	17.5
MUZZLELOADER											
Total Muzzleloader License Sales	--	11,972	13,043	11,764	9,142	10,512	9,226	10,781	9,867	64,673	63,282
Estimated All-Season Hunters	--	--	--	--	12,020	14,168	23,293	23,293	26,813	N/A	N/A
Total Muzzleloader Harvest	2,928	4,548	4,494	3,505	9,466	9,289	15,421	13,507	12,138	9,572	7,929
Registered % Successful ²		37.9886	34.5	29.8	44.7	37.6	47.4	39.6	28.2	13.4	11.3
TOTAL Registered Harvest	180,569	211,777	217,452	222,050	290,525	260,604	255,736	270,778	260,434	221,837	194,186

¹Does not include free landowner licenses

²Based on total license sales - does not include all-season deer

Table 2. Deer Harvest by License Type and Zone, 2009.

Firearms/Zone	Hunters	Bucks	Harvest		Overall Success
			Antlerless	Total	
1	172,988	34,015	30,570	64,585	33.4%
2	221,221	41,374	37,150	78,524	31.8%
3A	22,873	5,729	4,602	10,331	38.7%
3B	17,405	1,890	4,945	6,835	32.9%
Early Season	11,559	0	2,891	2,891	21.4%
Free Landowner ¹	3,631	0	1,036	1,036	28.5%
Muzzleloader ²	63,282	2,844	5,085	7,929	11.3%
Archery ³	99,474	7,650	12,979	20,629	17.5%
TOTAL⁴	489,096	94,367	99,819	194,186	33.8%

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

² Total number of people who bought only a muzzleloader license was 10,262.

³ Includes Camp Ripley. Total number of people who bought only an archery license was 28,293.

⁴ Due to the fact that a hunter can buy multiple licenses, hunter numbers are an estimate.

Table 3. Firearms Harvest and Harvest per Square Mile by Permit Area, 2009. Includes all firearm licenses but does not include early antlerless harvest.

Permit Area	Zone	Adult Male	Fawn Male	Adult Female	Fawn Female	Total	Area Size (sq.mi.)	Bucks/Sq. Mile	Antlerless/Sq. Mile	Total/Sq. Mile
101	1A	342	75	232	73	722	496	0.69	0.77	1.46
104	1A	929	66	264	28	1,287	2,078	0.45	0.17	0.62
105	1A	786	171	586	136	1,679	740	1.06	1.21	2.27
107	1A	1405	45	207	24	1,681	1,896	0.74	0.15	0.89
110	1A	647	139	469	115	1,370	300	2.16	2.41	4.57
111	1A	601	110	401	83	1,195	1,437	0.42	0.41	0.83
114	1A	48	5	29	1	83	123	0.39	0.28	0.67
115	1A	1590	81	408	44	2,123	1,867	0.85	0.29	1.14
116	1A	119	2	29	0	150	1,164	0.10	0.03	0.13
122	1A	547	26	137	24	734	619	0.88	0.30	1.19
126	1A	471	41	239	34	785	943	0.50	0.33	0.83
127	1A	104	0	21	2	127	561	0.19	0.04	0.23
152	1A	154	37	128	29	348	61	2.52	3.18	5.70
154	1A	1615	212	667	117	2,611	760	2.13	1.31	3.44
156	1A	1859	474	1300	307	3,940	825	2.25	2.52	4.78
157	1A	2317	640	1653	420	5,030	889	2.61	3.05	5.66
159	1A	1298	286	968	218	2,770	568	2.29	2.59	4.88
167	1A	574	122	498	93	1,287	432	1.33	1.65	2.98
168	1A	1099	271	934	202	2,506	723	1.52	1.95	3.47
170	1A	2285	609	1787	445	5,126	1,311	1.74	2.17	3.91
172	1A	1147	407	1340	301	3,195	451	2.54	4.54	7.09
174	1A	1211	141	469	65	1,886	835	1.45	0.81	2.26
175	1A	1692	96	478	65	2,331	1,249	1.35	0.51	1.87
178	1A	2476	440	1499	302	4,717	1,259	1.97	1.78	3.75
180	1A	1452	159	668	122	2,401	983	1.48	0.97	2.44
181	1A	1688	307	1011	211	3,217	709	2.38	2.16	4.54
182	1A	540	126	350	93	1,109	269	2.01	2.12	4.13
183	1A	1356	151	487	92	2,086	663	2.04	1.10	3.15
184	1A	2696	716	2191	559	6,162	1,231	2.19	2.82	5.01
197	1A	851	170	604	128	1,753	975	0.87	0.93	1.80
199	1A	134	13	59	9	215	148	0.91	0.55	1.45
201	2A	90	18	47	22	177	161	0.56	0.54	1.10
203	2A	97	16	54	13	180	118	0.82	0.70	1.53
208	2A	233	40	174	37	484	379	0.62	0.66	1.28
209	2A	574	123	415	131	1,243	639	0.90	1.05	1.94
210	2A	996	231	743	225	2,195	615	1.62	1.95	3.57
213	2A	1518	247	712	187	2,664	1,057	1.44	1.08	2.52
214	2A	1342	461	1008	339	3,150	557	2.41	3.25	5.66
215	2A	952	365	702	264	2,283	701	1.36	1.90	3.25
218	2A	783	153	412	114	1,462	884	0.89	0.77	1.65
219	2A	526	97	251	66	940	392	1.34	1.06	2.40
221	2A	960	347	701	278	2,286	642	1.50	2.07	3.56
222	2A	886	276	606	185	1,953	413	2.15	2.59	4.73
223	2A	479	77	180	49	785	377	1.27	0.81	2.08
224	2A	87	14	54	13	168	47	1.86	1.73	3.60
225	2A	1333	389	830	251	2,803	618	2.16	2.38	4.53
227	2A	835	241	521	150	1,747	471	1.77	1.94	3.71

Table 3. (Continued)

Permit Area	Zone	Adult Male	Fawn Male	Adult Female	Fawn Female	Total	Area Size (sq.mi.)	Bucks/Sq. Mile	Antlerless/Sq. Mile	Total/Sq. Mile
229	2A	224	43	82	18	367	287	0.78	0.50	1.28
230	2A	218	28	90	25	361	452	0.48	0.32	0.80
232	2A	219	17	80	9	325	377	0.58	0.28	0.86
233	2A	172	14	55	11	252	385	0.45	0.21	0.66
234	2A	142	2	5	0	149	636	0.22	0.01	0.23
235	2A	43	4	11	2	60	32	1.34	0.53	1.87
236	2A	714	164	410	80	1,368	372	1.92	1.76	3.68
237	2A	163	2	11	1	177	728	0.22	0.02	0.24
238	2A	65	1	11	1	78	95	0.68	0.14	0.82
239	2A	1289	264	724	192	2,469	922	1.40	1.28	2.68
240	2A	1767	506	1287	379	3,939	642	2.75	3.39	6.14
241	2A	1353	537	1310	460	3,660	417	3.25	5.54	8.78
242	2A	515	125	475	113	1,228	215	2.40	3.32	5.72
243	2A	870	345	868	295	2,378	314	2.77	4.81	7.58
244	2A	1453	257	639	167	2,516	583	2.49	1.82	4.31
245	2A	1412	244	759	157	2,572	583	2.42	1.99	4.41
246	2A	1682	294	993	204	3,173	772	2.18	1.93	4.11
247	2A	620	103	348	69	1,140	229	2.71	2.27	4.97
248	2A	363	80	238	80	761	212	1.71	1.88	3.59
249	2A	1078	237	579	146	2,040	502	2.15	1.92	4.07
250	2A	320	4	38	3	365	711	0.45	0.06	0.51
251	2A	60	29	70	28	187	55	1.09	2.30	3.39
252	2A	270	12	48	3	333	715	0.38	0.09	0.47
253	2A	356	20	88	10	474	974	0.37	0.12	0.49
254	2A	435	41	136	22	634	930	0.47	0.21	0.68
255	2A	332	35	101	15	483	774	0.43	0.20	0.62
256	2A	430	111	393	100	1,034	653	0.66	0.92	1.58
257	2A	365	106	342	87	900	412	0.89	1.30	2.18
260	2A	542	96	505	93	1,236	1,249	0.43	0.56	0.99
261	2A	144	28	132	18	322	795	0.18	0.22	0.41
262	2A	150	12	42	14	218	677	0.22	0.10	0.32
263	2A	401	60	250	57	768	512	0.78	0.72	1.50
264	2A	671	142	466	112	1,391	669	1.00	1.08	2.08
265	2A	468	144	411	107	1,130	494	0.95	1.34	2.29
266	2A	403	81	301	79	864	617	0.65	0.75	1.40
267	2A	195	37	147	52	431	472	0.41	0.50	0.91
268	2A	264	66	204	46	580	229	1.15	1.38	2.53
269	2A	202	16	50	12	280	650	0.31	0.12	0.43
270	2A	148	5	21	11	185	748	0.20	0.05	0.25
271	2A	173	10	31	4	218	632	0.27	0.07	0.34
272	2A	179	9	18	6	212	531	0.34	0.06	0.40
273	2A	325	41	139	35	540	572	0.57	0.38	0.94
274	2A	135	0	6	0	141	355	0.38	0.02	0.40
275	2A	240	1	2	0	243	764	0.31	0.00	0.32
276	2A	394	27	88	12	521	543	0.73	0.23	0.96
277	2A	1122	101	325	53	1,601	813	1.38	0.59	1.97
278	2A	403	27	77	23	530	401	1.01	0.32	1.32

Table 3. (Continued)

Permit Area	Zone	Adult Male	Fawn Male	Adult Female	Fawn Female	Total	Area Size (sq.mi.)	Bucks/Sq. Mile	Antlerless/Sq. Mile	Total/Sq. Mile
279	2A	187	9	56	3	255	344	0.54	0.20	0.74
280	2A	174	9	41	11	235	675	0.26	0.09	0.35
281	2A	425	16	96	15	552	575	0.74	0.22	0.96
282	2A	97	0	5	0	102	779	0.12	0.01	0.13
283	2A	200	6	4	1	211	614	0.33	0.02	0.34
284	2A	263	3	12	3	281	838	0.31	0.02	0.34
285	2A	350	28	121	19	518	550	0.64	0.31	0.94
286	2A	231	2	11	1	245	446	0.52	0.03	0.55
287	2A	83	41	137	37	298	46	1.81	4.68	6.49
288	2A	373	4	17	4	398	625	0.60	0.04	0.64
289	2A	150	0	8	2	160	816	0.18	0.01	0.20
290	2A	293	16	86	6	401	662	0.44	0.16	0.61
291	2A	574	57	155	23	809	802	0.72	0.29	1.01
292	2A	395	90	209	50	744	480	0.82	0.73	1.55
293	2A	393	88	245	53	779	511	0.77	0.75	1.52
294	2A	211	1	10	1	223	686	0.31	0.02	0.33
295	2A	396	18	58	5	477	840	0.47	0.10	0.57
296	2A	257	15	53	8	333	666	0.39	0.11	0.50
297	2A	189	8	35	6	238	438	0.43	0.11	0.54
298	2A	676	162	517	134	1,489	618	1.09	1.32	2.41
299	2A	253	17	90	14	374	386	0.66	0.31	0.97
338	3A	237	49	128	29	443	454	0.52	0.45	0.98
338	3B	57	17	82	24	180	454	0.13	0.27	0.40
339	3A	230	41	117	29	417	394	0.58	0.47	1.06
339	3B	39	37	99	21	196	394	0.10	0.40	0.50
341	3A	659	113	313	83	1,168	611	1.08	0.83	1.91
341	3B	255	155	360	114	884	611	0.42	1.03	1.45
342	3A	519	72	289	60	940	350	1.48	1.20	2.68
342	3B	223	115	319	93	750	350	0.64	1.50	2.14
343	3A	608	129	386	76	1,199	662	0.92	0.89	1.81
343	3B	193	101	318	74	686	662	0.29	0.74	1.04
344	3A	437	24	84	9	554	189	2.31	0.62	2.92
344	3B	90	54	146	41	331	189	0.47	1.27	1.75
345	3A	379	85	186	43	693	326	1.16	0.96	2.13
345	3B	150	70	242	50	512	326	0.46	1.11	1.57
346	3A	751	126	407	85	1,369	319	2.36	1.94	4.30
346	3B	232	139	420	102	893	319	0.73	2.07	2.80
347	3A	420	65	171	45	701	434	0.97	0.65	1.62
347	3B	127	53	183	35	398	434	0.29	0.63	0.92
348	3A	542	89	369	87	1,087	332	1.63	1.64	3.28
348	3B	146	77	273	76	572	332	0.44	1.28	1.72
349	3A	953	124	583	107	1,767	492	1.94	1.65	3.59
349	3B	361	179	685	175	1,400	492	0.73	2.11	2.85

Table 3. (Continued)

Permit Area	Zone	Adult Male	Fawn Male	Adult Female	Fawn Female	Total	Area Size (sq.mi.)	Bucks/Sq. Mile	Antlerless/Sq. Mile	Total/Sq. Mile
601	Metro	629	125	428	85	1,267	1,633	0.39	0.39	0.78
901	Park	3	1	3	0	7				
902	Park	50	35	95	35	215				
903	Park	1	0	7	1	9				
904	Park	7	1	2	0	10				
905	Park	3	1	3	1	8				
906	Park	8	2	9	4	23				
907	Park	0	0	4	1	5				
908	Park	2	0	2	0	4				
909	Park	0	3	0	1	4				
910	Park	0	6	6	1	13				
912	Park	25	25	41	23	114				
913	Park	1	2	6	1	10				
914	Park	13	5	3	2	23				
915	Park	3	2	8	6	19				
916	Park	31	26	32	15	104				
918	Park	2	2	6	1	11				
920	Park	0	3	8	0	11				
921	Park	3	5	5	6	19				
922	Park	4	1	9	4	18				
923	Park	0	3	3	1	7				
925	Park	9	8	20	4	41				
926	Park	2	1	3	2	8				
927	Park	6	6	25	12	49				
928	Park	0	1	1	0	2				
929	Park	1	4	15	5	25				
930	Park	8	1	4	0	13				
931	Park	13	9	21	6	49				
932	Park	5	2	5	3	15				
TOTAL		83,820	16,545	49,829	12,151	162,345				

Table 4. Firearm Bonus Permit Harvest by Permit Area, 2009
Managed Permit Areas.

Permit Area	Zone	Fawn Male	Adult Female	Fawn Female	Total
110	1A	68	239	68	375
114	1A	2	17	1	20
126	1A	21	146	17	184
152	1A	17	66	16	99
156	1A	248	687	172	1,107
157	1A	321	853	228	1,402
159	1A	145	476	121	742
167	1A	54	243	50	347
168	1A	118	457	99	674
170	1A	324	940	251	1,515
172	1A	209	680	163	1,052
178	1A	229	814	164	1,207
180	1A	77	390	77	544
181	1A	190	585	131	906
184	1A	420	1297	351	2,068
197	1A	78	320	69	467
199	1A	4	35	3	42
201	2A	10	25	12	47
214	2A	216	515	190	921
215	2A	137	313	110	560
240	2A	254	699	214	1,167

Permit Area	Zone	Fawn Male	Adult Female	Fawn Female	Total
242	2A	73	235	60	368
248	2A	36	116	46	198
251	2A	16	38	16	70
263	2A	28	142	39	209
264	2A	78	257	60	395
266	2A	41	166	39	246
292	2A	37	80	24	141
293	2A	53	115	32	200
298	2A	84	281	79	444
338	3A	28	67	13	108
339	3A	23	66	17	106
341	3A	59	209	61	329
342	3A	41	196	42	279
345	3A	45	117	26	188
347	3A	41	121	35	197
338	3B	9	33	11	53
339	3B	22	46	12	80
341	3B	67	161	58	286
342	3B	54	151	50	255
345	3B	26	92	20	138
347	3B	29	98	17	144
TOTAL		4,032	12,584	3,264	19,880

Table 4. Firearm Bonus Permit Harvest by Permit Area, 2009.

Intensive Permit Areas

Permit Area	Zone	Fawn Male	Adult Female	Fawn Female	Total
101	1A	10	21	7	38
105	1A	112	424	90	626
111	1A	65	241	42	348
182	1A	84	244	72	400
203	2A	12	40	8	60
208	2A	28	103	27	158
209	2A	94	289	99	482
210	2A	164	506	165	835
221	2A	217	423	189	829
222	2A	171	366	119	656
225	2A	245	487	157	889
227	2A	151	327	97	575
236	2A	105	250	62	417
241	2A	380	921	327	1,628
243	2A	208	541	190	939
256	2A	71	286	75	432

Permit Area	Zone	Fawn Male	Adult Female	Fawn Female	Total
257	2A	73	219	61	353
260	2A	64	341	74	479
261	2A	19	91	15	125
265	2A	98	295	77	470
267	2A	25	114	34	173
268	2A	36	146	34	216
287	2A	30	88	29	147
343	3A	87	275	58	420
346	3A	88	307	67	462
348	3A	57	266	67	390
349	3A	91	460	88	639
343	3B	62	188	51	301
346	3B	73	239	67	379
348	3B	42	130	48	220
349	3B	105	415	102	622
601	Metro	87	292	66	445
Total		3,154	9,335	2,664	15,153

Table 5. Early Antlerless Season Harvest by Permit Area, 2009.

Permit Area	Fawn Male	Adult Female	Fawn Female	Total
101	6	26	2	34
105	30	137	34	201
111	15	84	22	121
182	20	80	26	126
208	11	20	9	40
209	33	151	28	212
210	62	184	53	299
225	79	181	72	332
227	18	86	20	124
236	15	77	14	106
256	14	90	20	124
257	18	78	35	131
260	25	112	21	158
261	5	19	6	30
265	43	96	39	178
267	3	25	5	33
268	3	36	7	46
346	53	153	54	260
349	35	175	70	280
601	14	33	8	55
Total	502	1,843	545	2,890

Table 6. Summary of Firearms Special Hunts, 2009. Includes regular, youth, and bonus permits.

Area	Dates	Permits Issued	Harvest				Total
			Adult Male	Adult Female	Fawn Male	Fawn Female	
900 - Schoolcraft State Park ¹	11/7-11/22	Unl.	0	0	0	0	0
901 - Rice Lake Nat. Wildlife Refuge	11/14-11/22	40*	3	1	3	0	7
902 - St. Croix State Park ¹	11/14-11/17	550**	50	35	95	35	215
903 - Savanna Portage State Park ¹	11/14-11/18	40***	1	0	7	1	9
904 - Gooseberry Falls State Park ¹	11/7-11/22	30*	7	1	2	0	10
905 - Split Rock Lighthouse State Park ¹	11/7-11/22	30*	3	1	3	1	8
906 - Tettegouche State Park ¹	11/7-11/22	125*	8	2	9	4	23
907 - Scenic State Park ¹	11/7-11/22	30*	0	0	4	1	5
908 - Hayes Lake State Park ¹	11/7-11/22	50*	2	0	2	0	4
909 - Lake Bemidji State Park ¹	11/7-11/10	35#	0	3	0	1	4
910 - Zippel Bay State Park ¹	11/7-11/22	55#	0	6	6	1	13
911 - Judge CR Magney SP*	11/7-11/22	Unl.	0	0	0	0	0
912 - Wild River State Park ¹	11/7-11/10	150**	25	25	41	23	114
913 - Lake Carlos State Park ¹	11/7-11/10	20#	1	2	6	1	10
914 - William O'Brien State Park ¹	11/7-11/8	65*	13	5	3	2	23
915 - Lake Bronson State Park ¹	11/7-11/15	30**	3	2	8	6	19
916 - Maplewood State Park ¹	11/7-11/10	100*	31	26	32	15	104
917 - Rydell NWR	11/7-11/15	10	0	0	0	0	0
918 - Lake Alexander SNA ¹	11/7-11/15	40*	2	2	6	1	11
919 - Buffalo River State Park ¹	11/7-11/8	16#	0	0	0	0	0
920 - Glacial Lakes State Park	11/12-11/15	30#	0	3	8	0	11
921 - Lake Louise State Park ¹	11/14-11/15	25**	3	5	5	6	19
922 - Beaver Creek Valley State Park ¹	11/7-11/8	20**	4	1	9	4	18
923 - Zumbro Falls SNA ¹	11/7-11/15	12#	0	3	3	1	7
924 - Forestville/Mystery Cave SP ¹	11/7-11/9	110**	0	0	0	0	0
925 - Frontenac State Park ¹	11/21-11/22	50**	9	8	20	4	41
926 - Great River Bluffs SP ¹	11/21-11/22	50**	2	1	4	2	9
927 - Whitewater State Park ¹	11/21-11/23	50**	7	6	27	12	52
928 - Zumbro Falls SNA ¹	11/21-11/29	12#	0	1	1	0	2
929 - Whitewater Refuge	11/21-11/29	60#	1	4	15	5	25
930 - Vermillion Highlands WMA ¹	11/7-11/20	50**	8	1	4	0	13
931 - Carver Park Reserve ¹	11/21-11/22	105*	13	9	21	6	49
932 -Lake Rebecca Park Reserve ¹	11/28-11/29	80*	5	2	5	3	15
TOTAL			201	155	349	135	840

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

Table 7. Free Landowner Firearms Harvest by Permit Area, 2009.

Permit Area	Fawn Male	Adult Female	Fawn Female	Total
101	1	2	0	3
105	0	5	1	6
110	3	2	4	9
111	2	2	1	5
156	3	5	2	10
157	5	29	2	36
159	1	4	2	7
167	2	1	0	3
168	2	6	0	8
170	0	7	1	8
172	3	4	1	8
178	2	3	4	9
180	0	3	2	5
181	1	6	0	7
184	8	38	10	56
197	0	1	2	3
199	0	0	1	1
201	0	1	0	1
203	0	1	0	1
208	0	1	1	2
209	2	7	2	11
210	6	14	4	24
214	35	49	17	101
215	17	21	6	44
221	11	19	6	36
222	2	4	2	8
225	4	11	4	19
227	2	1	1	4
236	0	7	1	8
240	14	34	15	63
241	9	26	4	39
242	0	2	0	2
243	9	15	3	27
248	1	7	0	8
256	3	10	1	14
257	3	11	2	16
260	0	9	0	9
261	1	1	0	2
263	0	1	3	4
264	4	22	2	28
265	1	10	1	12
266	4	8	2	14
267	0	4	1	5
268	4	3	2	9
292	2	6	1	9
293	0	2	1	3
298	3	8	3	14
338	1	1	1	3
339	0	2	0	2
341	5	17	6	28
342	6	16	8	30
343	2	15	1	18
345	6	24	0	30
346	8	19	3	30
347	0	9	3	12
348	5	15	4	24
349	13	40	7	60
TOTAL	216	591	151	958

Table 8. Archery Harvest by Permit Area, 2009.
Includes Regular, Youth, All-Season, and Bonus Permits.

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
101	3	2	8	1	14
104	7	1	10	0	18
105	12	7	50	3	72
107	17	1	21	0	39
110	12	8	24	4	48
111	5	3	10	1	19
114	6	0	6	0	12
115	21	3	18	1	43
116	5	0	6	0	11
122	6	1	6	2	15
126	15	4	21	2	42
127	0	0	1	0	1
152	4	3	10	2	19
154	78	5	47	12	142
156	57	20	122	22	221
157	136	34	164	20	354
159	55	21	108	13	197
167	5	2	16	1	24
168	26	9	64	8	107
170	103	32	204	23	362
172	45	21	110	14	190
174	24	7	23	7	61
175	22	1	28	2	53
178	74	20	111	8	213
180	69	11	63	5	148
181	99	22	104	9	234
182	237	151	563	106	1,057
183	44	3	33	8	88
184	112	38	176	25	351
197	22	5	36	4	67
199	10	2	6	0	18
201	0	0	1	0	1
203	1	0	1	1	3
208	3	2	9	3	17
209	22	8	39	6	75
210	27	18	78	4	127
213	214	15	67	12	308
214	60	21	108	19	208
215	135	35	157	25	352
218	135	12	62	8	217
219	90	12	48	9	159
221	72	56	185	34	347
222	63	48	174	31	316
223	120	17	50	6	193
224	16	1	4	1	22
225	117	76	259	29	481
227	193	85	294	65	637
229	70	7	25	3	105
230	32	2	18	1	53
232	35	3	17	0	55
233	49	5	33	3	90
234	28	0	0	0	28
235	8	2	7	4	21
236	198	64	317	55	634
237	25	1	2	1	29
238	5	2	4	0	11
239	60	8	50	5	123
240	83	28	166	17	294
241	81	54	304	33	472
242	80	28	149	31	288
243	45	28	195	28	296
244	53	15	50	2	120
245	74	14	47	5	140
246	49	6	42	5	102
247	57	8	40	3	108
248	35	10	57	8	110
249	58	13	37	5	113
250	52	3	22	0	77
251	2	1	2	0	5
252	40	3	33	5	81
253	57	4	21	3	85
254	76	9	43	4	132
255	80	7	45	6	138
256	13	4	28	4	49
257	15	3	36	6	60
260	21	2	60	2	85
261	11	3	30	2	46
262	18	2	14	3	37
263	6	0	9	2	17
264	17	5	11	5	38
265	16	9	47	8	80
266	19	7	31	4	61
267	3	2	16	4	25
268	8	2	12	1	23
269	22	2	8	1	33
270	20	0	9	2	31
271	22	0	8	0	30
272	13	1	6	0	20
273	36	2	17	0	55
274	18	4	22	3	47
275	21	0	3	0	24
276	24	2	11	0	37
277	155	10	107	17	289
278	58	6	26	1	91
279	15	3	8	2	28
280	25	1	15	2	43
281	45	6	30	2	83
282	10	2	0	0	12
283	35	0	0	0	35
284	48	1	1	0	50
285	80	9	55	4	148
286	25	0	0	0	25
287	2	0	2	0	4
288	64	0	0	0	64

Table 8. (Continued)

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
289	18	1	1	0	20
290	35	2	16	2	55
291	116	13	92	8	229
292	75	15	82	14	186
293	76	12	65	13	166
294	30	0	1	0	31
295	69	8	40	4	121
296	33	2	21	4	60
297	4	0	2	0	6
298	13	4	21	1	39
299	43	8	42	8	101
338	77	13	60	11	161

*Camp Ripley First Hunt

**Camp Ripley Second Hunt

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
339	56	12	64	11	143
341	171	27	192	38	428
342	117	21	108	18	264
343	268	97	554	84	1,003
344	72	12	19	5	108
345	69	17	82	14	182
346	149	41	233	41	464
347	86	16	101	11	214
348	101	33	178	29	341
349	179	37	293	39	548
601	701	263	1045	191	2,200
970	45	25	89	11	170
971	131	27	116	32	306
Total	7,650	1,962	9,570	1,447	20,629

Table 9. Archery Harvest using Bonus Permits by Permit Area, 2009.

Permit Area	Fawn Male	Adult Female	Fawn Female	Total
101	0	2	0	2
105	3	43	2	48
110	6	20	4	30
111	2	9	1	12
114	0	6	0	6
126	2	14	2	18
152	2	8	2	12
156	11	87	15	113
157	19	121	15	155
159	13	85	10	108
167	2	10	1	13
168	4	44	5	53
170	22	134	17	173
172	15	77	10	102
178	16	63	5	84
180	7	44	4	55
181	13	78	7	98
182	135	503	101	739
184	30	136	16	182
197	4	29	3	36
199	0	3	0	3
201	0	1	0	1
203	0	1	1	2
208	2	6	3	11
209	5	30	5	40
210	13	68	4	85
214	19	89	13	121
215	19	116	13	148
221	50	162	32	244
222	41	137	28	206
225	64	225	27	316
227	71	247	59	377
236	52	280	49	381
240	23	132	11	166
241	47	280	31	358
242	23	122	23	168
243	26	170	23	219
248	9	40	4	53
251	1	2	0	3
256	4	24	4	32
257	3	32	6	41
260	1	50	2	53
261	3	25	2	30
263	0	9	1	10
264	5	11	3	19
265	8	44	8	60
266	6	26	3	35
267	2	15	4	21
268	2	8	1	11
287	0	2	0	2
292	13	64	9	86
293	11	52	12	75
298	3	17	1	21
338	10	43	8	61
339	8	52	9	69
341	18	168	32	218
342	14	93	13	120
343	80	505	78	663
345	13	62	9	84
346	37	211	39	287
347	11	85	9	105
348	31	164	28	223
349	29	271	39	339
601	227	944	175	1,346
TOTAL	1,310	6,601	1,041	8,952

Table 10. Summary of Archery Special Hunts, 2009 Includes Regular, Youth, and Bonus Permits.

Area	Dates	Permits Issued	Adult Male	Adult Female	Fawn Male	Fawn Female	Total
970 - Camp Ripley	10/15-10/16	2,500	45	89	25	11	170
971 - Camp Ripley	10/30-10/31	2,500	131	116	27	32	306
972 - Crow-Hassan Park Reserve	11/13-11/15	130	0	0	0	0	0
973 - Murphy-Hanrahan Park Reserve	11/13-11/15	180	0	0	0	0	0
974 - Cleary Lake Regional Park	11/13-11/15	55	0	0	0	0	0
975 - Vermillion Highlands WMA	9/19-11/1	60	1	0	0	0	1
976 - City of New Ulm	10/10-12/31	50	0	1	0	0	1
977 - City of Red Wing	9/19-12/31	Unl.	0	2	0	1	3
978 - City of Sandstone	9/19-12/31	Unl.	0	0	0	0	0
979 - City of St. Cloud	9/19-12/31	50	0	0	0	0	0
980 - City of Taylors Falls	9/19-12/31	Unl.	0	0	0	0	0
981 - City of Mankato	10/24-12/31	40	0	0	0	0	0
982 - City of Granite Falls	9/19-12/31	10	0	0	0	0	0
983 - City of Ortonville	9/19-12/31	30	0	0	0	0	0
984 - City of Canby	9/19-12/31	20	0	2	1	0	3
985 - City of Bemidji	9/19-11/15	40	3	6	0	0	9
Total			180	216	53	44	493

*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, 2009.

Permit Area	Fawn Male	Adult Female	Fawn Female	Total
110	0	1	0	1
156	1	1	0	2
178	0	1	0	1
184	0	1	0	1
214	0	2	0	2
215	1	0	1	2
221	1	0	1	2
227	0	1	0	1
240	0	1	0	1
248	0	1	0	1
298	0	1	0	1
342	1	2	0	3
343	3	10	0	13
346	0	1	0	1
347	1	0	0	1
348	0	2	0	2
349	1	3	0	4
TOTAL	8	29	2	39

Table 12. Muzzleloader Harvest by Permit Area, 2009.
Includes Regular, Muzzleloader, Youth, All-Season, and Bonus permits.

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
101	6	0	3	3	12
104	8	2	1	1	12
105	10	5	23	4	42
107	12	1	1	1	15
110	4	1	15	1	21
111	2	5	12	2	21
115	24	3	21	2	50
116	8	0	1	0	9
122	0	2	3	0	5
126	9	2	23	0	34
127	2	0	1	0	3
152	2	0	4	2	8
154	8	3	5	2	18
156	22	11	48	2	83
157	13	9	70	11	103
159	13	9	36	5	63
167	6	1	17	0	24
168	17	4	52	9	82
170	28	13	83	19	143
172	11	10	47	7	75
174	10	1	8	0	19
175	20	0	5	1	26
178	25	16	68	7	116
180	18	1	29	3	51
181	20	6	41	7	74
182	11	2	30	4	47
183	9	0	9	2	20
184	52	18	69	18	157
197	9	4	16	9	38
199	1	0	5	0	6
201	1	0	1	0	2
203	1	0	0	0	1
208	6	6	15	5	32
209	13	9	29	9	60
210	31	8	43	6	88
213	60	11	32	9	112
214	25	16	52	16	109
215	44	30	95	27	196
218	39	8	18	5	70
219	40	7	20	6	73
221	23	27	87	17	154
222	31	19	68	10	128
223	25	7	5	4	41
224	1	0	0	0	1
225	33	25	93	20	171

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
227	35	22	93	21	171
229	15	3	12	3	33
230	15	2	10	3	30
232	17	3	14	1	35
233	22	2	15	2	41
234	26	0	1	0	27
235	2	0	1	0	3
236	27	17	67	14	125
237	55	1	1	0	57
238	6	0	3	0	9
239	33	6	20	5	64
240	38	20	88	24	170
241	32	33	107	32	204
242	12	16	44	10	82
243	12	16	82	13	123
244	36	2	13	2	53
245	31	6	31	6	74
246	23	3	17	6	49
247	12	5	7	1	25
248	8	7	25	6	46
249	13	11	12	4	40
250	39	1	12	0	52
251	1	1	2	3	7
252	36	1	9	2	48
253	30	1	13	1	45
254	36	3	33	8	80
255	52	8	12	1	73
256	19	7	30	4	60
257	12	3	32	8	55
260	46	14	55	10	125
261	17	1	29	2	49
262	11	3	6	0	20
263	12	1	7	2	22
264	26	7	28	5	66
265	19	11	52	11	93
266	25	9	48	14	96
267	9	0	10	2	21
268	8	1	8	2	19
269	38	0	3	0	41
270	11	1	3	0	15
271	17	0	0	0	17
272	16	1	4	0	21
273	23	2	6	0	31
274	13	0	0	0	13
275	21	0	0	0	21

Table 12. (Continued).

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
276	25	1	6	1	33
277	70	6	29	5	110
278	49	3	11	2	65
279	20	3	6	0	29
280	20	1	4	0	25
281	31	0	18	3	52
282	15	0	0	0	15
283	23	0	0	0	23
284	28	0	1	0	29
285	21	2	10	0	33
286	35	0	0	0	35
288	63	0	1	0	64
289	21	0	0	1	22
290	24	1	10	0	35
291	47	3	23	3	76
292	24	14	63	11	112
293	38	22	72	14	146

Permit Area	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
294	55	1	1	1	58
295	67	2	5	0	74
296	27	3	4	0	34
297	4	1	2	0	7
298	12	5	30	12	59
299	18	5	9	1	33
338	11	5	32	5	53
339	19	3	19	4	45
341	37	26	81	8	152
342	21	17	62	20	120
343	56	33	159	40	288
344	17	3	17	5	42
345	30	9	36	8	83
346	37	22	95	22	176
347	20	11	49	5	85
348	33	27	118	21	199
349	51	29	165	19	264
601	15	17	47	8	87
Total	2,844	828	3,554	703	7,929

Table 13. Muzzleloader Harvest using Bonus Permits by Permit Area, 2009.

Permit Area	Fawn Male	Adult Female	Fawn Female	Total
101	0	1	2	3
105	5	16	4	25
110	1	6	1	8
111	4	8	1	13
126	2	11	0	13
152	0	3	1	4
156	8	19	2	29
157	3	33	5	41
159	6	14	3	23
167	1	8	0	9
168	2	19	3	24
170	4	38	9	51
172	5	26	4	35
178	7	27	3	37
180	0	15	1	16
181	3	20	4	27
182	1	18	2	21
184	9	44	8	61
197	2	5	3	10
199	0	3	0	3
208	4	14	4	22
209	5	16	6	27
210	6	31	5	42
214	10	26	9	45
215	19	49	18	86
221	15	55	12	82
222	5	38	6	49
225	16	57	10	83
227	12	54	13	79
236	6	38	10	54
240	8	54	16	78
241	22	83	21	126
242	12	19	5	36
243	13	55	10	78
248	2	15	3	20
251	1	1	1	3
256	6	21	3	30
257	2	25	5	32
260	9	43	8	60
261	0	22	2	24
263	0	3	2	5
264	4	12	1	17
265	9	37	8	54
266	5	32	10	47
267	0	5	1	6
268	0	3	1	4
292	13	31	5	49
293	13	45	7	65
298	3	13	7	23
338	4	21	0	25
339	2	9	2	13
341	12	46	2	60
342	12	32	11	55
343	23	113	33	169
345	4	24	3	31
346	14	79	16	109
347	7	34	4	45
348	23	97	16	136
349	22	123	16	161
601	14	27	6	47
Total	420	1,836	374	2,630

Table 14. Summary of Muzzleloader Special Hunts, 2009.
Includes Regular, Youth, All-Season, and Bonus Permits.

Area	Dates	Permits Issued	Adult Male	Fawn Male	Adult Female	Fawn Female	Total
935 - Jay Cooke SP ¹	12/5-12/9	120*	8	5	13	12	38
936 - Crow Wing SP ¹	12/4-12/6	45*	4	7	10	3	24
937 - Soudan SP ¹	11/28-12/13	20*	2	1	4	0	7
938 - City of Tower ¹	11/28-12/13	30*	3	1	8	0	12
939 - Lake Shetek SP ¹	12/5-12/6	15**	0	4	7	1	12
940 - Lake Maria SP ¹	12/5-12/7	25***	1	0	4	1	6
941 - Nerstrand Big Woods SP ¹	11/28-11/29	50*	9	4	8	4	25
942 - Myre-Big Island SP	11/28-11/30	40**	0	6	14	2	22
943 - Sibley SP	12/5-12/6	50**	1	4	8	4	17
944 - Vermilion Highlands WMA ¹	11/28-12/13	25*	1	1	2	0	4
TOTAL			29	33	78	27	167

Bonus permits available *Either Sex **Antlerless Only ***Earn-A-Buck

Table 15. Free Landowner Muzzleloader Harvest by Permit Area, 2009.

Permit Area	Fawn Male	Adult Female	Fawn Female	Total
110	0	1	0	1
157	0	1	0	1
170	0	1	0	1
181	0	1	0	1
184	0	1	0	1
214	1	0	0	1
215	0	0	1	1
221	1	1	0	2
222	1	1	0	2
225	0	1	1	2
240	1	3	0	4
241	0	2	0	2
256	0	1	0	1
260	1	0	0	1
264	1	0	0	1
265	0	1	0	1
266	1	0	0	1
268	0	1	1	2
292	0	0	1	1
293	1	0	0	1
338	0	1	0	1
341	0	4	0	4
343	0	1	0	1
346	1	1	0	2
347	0	1	0	1
349	1	1	0	2
Total	10	25	4	39

Table 16. Summary of Youth Firearm Hunts and NW Youth Season, 2009.

Area	Dates	Permits Issued	Harvest				Total
			Adult Male	Adult Female	Fawn Male	Fawn Female	
950 - Camp Ripley Archery	10/09-10/11	150	1	7	2	2	12
951 - Arden Hills A	10/09-10/11	30	Incomplete Data				2
952 - Arden Hills B	10/15-10/16	30	Incomplete Data				6
953 - Whiewater Game Refuge	10/15-10/18	75	Incomplete Data				3
954 - Lake Bemidji SP	10/17-10/18	25	Incomplete Data				3
955 - Lake Alexander SNA	10/9-10/11	20	0	1	0	0	1
956 - St. Croix SP	10/24-10/25	75	4	4	2	4	14
957 - Rydell NWR	10/17-10/18	20	Incomplete Data				6
958 - Savanna Portage SP	10/24-10/25	20	Incomplete Data				10
959 - Buffalo River SP	10/24-10/25	10	Incomplete Data				2
960 - Tettegouche SP	10/17-10/18	10	0	0	0	0	0
961 - Itasca SP	10/17-10/18	50	Incomplete Data				8
962 - Greenleaf State Rec. Area	10/15-10/18	3	0	0	0	0	0

Northwest Youth Season - October 17 - 18, unlimited permits

Permit Area	Adult Female	Fawn Male	Fawn Female	Total
101	11	1	1	13
105	8	3	2	13
168	0	0	1	1
201	2	0	0	2
203	1	0	0	1
208	6	2	5	13
209	1	1	0	2
244	0	0	0	0
257	4	1	1	6
260	6	2	3	11
263	4	1	0	5
264	5	2	1	8
267	5	0	1	6
268	4	1	0	5
Total	57	14	15	86

Table 17. Total Deer Harvest by Permit Area, 2009.
Includes all license types, permits, and special hunts.

Permit Area	Adult Male	Adult Female	Fawn Male	Fawn Female	Total
101	356	309	90	84	839
104	944	275	69	29	1,317
105	808	804	216	179	2,007
107	1434	229	47	25	1,735
110	663	508	148	120	1,439
111	608	507	133	108	1,356
114	54	35	5	1	95
115	1635	447	87	47	2,216
116	132	36	2	0	170
122	553	146	29	26	754
126	495	283	47	36	861
127	106	23	0	2	131
152	160	142	40	33	375
154	1701	719	220	131	2,771
156	1938	1470	505	331	4,244
157	2466	1887	683	451	5,487
159	1366	1112	316	236	3,030
167	585	531	125	94	1,335
168	1142	1050	284	220	2,696
170	2416	2074	654	487	5,631
172	1203	1497	438	322	3,460
174	1245	500	149	72	1,966
175	1734	511	97	68	2,410
178	2575	1678	476	317	5,046
180	1539	760	171	130	2,600
181	1807	1156	335	227	3,525
182	788	1023	299	229	2,339
183	1409	529	154	102	2,194
184	2857	2430	772	602	6,661
197	882	656	179	141	1,858
199	145	70	15	9	239
201	91	51	18	22	182
203	99	56	16	14	185
208	242	224	61	59	586
209	609	635	174	174	1,592
210	1054	1048	319	288	2,709
213	1792	811	273	208	3,084
214	1427	1168	498	374	3,467
215	1131	954	430	316	2,831
218	957	492	173	127	1,749
219	656	319	116	81	1,172
221	1055	973	430	329	2,787
222	980	848	343	226	2,397
223	624	235	101	59	1,019
224	104	58	15	14	191
225	1483	1363	569	372	3,787
227	1063	994	366	256	2,679
229	309	119	53	24	505
230	265	118	32	29	444

Permit Area	Adult Male	Adult Female	Fawn Male	Fawn Female	Total
232	271	111	23	10	415
233	243	103	21	16	383
234	196	6	2	0	204
235	53	19	6	6	84
236	939	871	260	163	2,233
237	243	14	4	3	264
238	76	18	3	1	98
239	1382	794	278	202	2,656
240	1888	1541	554	420	4,403
241	1466	1721	624	525	4,336
242	607	668	169	154	1,598
243	927	1145	389	336	2,797
244	1543	702	274	171	2,690
245	1517	837	264	168	2,786
246	1754	1052	303	215	3,324
247	689	395	116	73	1,273
248	406	320	97	94	917
249	1149	628	261	155	2,193
250	411	72	8	3	494
251	63	74	31	31	199
252	346	90	16	10	462
253	443	122	25	14	604
254	547	212	53	34	846
255	464	158	50	22	694
256	462	541	136	128	1,267
257	392	492	131	137	1,152
260	610	738	139	129	1,616
261	172	210	37	28	447
262	179	62	17	17	275
263	419	270	62	61	812
264	714	510	156	123	1,503
265	503	606	207	165	1,481
266	447	380	97	97	1,021
267	207	203	42	64	516
268	280	264	73	56	673
269	262	61	18	13	354
270	179	33	6	13	231
271	212	39	10	4	265
272	208	28	11	6	253
273	384	162	45	35	626
274	166	28	4	3	201
275	282	5	1	0	288
276	443	105	30	13	591
277	1347	461	117	75	2,000
278	512	124	38	28	702
279	222	70	15	5	312
280	219	60	11	13	303
281	501	144	22	20	687
282	122	5	2	0	129

Table 17. (Continued).

Permit Area	Adult Male	Adult Female	Fawn Male	Fawn Female	Total
283	258	4	6	1	269
284	339	14	4	3	360
285	451	186	39	23	699
286	291	11	2	1	305
287	85	139	41	37	302
288	500	18	4	4	526
289	189	9	1	3	202
290	352	112	19	8	491
291	737	270	73	34	1,114
292	494	354	119	75	1,042
293	507	382	122	80	1,091
294	296	12	2	2	312
295	532	103	28	9	672
296	317	78	20	12	427
297	197	39	9	6	251
298	701	568	171	147	1,587
299	314	141	30	23	508
338	382	302	84	69	837
339	344	299	93	65	801
341	1122	946	321	243	2,632
342	880	778	225	191	2,074
343	1125	1417	360	274	3,176
344	616	266	93	60	1,035
345	628	546	181	115	1,470
346	1169	1308	381	304	3,162
347	653	504	145	96	1,398
348	822	938	226	213	2,199
349	1544	1901	404	410	4,259
601	1346	1553	419	292	3,610
901	3	3	1	0	7
902	50	95	35	35	215
903	1	7	0	1	9
904	7	2	1	0	10
905	3	3	1	1	8
906	8	9	2	4	23
907	0	4	0	1	5
908	2	2	0	0	4
909	0	0	3	1	4
910	0	6	6	1	13
912	25	41	25	23	114
913	1	6	2	1	10
914	13	3	5	2	23
915	3	8	2	6	19

Permit Area	Adult Male	Adult Female	Fawn Male	Fawn Female	Total
916	31	32	26	15	104
918	2	6	2	1	11
920	0	8	3	0	11
921	3	5	5	6	19
922	4	9	1	4	18
923	0	3	3	1	7
925	9	20	8	4	41
926	2	4	1	2	9
927	7	27	6	12	52
928	0	1	1	0	2
929	1	15	4	5	25
928	0	6	1	1	8
930	8	4	1	0	13
931	13	21	9	6	49
932	5	5	2	3	15
935	8	13	5	12	38
936	4	10	7	3	24
937	2	4	1	0	7
938	3	8	1	0	12
939	0	7	4	1	12
940	1	4	0	1	6
941	9	8	4	4	25
942	0	14	6	2	22
943	1	8	4	4	17
944	1	2	1	0	4
950	2	7	2	1	12
953	1	4	2	0	7
954	1	1	1	0	3
955	0	1	0	0	1
956	5	4	1	3	13
958	3	2	3	2	10
959	0	2	1	2	5
961	0	3	1	1	5
970	45	89	25	11	170
971	131	116	27	32	306
975	1	0	0	0	1
976	0	1	0	0	1
977	0	2	0	1	3
984	0	2	1	0	3
985	3	6	0	0	9
TOTAL	94,367	65,008	19,905	14,906	194,186

Table 18. Estimated firearm hunter numbers, density, and harvest by Permit Area, 2009.

Permit Area	Firearm Hunters	Area Size (sq mi)	Hunters/mile ²	Harvest/mile ²
101	1,628	496	3.3	1.5
104	4,360	2,078	2.1	0.6
105	3,786	740	5.1	2.3
107	6,787	1,896	3.6	0.9
110	2,617	300	8.7	4.6
111	3,120	1,437	2.2	0.8
114	170	123	1.4	0.7
115	8,146	1,867	4.4	1.1
116	781	1,164	0.7	0.1
122	2,186	619	3.5	1.2
126	1,977	943	2.1	0.8
127	538	561	1.0	0.2
152	1,204	61	19.7	5.7
154	8,779	760	11.6	3.4
156	9,074	825	11.0	4.8
157	12,396	889	13.9	5.7
159	6,955	568	12.2	4.9
167	3,551	432	8.2	3.0
168	7,509	723	10.4	3.5
170	12,977	1,311	9.9	3.9
172	9,072	451	20.1	7.1
174	6,205	835	7.4	2.3
175	8,137	1,249	6.5	1.9
178	10,007	1,259	7.9	3.7
180	5,913	983	6.0	2.4
181	6,572	709	9.3	4.5
182	2,236	269	8.3	4.1
183	7,197	663	10.9	3.1
184	13,449	1,231	10.9	5.0
197	5,097	975	5.2	1.8
199	562	148	3.8	1.5
201	374	161	2.3	1.1
203	319	118	2.7	1.5
208	1,198	379	3.2	1.3
209	2,452	639	3.8	1.9
210	4,321	615	7.0	3.6
213	8,909	1,057	8.4	2.5
214	6,568	557	11.8	5.7
215	6,222	701	8.9	3.3
218	4,887	884	5.5	1.7
219	2,967	392	7.6	2.4
221	4,776	642	7.4	3.6
222	4,464	413	10.8	4.7

Permit Area	Firearm Hunters	Area Size (sq mi)	Hunters/mile ²	Harvest/mile ²
223	2,777	377	7.4	2.1
224	659	47	14.1	3.6
225	6,646	618	10.7	4.5
227	4,402	471	9.3	3.7
229	1,497	287	5.2	1.3
230	1,356	452	3.0	0.8
232	1,174	377	3.1	0.9
233	990	385	2.6	0.7
234	602	636	0.9	0.2
233	990	385	2.6	0.7
234	602	636	0.9	0.2
235	342	32	10.7	1.9
236	3,228	372	8.7	3.7
237	681	728	0.9	0.2
238	252	95	2.7	0.8
239	7,606	922	8.2	2.7
240	7,300	642	11.4	6.1
241	5,319	417	12.8	8.8
242	2,715	215	12.6	5.7
243	4,578	314	14.6	7.6
244	7,417	583	12.7	4.3
245	8,784	583	15.1	4.4
246	9,514	772	12.3	4.1
247	3,511	229	15.3	5.0
248	1,895	212	8.9	3.6
249	5,740	502	11.4	4.1
250	1,378	711	1.9	0.5
251	557	55	10.1	3.4
252	1,156	715	1.6	0.5
253	1,880	974	1.9	0.5
254	2,403	930	2.6	0.7
255	1,622	774	2.1	0.6
256	2,361	653	3.6	1.6
257	1,881	412	4.6	2.2
260	2,460	1,249	2.0	1.0
261	877	795	1.1	0.4
262	902	677	1.3	0.3
263	1,627	512	3.2	1.5
264	3,212	669	4.8	2.1
265	2,083	494	4.2	2.3
266	2,020	617	3.3	1.4
267	1,071	472	2.3	0.9
268	1,144	229	5.0	2.5

Table 18. (Continued).

Permit Area	Firearm Hunters	Area Size (sq mi)	Hunters/ mile ²	Harvest/ mile ²
269	1,230	650	1.9	0.4
270	869	748	1.2	0.2
271	847	632	1.3	0.3
272	882	531	1.7	0.4
273	2,489	572	4.4	0.9
274	678	355	1.9	0.4
275	1,365	764	1.8	0.3
276	2,761	543	5.1	1.0
277	5,643	813	6.9	2.0
278	2,032	401	5.1	1.3
279	1,091	344	3.2	0.7
280	1,266	675	1.9	0.3
281	2,246	575	3.9	1.0
282	618	779	0.8	0.1
283	974	614	1.6	0.3
284	1,166	838	1.4	0.3
285	2,222	550	4.0	0.9
286	942	446	2.1	0.5
287	660	46	14.4	6.5
288	1,538	625	2.5	0.6
289	657	816	0.8	0.2
290	2,240	662	3.4	0.6
291	3,536	802	4.4	1.0
292	2,682	480	5.6	1.5
293	2,420	511	4.7	1.5
294	778	686	1.1	0.3
295	2,042	840	2.4	0.6
296	1,493	666	2.2	0.5
297	975	438	2.2	0.5
298	3,794	618	6.1	2.4
299	1,376	386	3.6	1.0
338	1,914	454	4.2	1.4
339	1,787	394	4.5	1.6
341	4,959	611	8.1	3.4
342	3,707	350	10.6	4.8
343	4,456	662	6.7	2.8
344	2,833	189	15.0	4.7
345	2,829	326	8.7	3.7
346	4,248	319	13.3	7.1
347	3,047	434	7.0	2.5
348	3,986	332	12.0	5.0
349	6,512	492	13.2	6.4
601	2,633	1,633	1.6	0.8
Total	434,487	78,929	5.5	2.0

Table 19. Deer harvest per square mile by season, 2009.

Permit Area	Area Size (sq mi)	Archery Harvest/mi ²	Firearm Harvest/mi ²	Muzz. Harvest/mi ²	EA Harvest/mi ²	Total Harvest/mi ²
101	496	0.03	1.5	0.02	0.07	1.6
104	2,078	0.01	0.6	0.01		0.6
105	740	0.10	2.3	0.06	0.27	2.7
107	1,896	0.02	0.9	0.01		0.9
110	300	0.16	4.6	0.07		4.8
111	1,437	0.01	0.8	0.01	0.08	0.9
114	123	0.10	0.7	0.00		0.8
115	1,867	0.02	1.1	0.03		1.2
116	1,164	0.01	0.1	0.01		0.1
122	619	0.02	1.2	0.01		1.2
126	943	0.04	0.8	0.04		0.9
127	561	0.00	0.2	0.01		0.2
152	61	0.31	5.7	0.13		6.1
154	760	0.19	3.4	0.02		3.6
156	825	0.27	4.8	0.10		5.1
157	889	0.40	5.7	0.12		6.2
159	568	0.35	4.9	0.11		5.3
167	432	0.06	3.0	0.06		3.1
168	723	0.15	3.5	0.11		3.7
170	1,311	0.28	3.9	0.11		4.3
172	451	0.42	7.1	0.17		7.7
174	835	0.07	2.3	0.02		2.4
175	1,249	0.04	1.9	0.02		1.9
178	1,259	0.17	3.7	0.09		4.0
180	983	0.15	2.4	0.05		2.6
181	709	0.33	4.5	0.10		5.0
182	269	3.93	4.1	0.17	0.47	8.7
183	663	0.13	3.1	0.03		3.3
184	1,231	0.28	5.0	0.13		5.4
197	975	0.07	1.8	0.04		1.9
199	148	0.12	1.5	0.04		1.6
201	161	0.01	1.1	0.01		1.1
203	118	0.03	1.5	0.01		1.6
208	379	0.04	1.3	0.08	0.11	1.5
209	639	0.12	1.9	0.09	0.33	2.5
210	615	0.21	3.6	0.14	0.49	4.4
213	1,057	0.29	2.5	0.11		2.9
214	557	0.37	5.7	0.20		6.2
215	701	0.50	3.3	0.28		4.0
218	884	0.25	1.7	0.08		2.0
219	392	0.41	2.4	0.19		3.0
221	642	0.54	3.6	0.24		4.3
222	413	0.77	4.7	0.31		5.8
223	377	0.51	2.1	0.11		2.7
224	47	0.47	3.6	0.02		4.1

Table 19. (Continued).

Permit Area	Area Size (sq mi)	Archery Harvest/mi ²	Firearm Harvest/mi ²	Muzz. Harvest/mi ²	EA Harvest/mi ²	Total Harvest/mi ²
225	618	0.78	4.5	0.28	0.54	6.1
227	471	1.35	3.7	0.36	0.26	5.7
229	287	0.37	1.3	0.11		1.8
230	452	0.12	0.8	0.07		1.0
232	377	0.15	0.9	0.09		1.1
233	385	0.23	0.7	0.11		1.0
234	636	0.04	0.2	0.04		0.3
235	32	0.65	1.9	0.09		2.6
236	372	1.70	3.7	0.34	0.28	6.0
237	728	0.04	0.2	0.08		0.4
238	95	0.12	0.8	0.09		1.0
239	922	0.13	2.7	0.07		2.9
240	642	0.46	6.1	0.26		6.9
241	417	1.13	8.8	0.49		10.4
242	215	1.34	5.7	0.38		7.4
243	314	0.94	7.6	0.39		8.9
244	583	0.21	4.3	0.09		4.6
245	583	0.24	4.4	0.13		4.8
246	772	0.13	4.1	0.06		4.3
247	229	0.47	5.0	0.11		5.6
248	212	0.52	3.6	0.22		4.3
249	502	0.23	4.1	0.08		4.4
250	711	0.11	0.5	0.07		0.7
251	55	0.09	3.4	0.13		3.6
252	715	0.11	0.5	0.07		0.6
253	974	0.09	0.5	0.05		0.6
254	930	0.14	0.7	0.09		0.9
255	774	0.18	0.6	0.09		0.9
256	653	0.08	1.6	0.09	0.19	1.9
257	412	0.15	2.2	0.13	0.32	2.8
260	1,249	0.07	1.0	0.10	0.13	1.3
261	795	0.06	0.4	0.06	0.04	0.6
262	677	0.05	0.3	0.03		0.4
263	512	0.03	1.5	0.04		1.6
264	669	0.06	2.1	0.10		2.2
265	494	0.16	2.3	0.19	0.36	3.0
266	617	0.10	1.4	0.16		1.7
267	472	0.05	0.9	0.04	0.07	1.1
268	229	0.10	2.5	0.08	0.20	2.9
269	650	0.05	0.4	0.06		0.5
270	748	0.04	0.2	0.02		0.3
271	632	0.05	0.3	0.03		0.4
272	531	0.04	0.4	0.04		0.5
273	572	0.10	0.9	0.05		1.1
274	355	0.13	0.4	0.04		0.6

Table 19. (Continued).

Permit Area	Area Size (sq mi)	Archery Harvest/mi ²	Firearm Harvest/mi ²	Muzz. Harvest/mi ²	EA Harvest/mi ²	Total Harvest/mi ²
275	764	0.03	0.3	0.03		0.4
276	543	0.07	1.0	0.06		1.1
277	813	0.36	2.0	0.14		2.5
278	401	0.23	1.3	0.16		1.7
279	344	0.08	0.7	0.08		0.9
280	675	0.06	0.3	0.04		0.4
281	575	0.14	1.0	0.09		1.2
282	779	0.02	0.1	0.02		0.2
283	614	0.06	0.3	0.04		0.4
284	838	0.06	0.3	0.03		0.4
285	550	0.27	0.9	0.06		1.3
286	446	0.06	0.5	0.08		0.7
287	46	0.09	6.5	0.00		6.6
288	625	0.10	0.6	0.10		0.8
289	816	0.02	0.2	0.03		0.2
290	662	0.08	0.6	0.05		0.7
291	802	0.29	1.0	0.09		1.4
292	480	0.39	1.5	0.23		2.2
293	511	0.32	1.5	0.29		2.1
294	686	0.05	0.3	0.08		0.5
295	840	0.14	0.6	0.09		0.8
296	666	0.09	0.5	0.05		0.6
297	438	0.01	0.5	0.02		0.6
298	618	0.06	2.4	0.10		2.6
299	386	0.26	1.0	0.09		1.3
338	454	0.35	1.4	0.12		1.8
339	394	0.36	1.6	0.11		2.0
341	611	0.70	3.4	0.25		4.3
342	350	0.75	4.8	0.34		5.9
343	662	1.51	2.8	0.43		4.8
344	189	0.57	4.7	0.22		5.5
345	326	0.56	3.7	0.25		4.5
346	319	1.46	7.1	0.55	0.82	9.9
347	434	0.49	2.5	0.20		3.2
348	332	1.03	5.0	0.60		6.6
349	492	1.11	6.4	0.54	0.57	8.7
601	1,633	1.35	0.8	0.05	0.03	2.2
Total	78,929	0.26	2.0	0.10	0.04	2.4

Table 20. 2009 Antlerless Lottery Distribution Report.

Permit Area Number	Preference Level	Applications		Unsuccessful	Winners	Permits Available	% Under-Subscribed
		Total	Rejected				
104	1	2,052	118	692	1,360	1,500	0.0%
	2	121	0	0	121		
	3	17	0	0	17		
	4	2	0	0	2		
		2,192	118	692	1,500		
107	1	3,079	197	2,717	362	500	0.0%
	2	106	1	0	106		
	3	29	0	0	29		
	4	3	0	0	3		
		3,217	198	2,717	500		
115	1	3,707	245	1,886	1,821	2,000	0.0%
	2	166	5	0	166		
	3	9	0	0	9		
	4	4	0	0	4		
		3,886	250	1,886	2,000		
116	1	268	9	192	76	100	0.0%
	2	23	0	0	23		
	3	0	0	0	0		
	4	1	0	0	1		
		292	9	192	100		
122	1	620	53	0	620	1,000	10.0%
	2	264	1	0	264		
	3	13	0	0	13		
	4	3	0	0	3		
	9	1	0	0	1		
		901	54	0	900		
127	1	139	9	6	133	150	0.0%
	2	15	0	0	15		
	3	2	0	0	2		
		156	9	6	150		
154	1	4,211	211	2,652	1,559	2,250	0.0%
	2	670	70	0	670		
	3	20	0	0	20		
	5	1	0	0	1		
		4,902	281	2,652	2,250		
174	1	2,781	227	1,019	1,762	2,000	0.0%
	2	211	3	0	211		
	3	21	1	0	21		
	4	6	0	0	6		
		3,019	231	1,019	2,000		
175	1	3,753	240	1,969	1,784	2,000	0.0%
	2	175	5	0	175		
	3	5	0	0	5		
	4	36	1	0	36		
		3,969	246	1,969	2,000		
183	1	3,082	237	783	2,299	2,500	0.0%
	2	173	0	0	173		
	3	26	0	0	26		
	4	2	1	0	2		
		3,283	238	783	2,500		

Table 20. (Continued).

Permit Area Number	Preference Level	Applications		Unsuccessful	Winners	Permits Available	% Under-Subscribed	
		Total	Rejected					
213	1	4,977	419	662	4,315	4,500	0.0%	
	2	159	7	0	159			
	3	26	0	0	26			
	4	1	0	0	1			
			5,163	426	662			4,500
218	1	2,590	142	428	2,162	2,500	0.0%	
	2	308	51	0	308			
	3	27	25	0	27			
	4	3	1	0	3			
			2,928	219	428			2,500
219	1	1,350	63	0	1,350	1,500	4.3%	
	2	86	26	0	86			
	3	13	11	0	13			
			1,449	100	0			1,436
223	1	1,176	97	0	1,176	1,500	17.6%	
	2	50	1	0	50			
	3	8	0	0	8			
	4	2	0	0	2			
			1,234	98	0			1,236
224	1	269	22	0	269	350	20.3%	
	2	8	1	0	8			
	3	2	0	0	2			
			277	23	0			279
229	1	546	71	0	546	1,200	50.8%	
	2	38	2	0	38			
	3	6	1	0	6			
			584	74	0			590
230	1	694	34	288	406	500	0.0%	
	2	87	14	0	87			
	3	5	5	0	5			
	4	2	1	0	2			
	5	1	2	0	0			
			789	56	288			500
232	1	565	26	0	565	700	15.9%	
	2	23	10	0	23			
	3	1	0	0	1			
			589	36	0			589
233	1	383	18	0	383	750	46.1%	
	2	19	3	0	19			
	3	2	0	0	2			
			404	21	0			404
234	1	59	60	21	38	50	0.0%	
	2	8	4	0	8			
	3	4	1	0	4			
			71	65	21			50
235	1	89	6	74	15	25	0.0%	
	2	10	0	0	10			
			99	6	74			25

Table 20. (Continued).

Permit Area Number	Preference Level	Applications		Unsuccessful	Winners	Permits Available	% Under-Subscribed
		Total	Rejected				
237	1	52	48	13	39	50	0.0%
	2	6	28	0	6		
	3	1	5	0	1		
	4	1	0	0	1		
	5	2	0	0	2		
	6	1	1	0	1		
		63	82	13	50		
238	1	71	9	71	0	25	0.0%
	2	45	2	22	23		
	3	2	0	0	2		
		118	11	93	25		
239	1	3,802	314	0	3,802	7,000	42.8%
	2	176	6	0	176		
	3	24	1	0	24		
	4	1	0	0	1		
		4,003	321	0	4,003		
244	1	3,942	322	1,088	2,854	3,000	0.0%
	2	128	1	0	128		
	3	14	0	0	14		
	4	4	0	0	4		
		4,088	323	1,088	3,000		
245	1	4,765	338	949	3,816	4,000	0.0%
	2	156	4	0	156		
	3	24	1	0	24		
	4	4	0	0	4		
		4,949	343	949	4,000		
246	1	4,437	322	1,629	2,808	4,000	0.0%
	2	1,179	1	0	1,179		
	3	10	0	0	10		
	4	3	0	0	3		
		5,629	323	1,629	4,000		
247	1	1,807	79	76	1,731	1,800	0.0%
	2	65	0	0	65		
	3	3	0	0	3		
	4	1	0	0	1		
		1,876	79	76	1,800		
249	1	2,996	142	0	2,996	3,500	9.0%
	2	181	55	0	181		
	3	5	0	0	5		
	4	4	0	0	4		
		3,186	197	0	3,186		
250	1	579	43	579	0	100	0.0%
	2	119	11	30	89		
	3	11	6	0	11		
		709	60	609	100		
252	1	289	36	289	0	100	0.0%
	2	234	7	197	37		
	3	62	5	0	62		
	4	1	4	0	1		
	5	0	1	0	0		
		586	53	486	100		

Table 20. (Continued).

Permit Area Number	Preference Level	Applications		Unsuccessful	Winners	Permits Available	% Under-Subscribed
		Total	Rejected				
253	1	520	59	511	9	300	-0.7%
	2	376	14	132	244		
	3	42	6	0	42		
	4	5	1	0	5		
	5	2	2	0	2		
		945	82	643	302		
254	1	1,016	49	0	1,016	1,200	11.5%
	2	44	18	0	44		
	3	2	0	0	2		
		1,062	67	0	1,062		
255	1	674	142	0	674	700	0.6%
	2	16	55	0	16		
	3	5	0	0	5		
	5	1	0	0	1		
		696	197	0	696		
262	1	251	16	219	32	150	0.0%
	2	115	6	0	115		
	3	3	2	0	3		
		369	24	219	150		
269	1	407	33	367	40	250	0.0%
	2	204	12	0	204		
	3	6	3	0	6		
		617	48	367	250		
270	1	133	49	133	0	25	0.0%
	2	116	18	112	4		
	3	22	0	1	21		
	4	0	1	0	0		
		271	68	246	25		
271	1	118	16	118	0	50	0.0%
	2	97	3	97	0		
	3	96	4	49	47		
	4	3	0	0	3		
		314	23	264	50		
272	1	161	20	161	0	50	0.0%
	2	125	4	125	0		
	3	95	2	48	47		
	4	3	0	0	3		
		384	26	334	50		
273	1	1,265	50	45	1,220	1,300	0.0%
	2	57	13	0	57		
	3	23	11	0	23		
		1,345	74	45	1,300		
274	1	52	23	43	9	25	0.0%
	2	12	19	0	12		
	3	3	16	0	3		
	4	1	6	0	1		
		68	64	43	25		
275	1	110	22	110	0	25	0.0%
	2	22	4	7	15		
	3	6	5	1	5		
	4	5	1	0	5		
	5	0	0	0	0		
		143	32	118	25		

Table 20. (Continued).

Permit Area Number	Preference Level	Applications		Unsuccessful	Winners	Permits Available	% Under-Subscribed
		Total	Rejected				
276	1	639	67	639	0	300	0.0%
	2	630	17	570	60		
	3	236	5	0	236		
	4	4	1	0	4		
		1,509	90	1,209	300		
277	1	1,425	144	1,425	0	950	0.0%
	2	1,272	33	774	498		
	3	440	23	0	440		
	4	11	8	0	11		
	5	1	1	0	1		
	6	0	1	0	0		
	3,149	210	2,199	950			
278	1	514	71	514	0	250	0.0%
	2	499	16	476	23		
	3	267	8	48	219		
	4	5	3	0	5		
	5	1	1	0	1		
	6	1	0	0	1		
	7	1	0	0	1		
	1,288	99	1,038	250			
279	1	251	42	251	0	150	0.0%
	2	267	40	227	40		
	3	108	6	0	108		
	4	2	4	0	2		
	5	0	1	0	0		
	628	93	478	150			
280	1	228	43	228	0	75	0.0%
	2	199	11	197	2		
	3	181	3	112	69		
	4	4	3	0	4		
	5	0	1	0	0		
	612	61	537	75			
281	1	359	79	359	0	300	0.0%
	2	305	18	279	26		
	3	370	13	118	252		
	4	16	2	0	16		
	5	4	1	0	4		
	6	2	0	0	2		
	1,056	113	756	300			
282	1	30	22	21	9	25	0.0%
	2	11	26	0	11		
	3	5	15	0	5		
	46	63	21	25			
283	1	87	35	75	12	25	0.0%
	2	7	24	0	7		
	3	3	41	0	3		
	4	1	2	0	1		
	5	2	0	0	2		
	100	102	75	25			
284	1	91	37	80	11	25	0.0%
	2	10	38	0	10		
	3	4	29	0	4		
	4	0	25	0	0		
	5	0	10	0	0		
	6	0	1	0	0		
	105	140	80	25			

Table 20. (Continued).

Permit Area Number	Preference Level	Applications		Unsuccessful	Winners	Permits Available	% Under-Subscribed
		Total	Rejected				
285	1	687	56	673	14	500	0.0%
	2	480	15	24	456		
	3	15	6	0	15		
	4	10	4	0	10		
	5	5	1	0	5		
		1,197	82	697	500		
286	1	80	44	45	35	50	0.0%
	2	9	27	0	9		
	3	5	1	0	5		
	4	0	0	0	0		
	5	1	0	0	1		
		95	72	45	50		
288	1	94	43	82	12	50	0.0%
	2	26	49	0	26		
	3	5	48	0	5		
	4	2	2	0	2		
	5	4	0	0	4		
	6	1	0	0	1		
		132	142	82	50		
289	1	61	31	46	15	25	0.0%
	2	7	31	0	7		
	3	2	15	0	2		
	4	0	8	0	0		
	5	1	1	0	1		
		71	86	46	25		
290	1	490	5	490	0	300	0.0%
	2	482	2	472	10		
	3	359	0	84	275		
	4	8	0	0	8		
	5	3	0	0	3		
	6	4	0	0	4		
		1,346	7	1,046	300		
291	1	1,012	89	1,012	0	650	0.0%
	2	832	25	428	404		
	3	224	11	0	224		
	4	16	6	0	16		
	5	4	0	0	4		
	6	2	2	0	2		
		2,090	133	1,440	650		
294	1	59	52	22	37	50	0.0%
	2	10	30	0	10		
	3	3	12	0	3		
		72	94	22	50		
295	1	476	66	476	0	100	0.0%
	2	468	14	466	2		
	3	107	10	13	94		
	4	3	3	0	3		
	5	2	3	0			
	6	1	0	0	1		
		1,057	96	955	100		

Table 20. (Continued).

Permit Area Number	Preference Level	Applications		Unsuccessful	Winners	Permits Available	% Under-Subscribed
		Total	Rejected				
296	1	301	55	301	0	100	0.0%
	2	308	18	308	0		
	3	171	2	84	87		
	4	7	2	0	7		
	5	3	0	0	3		
	6	2	2	0	2		
	7	1	0	0	1		
		793	79	693	100		
297	1	283	23	153	130	150	0.0%
	2	18	0	0	18		
	3	2	0	0	2		
		303	23	153	150		
299	1	360	32	359	1	250	0.0%
	2	345	6	148	197		
	3	48	0	0	48		
	4	3	1	0	3		
	5	0	1	0	0		
	6	1	0	0	1		
		757	40	507	250		
344A	1	278	15	77	201	300	0.0%
	2	94	4	0	94		
	3	3	1	0	3		
	4	1	1	0	1		
	5	1	1	0	1		
		377	22	77	300		
344A	1	289	23	289	0	200	0.0%
	2	191	9	60	131		
	3	68	0	0	68		
	4	0	1	0	0		
	5	1	1	0	1		
		549	34	349	200		
344B	1	375	27	0	375	750	8.9%
	2	292	7	0	292		
	3	14	9	0	14		
	4	1	1	0	1		
	5	1	0	0	1		
		683	44	0	683		
TOTAL		90,882	7,377	33,230	57,631	60,800	

Table 21. 2009 Special Permit Areas for Firearms Hunters.

Special Hunt	Preference Level	Applications		Unsuccessful	Winners	Permits Available	Bonus Permits
		Total	Rejected				
901 - Rice Lake Nat. Wildlife Refuge	1	79	0	55	24	40	No
	2	16	0	0	16		
		79	0	55	24		
902 - St. Croix State Park	1	669	1	277	392	550	Yes
	2	153	0	0	153		
	3	5	0	0	5		
		827	1	277	550		
903 - Savanna Portage State Park	1	53	0	33	20	40	Yes
	2	21	0	0	21		
	3	1	0	0	1		
		75	0	33	42		
904 - Gooseberry Falls State Park	1	39	0	0	39	40	Yes
		39	0	0	39		
905 - Split Rock Lighthouse State Park	1	21	0	0	21	30	Yes
		21	0	0	21		
906 - Tettegouche State Park	1	76	0	0	76	125	Yes
	2	3	0	0	3		
		79	0	0	79		
907 - Scenic State Park	1	27	0	0	27	30	Yes
	2	2	0	0	2		
		29	0	0	29		
908 - Hayes Lake State Park	1	9	0	0	9	30	Yes
		9	0	0	9		
909 - Lake Bemidji State Park	1	33	0	0	33	35	Yes
	2	2	0	0	2		
		35	0	0	35		
910 - Zippel Bay State Park	1	52	0	2	50	55	Yes
	2	5	0	0	5		
		57	0	2	55		
911 - Judge CR Magney SP						N/A	Yes
912 - Wild River State Park	1	259	0	208	51	150	Yes
	2	95	0	0	95		
	3	5	0	0	5		
		359	0	208	151		
913 - Lake Carlos State Park	1	24	0	9	15	20	Yes
	2	5	0	0	5		
		29	0	9	20		
914 - William O'Brien State Park	1	120	0	69	51	70	Yes
	2	19	0	0	19		
		139	0	69	70		
915 - Lake Bronson State Park	1	49	0	20	29	30	Yes
	2	2	0	0	2		
		51	0	20	31		
916 - Maplewood State Park	1	219	0	219	0	100	Yes
	2	150	0	150	0		
	3	113	0	22	91		
	4	9	0	0	9		
		491	0	391	100		
917 - Rydell NWR	1	5	0	0	5	10	Yes
		5	0	0	5		
918 - Lake Alexander SNA	1	56	0	20	36	40	Yes
	2	4	0	0	4		
		60	0	20	40		

Table 21. Continued.

Special Hunt	Preference Level	Applications		Unsuccessful	Winners	Permits Available	Bonus Permits
		Total	Rejected				
919 - Buffalo River State Park	1	14	0	1	13	16	Yes
	2	3	0	0	3		
		17	0	1	16		
920 - Glacial Lakes State Park	1	21	0	0	21	30	Yes
	2	5	0	0	5		
		26	0	0	26		
921 - Lake Louise State Park	1	35	0	35	0	25	Yes
	2	25	0	0	25		
		60	0	35	25		
922 - Beaver Creek Valley State Park	1	35	0	32	3	20	Yes
	2	18	0	0	18		
		53	0	32	21		
923 - Zumbro Falls SNA	1	10	0	0	10	12	Yes
		10	0	0	10		
924 - Forestville/Mystery Cave SP	1	134	0	55	79	110	Yes
	2	31	0	0	31		
		165	0	55	110		
925 - Frontenac State Park	1	55	0	41	14	50	Yes
	2	34	0	0	34		
	3	3	0	0	3		
		92	0	41	51		
926 - Great River Bluffs SP	1	18	0	0	18	100	Yes
	2	4	0	0	4		
		22	0	0	22		
927 - Whitewater State Park	1	84	0	84	0	50	Yes
	2	53	0	5	48		
	3	2	0	0	2		
		139	0	89	50		
928 - Zumbro Falls SNA	1	9	0	0	9	12	Yes
	2	2	0	0	2		
		11	0	0	11		
929 - Whitewater Refuge	1	40	0	0	40	60	No
	2	6	0	0	6		
		46	0	0	46		
930 - Vermillion Highlands WMA	1	60	0	44	16	25	Yes
	2	7	0	0	7		
	3	1	0	0	1		
	9	1	0	0	1		
	69	0	44	25			
931 - Carver Park Reserve	1	171	0	149	22	105	Yes
	2	70	0	0	70		
	3	2	0	0	2		
		243	0	149	94		
932 - Lake Rebecca Park Reserve	1	131	0	75	56	80	Yes
	2	21	0	0	21		
	3	2	0	0	2		
		154	0	75	79		
		3,491	1	1,605	1,886	2,090	

Table 22. 2009 Special Permit Areas for Muzzleloader Hunters.

Permit Area Number	Preference Level	Applications		Unsuccessful	Winners	Permits Available	Bonus Permits
		Total	Rejected				
935 - Jay Cooke SP	1	160	0	160	0	120	Yes (4)
	2	129	0	20	109		
	3	9	0	0	9		
	4	2	0	0	2		
			300	0	180		
936 - Crow Wing SP	1	83	0	83	0	45	Yes (4)
	2	55	0	49	6		
	3	39	0	0	39		
			177	0	132		
937 - Soudan Mine SP	1	9	0	0	9	20	Yes (1)
	2	2	0	0	2		
			11	0	0		
938 - City of Tower	1	9	0	0	9	40	No
	2	2	0	0	2		
			11	0	0		
939 - Lake Shetek SP	1	27	0	27	0	15	Yes (4)
	2	24	0	22	2		
	3	13	0	0	13		
			64	0	49		
940 - Lake Maria SP	1	86	0	86	0	25	Yes (4)
	2	24	0	2	22		
	3	4	0	0	4		
	4	1	0	0	1		
			115	0	88		
941 - Nerstrand Woods SP	1	102	0	102	0	50	Yes (1)
	2	72	0	50	22		
	3	28	0	0	28		
	4	1	0	0	1		
			203	0	152		
942 - Myre-Big Island SP	1	54	0	30	24	40	Yes (1)
	2	16	0	0	16		
	3	1	0	0	1		
			71	0	30		
943 - Sibley SP	1	53	0	53	0	50	Yes (1)
	2	47	0	0	47		
	3	2	0	0	2		
	4	1	0	0	1		
			103	0	53		
944 - Vermillion Highlands WMA	1	29	0	13	16	25	Yes (1)
	2	9	0	0	9		
	3	1	0	0	1		
			39	0	13		
TOTAL		1,094	0	697	397	430	

GRAND TOTAL		95,467	7,378	35,532	59,914	63,320
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2010 WINTER ELK SURVEY 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 primarily 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. The winter aerial survey is the basis for population estimates used to set hunting permit quotas.

The Kittson County herd is comprised of three sub-populations – the Caribou-Vita herd which moves back and forth between Caribou WMA in Minnesota, and Vita, Manitoba; the Water Tower herd, which lives largely within Minnesota along the Manitoba border, and the Lancaster herd, which lives east of Lancaster, Minnesota. Elk of the Lancaster herd are year-round residents of Minnesota in an area comprised almost entirely of private land, and have been responsible for most of the depredation claims in that area. There is evidence that escaped captive elk may have been the nucleus for this herd. The recently revised elk plan calls for the elimination of this particular sub-herd of elk to eliminate captive genetics from Minnesota's elk herd.

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 the Thief River Falls 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 Kittson County 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 Caribou-Vita 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). Successful applicants must attend a mandatory orientation at Thief Lake WMA, and animals taken must be registered either at Thief Lake headquarters or at the Karlstad Wildlife office, where biological samples are taken.

RESULTS

The pre-calving population for the Grygla elk herd in 2010 was 40 animals (see Figure 2). A breakdown of the sightings in the elk survey in the Grygla range showed 11 bulls, 24 cows, and 5 calves. Survey conditions were optimal during the survey, with 16" of snow, partly cloudy skies, and cold temperatures from +5 to -10 F. One group of 5 bull elk was sighted during the aerial bovine Tuberculosis deer survey in the area north of the survey area. Some additional areas may need to be added to the survey area to cover all the areas used by the elk. Additional contact with landowners/observers is intended for next year's survey to ensure that all the elk are sighted.

The notable reduction in total herd numbers was intended to move the population toward the goal stated in the elk plan. A total of 14 elk tags were available in the Grygla zone during the 2009 hunting seasons, and 14 elk were taken by the end of the alternate season in January.

An effort was made this year to coordinate the aerial survey in Kittson County with a concurrent survey in the neighboring portions of the Province of Manitoba. By the time that arrangements were made, an early thaw resulted in rapidly deteriorating snow conditions, with the result that the aerial survey was not done in the Kittson County elk range this winter.

Concurrent seasons were held in the range of the Water Tower herd and Lancaster herd in Kittson County this year, again in an effort to move populations toward goal levels. During those hunts, a total of 9 animals were removed from the Lancaster herd, and 5 were removed from the Water Tower herd.

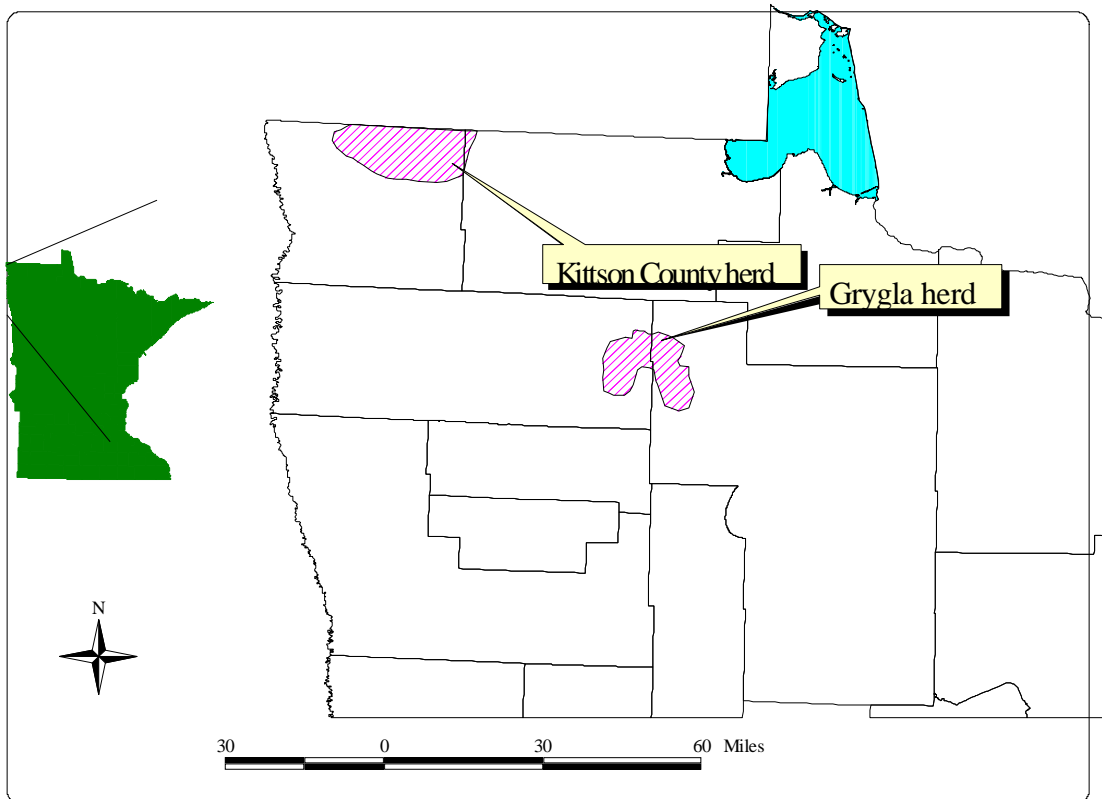


Figure 1. Current elk range in Minnesota, 2010.

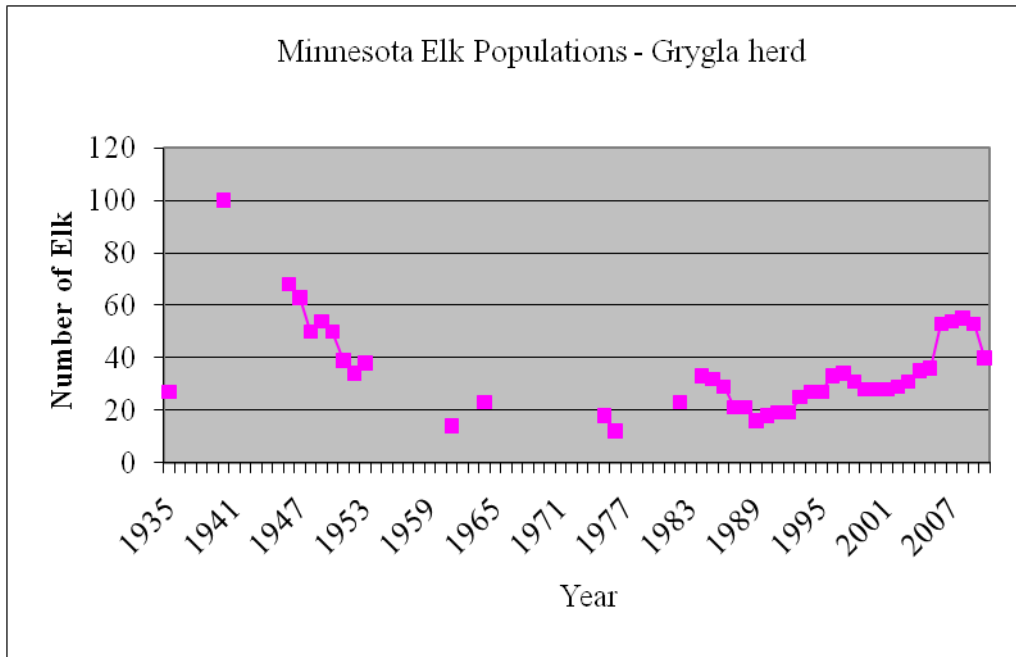


Figure 2. Pre-calving elk numbers in the Grygla herd, 2010.

2009 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 9 registration stations and provide information on the location where they killed their moose, date of kill, and sex of moose harvested.

RESULTS

In 2009, State hunters harvested 103 moose in northeastern Minnesota. No season was held in northwestern Minnesota. Of the 2,746 parties that applied for this year's moose hunt, 225 (8%) were drawn, and 223 purchased licenses (Table 1). Hunters were restricted to harvesting bulls in this year's hunt. Table 1 also lists the number of permits offered by hunting zone, chance of being selected for a permit, and hunter success. The 1854 Treaty Authority issued 55 permits and band members killed 16 moose (14 bulls and 2 cows). The Fond du Lac band issued 68 permits and the preliminary harvest (as of 11/6/2009) was 26 moose (20 bulls and 6 cows). The Fond du Lac season closes 12/31/2009.

DISCUSSION

The success rate of State hunters in 2009 was 46%, an increase of 1% over 2008 (Tables 1 and 2). This was the third year of hunting was for bulls only. The success rate for members of the 1854 Treaty Authority was 29%. The preliminary success rate for the Fond du Lac band was 38%, as of 11/6/2009.

Table 1. Moose harvested, licenses offered and sold, application rate, and party success, in 2009 moose hunt in northeastern Minnesota.

Zone	Bulls	Cows	Total	Licenses Offered	Licenses Sold*	Party Applications*	Chances for Permit	% Success
20	3	0	3	12	12	92	13%	25%
21	5	0	5	6	6	111	5%	83%
22	2	0	2	5	5	37	14%	40%
23	1	0	1	2	2	22	9%	50%
24	5	0	5	9	9	169	5%	56%
25	4	0	4	14	14	309	5%	29%
26	3	0	3	4	4	25	16%	75%
27	3	0	3	5	4	34	15%	75%
28	4	0	4	9	9	51	18%	44%
29	3	0	3	8	8	120	7%	38%
30	3	0	3	7	7	133	5%	43%
31	9	0	9	18	18	354	5%	50%
32	1	0	1	4	4	20	20%	25%
33	2	0	2	7	7	109	6%	29%
34	1	0	1	2	2	33	6%	50%
36	2	0	2	10	10	36	28%	20%
37	1	0	1	3	3	22	14%	33%
60	2	0	2	4	4	28	14%	50%
61	4	0	4	10	10	79	13%	40%
62	10	0	10	19	19	177	11%	53%
63	2	0	2	4	4	25	16%	50%
64	3	0	3	8	7	39	21%	43%
70	4	0	4	7	7	119	6%	57%
72	6	0	6	12	12	176	7%	50%
73	1	0	1	6	6	85	7%	17%
74	4	0	4	4	4	34	12%	100%
76	5	0	5	6	6	65	9%	83%
77	5	0	5	10	10	107	9%	50%
79	2	0	2	5	5	45	11%	40%
80	3	0	3	5	5	90	6%	60%
Total	103	0	103	225	223	2746	8%	46%

*Number of 2, 3, or 4 person parties - rejected applications

Table 2. Applicants, permit numbers, moose harvested, and success rates of state moose hunters since 1993.

Year	Northwest				Northeast				
	Party Applicants	Permits	Moose Harvested	Party Success	Party Applicants	Permits	Licenses Purchased	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%
2007		No Season			2,566	233	229	115	50%
2008		No Season			2,706	247	245	110	45%
2009		No Season			2,746	225	223	103	46%

Note: Harvest was restricted to antlered bulls beginning in 2007.

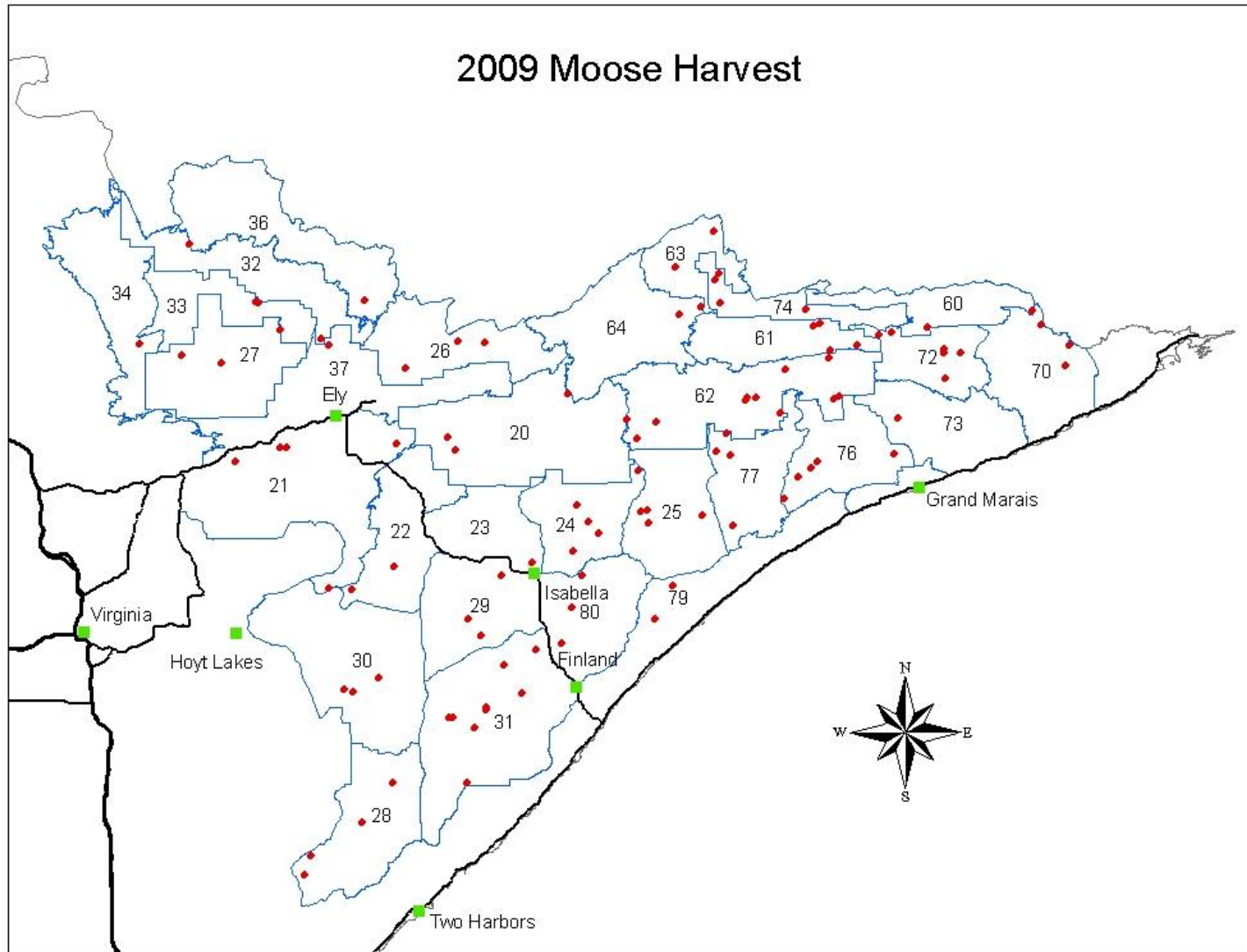


Figure 1. Moose harvest and hunting zones in northeastern Minnesota, 2009

