

Spring 2011 Wild Turkey Harvest Report

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In Minnesota, the spring wild turkey hunting season is designed to regulate harvest and distribute hunting pressure by allocating permits across 81 permit areas (PAs, Figure 1) and 8 time periods using a quota system. Although youth hunters (age 17 or less on opening day of the turkey hunting season) could purchase a permit over the counter, adult 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 by minimizing hunter interference rates while allowing hunters to take the harvestable surplus of turkeys.

There was one notable regulation change for the 2011 spring hunting season: the number of permits available for the last 2 time periods (G and H) was unlimited. Permits for time periods G and H and 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 2011, 54,042 applicants were issued 43,521 permits (Table 1, Figure 2), including 21,754 general lottery permits, 1,629 landowner permits, 8,693 youth permits, and 11,324 surplus permits. An additional 2,462 permits were issued to archers, and 121 permits were issued for the Camp Ripley disabled veterans hunt. Hunters registered 10,055 turkeys, a decrease of 25% from 2010 (Table 1, Figure 2). Hunter success averaged 23% (Table 1), which is below the 5-year average of 32%. Hunter success by PA ranged from 15% (PA 459) to 58% (PA 256; Table 2). Hunter success varied by license type from 9% (archery) to 19% (youth), 25% (general lottery and landowner), and 20% (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 (82%), landowner (94%), and youth (78%) permits were issued during time periods A – D, while the majority of surplus permits (97%) were issued during time periods E – H (Table 4). The 8,693 permits issued to resident and non-resident youth hunters (general lottery, surplus, archery, and mentored) in 2011 was a 73% increase over the 5,024 youth permits issued in 2009, when youth were required to compete for permits in the lottery. Approximately 18% (1,792) of

harvested turkeys were registered using the phone registration system, 30% (3,008) through the internet, and 52% (5,255) at a registration station.

Annual changes in turkey harvest are influenced by turkey population size, hunter effort, and weather. As of 2010, Minnesota's wild turkey population appeared to be stable or growing modestly throughout most of the range, with more rapid growth in the northern PAs (Giudice et al. 2011). The effect of the severe winter of 2010-11 on turkey abundance is unknown, but survival rates may have been lower than average, leaving fewer birds in the spring 2011 population. Although hunting opportunity increased in 2011 with 4 new PAs open to hunting and unlimited permit availability for time periods G and H, hunter effort was reduced, with over 3,000 fewer permits issued in 2011 compared to the previous year despite an increase in permit applications. Reduced hunter effort was likely a function of poor weather during the 2011 spring turkey hunting season. Weather conditions in April and May were relatively cool, wet, and windy across much of Minnesota, with below average temperatures and above average precipitation (Minnesota Climatology Working Group 2011). Thus, the reduced harvest in 2011 was likely the result of poor weather (as it affects hunter effort and turkey vulnerability to hunting), and possibly reduced turkey abundance. Spring turkey harvest in Wisconsin, Iowa, Illinois, and South Dakota also declined from 2010. The combination of severe winter weather and cool, wet spring weather has affected turkey numbers or behavior as well as hunter effort across the upper Midwest.

Literature Cited

- Giudice, J., M. Tranel, and K. Haroldson. 2011. Fall Wild Turkey Population Survey, 2010. Minnesota Department of Natural Resources, St. Paul, MN, Agency Report.
- Minnesota Climatology Working Group. 2011. Climate journal. <http://climate.umn.edu/> Accessed 22 June 2011.

Table 1. Spring applicants, permits available and issued, and registered harvest from 1978 – 2011 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
2011 ^b	54,042	unlimited	43,521 ^c		10,055	23.1

^a Success rates not adjusted for non-participation

^b Youth hunt data included

^c 2,462 permits were issued to archery hunters and are not included in this figure.

Table 2. Permits issued, registered harvest, and hunter success during the 2011 spring wild turkey season and historic success rates by permit area for Minnesota.

Permit Area	2011			Historic mean ^d	
	Permits Issued ^a	Harvest ^b	Success (%) ^c	Success (%)	n
152	40	7	18	33	3
154 ^e	85	19	22		0
156	225	71	32	38	3
157	714	176	25	40	7
159	196	41	21	31	7
183	97	22	23	22	3
213	938	215	23	39	4
214	727	183	25	36	7
215	1,079	288	27	40	12
218	1,223	306	25	44	4
219	634	168	26	31	12
221	626	168	27	44	6
222	472	123	26	37	6
223	974	247	25	35	12
225	1,178	243	21	27	12
227	1,162	298	26	33	12
229	392	86	22	25	11
235	178	31	17	32	12
236	1,256	296	24	38	12
239	1,153	278	24	39	9
240	821	223	27	38	6
241	362	84	23	35	3
242	63	17	27	34	2
243	262	70	27	35	3
244	490	120	24	33	9
245 ^e	104	43	41		0
246	362	124	34	36	2
247	56	20	36	34	1
248	367	87	24	39	7
249	512	121	24	31	8
256 ^e	43	25	58		0
262	40	9	23	38	3
265 ^e	24	13	54		0
266	66	14	21	35	2
338	924	219	24	33	10
339	841	203	24	34	10
341	1,978	461	23	34	10
342	1,356	276	20	27	10

Table 2. Continued

Permit Area	2011			Historic mean ^d	
	Permits Issued ^a	Harvest ^b	Success (%) ^c	Success (%)	n
343	1,673	390	23	40	10
344	922	145	16	27	12
345	828	130	16	22	10
346	1,487	266	18	25	12
347	1,012	199	20	27	10
348	1,068	195	18	25	10
349	2,076	381	18	24	12
412	403	86	21	36	4
416	216	55	25	37	11
417	663	189	29	38	4
420	70	20	29	34	7
421	34	10	29	31	3
422	173	44	25	44	12
423	17	4	24	20	3
424	67	18	27	30	6
425	611	135	22	37	7
426	35	6	17	25	10
427	147	33	22	34	10
428	368	102	28	40	10
431	120	36	30	39	12
433	171	49	29	39	7
440	584	151	26	32	12
442	1,415	337	24	35	12
443	548	129	24	31	12
446	88	27	31	36	6
447	71	18	25	26	6
448	116	30	26	45	7
449	164	27	16	43	7
450	75	17	23	29	12
451	99	22	22	41	8
454	77	17	22	34	6
456	29	9	31	12	6
457	105	32	30	34	12
458	51	11	22	31	6
459	207	31	15	23	12
461	1,083	206	19	34	12
462	972	220	23	37	10
463	264	47	18	29	12
464	321	68	21	29	10

Table 2. Continued

Permit Area	2011			Historic mean ^d	
	Permits Issued ^a	Harvest ^b	Success (%) ^c	Success (%)	n
465	266	56	21	28	10
466	526	132	25	31	9
467	545	98	18	33	9
601	1,613	442	27	38	11

^a 2,462 permits were issued to archery hunters and 121 permits were issued for the Camp Ripley disabled veterans hunt and are not included in these figures

^b 40 turkeys were registered from the Camp Ripley disabled veterans hunt and are not included in these figures

^c Success rates not adjusted for non-participation

^d Mean success rate (%) over all spring turkey seasons (*n*) between 1999 – 2010 or since a permit area boundary change occurred.

^e New permits area for the 2011 spring season

Table 3. Permits available and issued, registered harvest, and success (2011 and mean) by time period for the 2011 spring wild turkey season, Minnesota.

Time period ^a	Permits		2011		2001 – 2010 Mean success (%)
	Available	Issued	Registered harvest	Success (%) ^b	
A	5,705	7,177	2,128	30	43
B	5,705	5,402	1,500	28	39
C	5,705	7,217	1,514	21	31
D	5,705	6,485	1,254	19	28
E	5,705	5,159	1,070	21	32
F	5,705	4,255	865	20	28
G	unlimited	4,960	1,069	22	25
H	unlimited	2,489	522	21	23
Youth hunt ^c	273	256	93	36	
Camp Ripley ^d					
802A		21	3	14	
801B		39	14	36	
802B		3	1	33	
801C		41	17	41	
801D		17	5	29	

^a A = April 13 – 17, B = April 18 – 22, C = April 23 – 27, D = April 28 – May 2, E = May 3 – 7, F = May 8 – 12, G = May 13 – 19, and H = May 20 – 26

^b Success rates not adjusted for non-participation

^c In 2011 all mentored youth hunts were in time period A except one, which was in time period C.

^d Disabled veterans hunt

Table 4. Permits available and issued by license type (resident and non-resident) and time period for the spring 2011 wild turkey season, Minnesota.

Time period	Permits available	Permits issued			
		General lottery	Landowner	Surplus	Youth ^b
A	5,705	4,367	659	41	2,357
B	5,705	4,407	348	145	502
C	5,705	4,480	351	63	2,332
D	5,705	4,623	172	98	1,592
E	5,705	2,471	56	2,205	427
F	5,705	1,400	43	2,506	306
G	unlimited	3	0	4,231	726
H	unlimited	3	0	2,035	451
Total ^a	unlimited	21,754	1,629	11,324	8,693

^aTotal excludes 121 permits issued for the Camp Ripley disabled veterans hunt

^bTotal includes 247 permits issued for mentored youth hunts in Time Period A and 9 in Time Period C.

2011 Spring Wild Turkey Permit Areas

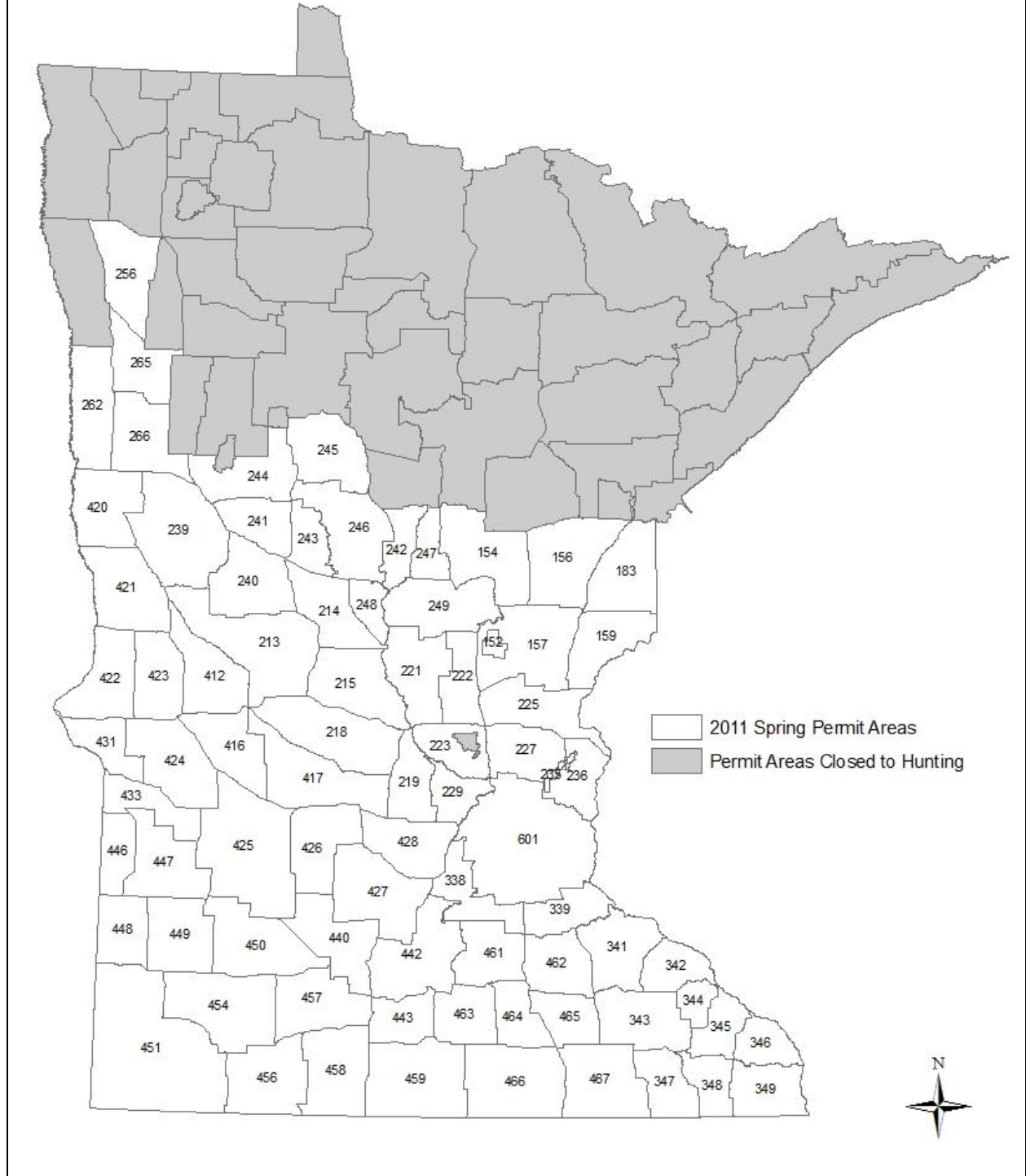


Figure 1. Permit areas open for hunting during the 2011 spring turkey hunting season, Minnesota.

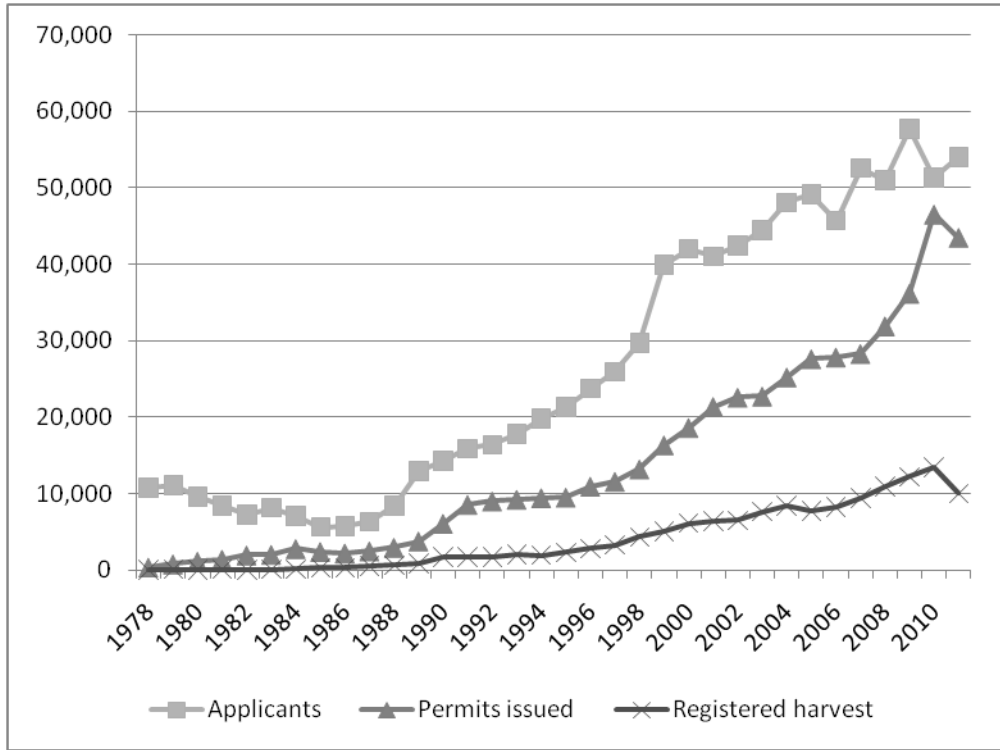


Figure 2. Applicants, permits issued, and registered harvest for the spring wild turkey seasons 1978-2011, Minnesota.