

Minnesota's Wild Turkey Harvest – Fall 2016, Spring 2017

Lindsey Messinger Farmland Wildlife Populations and Research Group Minnesota Department of Natural Resources Madelia, Minnesota 15 August 2017

Summary of Season Structure

This report summarizes the fall 2016 and spring 2017 Minnesota wild turkey harvest. The fall turkey season was 30 days in length (October 3- November 1) and allowed for an unlimited number of hunters to take one wild turkey of either sex in one of 12 pre-selected permit areas (501-512, Figure 1). Permits for archery and youth hunters were valid statewide (i.e., no restrictions on permit area).

Although significant changes were made to the spring turkey season structure in 2016, there were no major changes for the 2017 season. The spring turkey season was 49 days in length (12 April – 30 May) and allowed hunters to take one bearded wild turkey (tom, jake, or bearded hen). The spring turkey season was divided into six time periods with permits valid during a specified time period (A-F) and permit area (501-512; Figure 1). A restricted number of permits were available through a lottery system in each permit area during time periods A and B (A: April 12-18, and B: April 19-25). Permits not sold during the lottery process were available for over-the-counter surplus sales. Permits for the remaining time periods (C: April 26 – May 2, D: May 3-9, E: May 10-16, F: May 17-30) were available over-the-counter in unlimited quantities in each permit area. Hunters possessing a permit unfilled during time periods A-E were permitted to hunt during the final time period (F) in their respective permit area. Permits for archery and youth hunters were valid the entire season and statewide (i.e., no time period or permit area restrictions).

Fall 2016 Season

Permits Issued

Permits issued to hunters increased slightly from 8,210 permits in 2015 to 8,562 in 2016 (Table 1, Figure 2). Youth permit sales accounted for 23.4% of total license sales during the fall 2016 season which increased from 14.5% in fall 2015. This may reflect recent regulation changes which permit youth to hunt statewide (i.e., no permit area restrictions).

Harvest

There were 1,111 harvested turkeys registered during the fall 2016 season which was a 1% decrease from 2015 (Table 1). Hunter success rates declined slightly (-0.7%) to 13.0% in 2016 from 2015 and remained below the 5-year average (13.9%). The greatest number of permits were issued in permit areas 507 and 508 and this effort was reflected in harvest with these two permit areas also registering the highest harvest numbers (Table 2). Statewide, females represented 54.4% of the total harvest while juvenile males (jakes) and mature males (toms) represented 15.7% and 30.0% of the total harvest respectively (Table 2).

Spring 2017 Season

Permits Issued

There were 49,919 permits issued during the spring 2017 season, including 10,324 general lottery and landowner permits, 11,355 youth permits, 11,249 archery permits, and 16,991 surplus over-the-counter permits (Table 3). The total number of permits purchased remained relatively steady (<1% decrease) in 2017 (Table 4). Youth permit sales composed 22.7% of total permit sales in 2017, a slight decrease (<1%) from 2016 (Table 4). Archery permits accounted for 22.5% of total permit sales (Table 3). Archery permits issued increased 8.8% in 2017 (Table 4); this follows a 105% increase in spring 2016 after regulation changes expanded opportunity, allowing archery hunters to hunt statewide during any time period. Purchase of lottery permits declined by 8.9% from 2016, continuing a declining trend whereas purchase of surplus gun permits remained steady in 2017.

Harvest

Hunters registered 11,854 turkeys (Tables 3, 4, 5, & 7), which was above the 5-year average (11,548 turkeys, Figure 3) and the best consecutive 5-year harvest average (11,610 turkeys during the 2008-2012 seasons). Although harvest remained the highest in the core turkey range in permit areas 507 (3,098 turkeys) and 501 (2,622 turkeys), harvest in permit area 508 (1,632 turkeys) surpassed 503 (1,373 turkeys) for the first time. Youth harvest (2,168 turkeys) declined 3.5% from 2016 whereas archery harvest (1,665 turkeys) increased 12% from 2016 (Table 3). The winter of 2016-2017 was again mild, and likely was not a significant factor beyond normal winter mortality for turkeys. Spring weather was variable, but generally warm and spring "green-up" was earlier than normal. Periods of rain during the A and B time periods may have impacted hunter participation and effort and could account for lower harvest rates during those periods in 2017.

Table 1. Permits available, number of applicants, permits issued, registered harvest, and hunter success rates for fall wild turkey seasons in Minnesota, 1990-2016.

Year	Permits available	Applicants	Permits issued	Registered harvest	Hunter success (%) ^a
1990	1,000	4,522	951	326	34.3
1991	2,200	2,990	2,020	552	27.3
1992	2,200	2,782	2,028	588	29.0
1993	2,400	3,186	2,094	605	28.9
1994	2,500	3,124	2,106	601	28.5
1995	2,500	3,685	2,125	648	30.5
1996	2,500	4,453	2,289	685	29.9
1997	2,580	4,574	2,378	698	29.4
1998	2,710	4,526	2,483	828	33.3
1999	2,890	5,354	2,644	865	32.7
2000	3,090	5,263	2,484	735	29.6
2001	2,870	4,501	2,262	629	27.8
2002	3,790	5,180	2,945	594	20.2
2003	3,870	5,264	2,977	889	29.9
2004	4,380	5,878	3,277	758	23.1
2005	4,410	4,542	2,978	681	22.9
2006	4,290	4,167	2,802	618	22.1
2007	4,490	4,464	2,837	695	24.5
2008	7,560	5,834	4,981	1,187	23.8
2009	9,330	7,738	5,019	1,163	23.2
2010	10,430	6,869	6,607	1,353	20.5
2011	10,430	3,538	5,382	953	17.7
2012	Unlimited	N/A	10,779	1,753	16.3
2013	Unlimited	N/A	8,193	1,078	13.2
2014	Unlimited	N/A	8,339	1,137	13.6
2015	Unlimited	N/A	8,210	1,124	13.7

Year	Permits available	Applicants	Permits issued	Registered harvest	Hunter success (%) ^a
2016	Unlimited	N/A	8,562	1,111	13.0

^a Success rates not adjusted for non-participation.

Table 2. Permits issued, registered harvest by sex, total registered harvest, regular gun harvest, and hunter success rates during the 2016 fall wild turkey season in Minnesota.

Permit Area	Regular permits issued ^a	Toms ^b	Jakes ^b	Hens ^b	Total registered harvest ^b	Regular gun harvest ^c	Regular gun success rates (%)
501	1,068	52	20	95	167	143	13.4
502	100	3	2	9	14	10	10.0
503	675	33	9	64	106	83	12.3
504	226	8	6	11	25	22	9.7
505	417	23	9	25	57	47	11.3
506	226	8	6	21	35	30	13.3
507	1,635	89	52	154	295	245	15.0
508	1,242	72	50	131	253	214	17.2
509	130	13	5	17	35	30	23.1
510	696	27	13	72	112	72	10.3
511	62	1	1	0	2	2	3.2
512	82	4	1	5	10	7	8.5
TOTAL	6,559	333	174	604	1,111	905	13.8

^a Archery and youth permits were not included (valid in all permit areas).

^b Total harvest for all license types.

^c All firearm harvest, excluding harvest from youth and archery license holders.

Table 3. Total permits sold, harvest, and success rate by type of permit during the spring 2017 wild turkey season in Minnesota.

	Total permits sold	Harvest	Success (%) ^a
Lottery	10,324	3,836 ^b	37.1
Surplus	16,991	4,185	24.6
Youth	11,355	2,168	19.1
Archery	11,249	1,665	14.8
Total	49,919	11,854	23.7

^a Success rates not adjusted for non-participation.

Table 4. Permits available, permits issued, registered harvest, and relative success rates from 1978-2017 for all spring wild turkey hunting seasons in Minnesota.

	Permits			Harvest	
Year	Available	Issued	Issued (%)	Registered harvest	Success (%) ^a
1978	420	411	97.9	94	22.9
1979	840	827	98.5	116	14.0
1980	1,200	1,191	99.3	98	8.2
1981	1,500	1,437	95.8	113	7.9
1982	2,000	1,992	99.6	106	5.3
1983	2,100	2,079	99.0	116	5.6
1984	3,000	2,837	94.6	178	6.3
1985	2,750	2,449	89.1	323	13.2
1986	2,500	2,251	90.0	333	14.8
1987	2,700	2,520	93.3	520	20.6
1988	3,000	2,994	99.8	674	22.5
1989	4,000	3,821	95.5	930	24.3
1990	6,600	6,126	92.8	1,709	27.9
1991	9,170	8,607	93.9	1,724	20.0

^b Includes military and military disabled veteran permit types.

	Permits			Harvest	
Year	Available	Issued	Issued (%)	Registered harvest	Success (%) ^a
1992	9,310	9,051	97.2	1,691	18.7
1993	9,625	9,265	96.3	2,082	22.5
1994	9,940	9,479	95.4	1,975	20.8
1995	9,975	9,550	95.7	2,339	24.5
1996	12,131	10,983	90.5	2,841	25.9
1997	12,530	11,610	92.7	3,302	28.4
1998	14,035	13,229	94.3	4,361	33.0
1999	18,360	16,387	89.3	5,132	31.3
2000	20,160	18,661	92.6	6,154	33.0
2001	22,936	21,404	93.3	6,383	29.8
2002	24,136	22,607	93.7	6,516	28.8
2003	25,016	22,770	91.0	7,666	33.7
2004	27,600	25,261	91.5	8,434	33.4
2005	31,748	27,638	87.1	7,800	28.2
2006	32,624	27,876	85.4	8,241	30.0
2007 ^b	33,976	28,320	83.4	9,412	33.2
2008 ^b	37,992	31,942	84.1	10,994	34.4
2009 ^b	42,328	36,193	85.5	12,210	33.7
2010 ^b	55,982	46,548°	83.0	13,467	28.9
2011 ^b	Unlimited	43,521 ^c	N/A	10,055	23.1
2012 ^b	Unlimited	38,906 ^c	N/A	11,325	29.1
2013 ^b	Unlimited	34,281 ^c	N/A	10,390	30.3
2014 ^b	Unlimited	43,305°	N/A	11,447	26.4
2015 ^b	Unlimited	41,623°	N/A	11,734	28.2
2016 ^b	Unlimited	39,648°	N/A	12,313	31.1
2017 ^b	Unlimited	38,670 ^c	N/A	11,854	30.7

^a Success rates not adjusted for non-participation.

Table 5. Permits issued, registered harvest, and hunter success during the 2017 spring wild turkey season in Minnesota.

Permit area	Regular permits issued ^a	Total registered harvest ^b	Regular gun harvest ^c	Regular gun success rates (%)
501	6,667	2,622	2,037	30.6
502	620	177	131	21.1
503	3,235	1,373	964	29.8
504	725	311	181	25.0
505	2,217	904	671	30.3
506	1,033	426	267	25.8
507	6,586	3,098	2,002	30.4
508	3,770	1,632	1,044	27.7
509	332	204	106	31.9
510	1,922	1,014	577	30.0
511	103	53	20	19.4
512	105	40	21	20.0
TOTAL	27,315	11,854	8,021	29.4

^a Permits issued for the Camp Ripley disabled veterans hunt, archery, and youth permits were not included.

^b Youth hunt data included.

^c Permits issued to archery hunters were not included. There were 2,462, 3,911, 4,550, 4,899, 5,052, 10,343, and 11,249 permits issued to archers in 2011, 2012, 2013, 2014, 2015, 2016, and 2017, respectively.

^b Total harvest for all license types.

^c All lottery, military, and surplus permit harvest, excluding youth and archery licenses.

Table 6. Permits available and issued by license type (resident and non-resident) and time period for the spring 2017 wild turkey season in Minnesota.

Time period	Permits available	General lottery ^a	Surplus	Youth	Archery
A: Apr. 12-18	7,010	5,802	358		
B: Apr. 19-25	7,010	4,504	1,873	Not applicable – Youth and archery permits were valid during all time periods.	
C: Apr. 26-May 2	Unlimited	5	7,215		
D: May 3-9	Unlimited	4	4,359		
E: May 10-16	Unlimited	5	2,012		
F: May 17-30	Unlimited	4	1,174 ^b		
Total ^a	Unlimited	10,324	16,991	11,355	11,249

^a Includes landowner licenses.

Table 7. Total harvest by time period during the spring 2017 wild turkey season in Minnesota.

Time period	Total harvest	Harvest (%)
А	3,793	32.0
В	2,815	23.7
С	2,041	17.2
D	1,383	11.7
E	665	5.6
F	1,157	9.8
Total	11,854	100

^b Number of surplus licenses sold for this time period. Actual number of hunters in unknown because all unsuccessful hunters from previous time periods were permitted to hunt in the final (F) season.

Wild Turkey Permit Areas

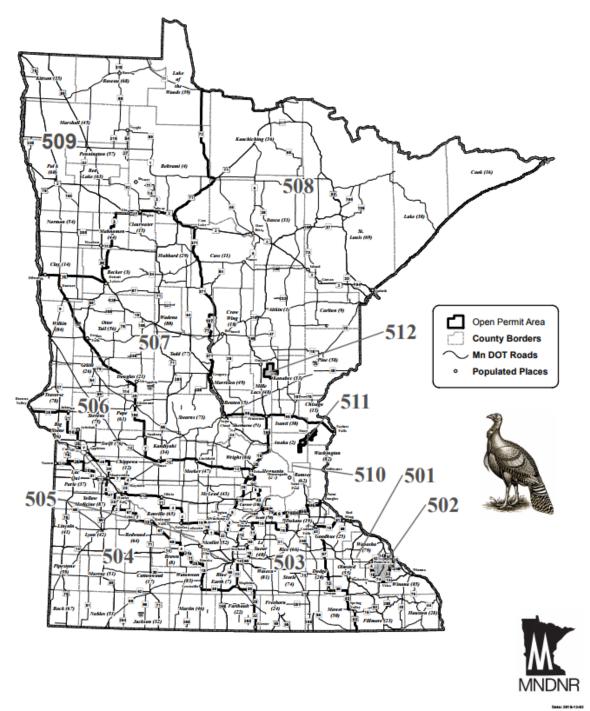


Figure 1. Permit areas open for hunting, fall 2016 and spring 2017 wild turkey seasons in Minnesota.

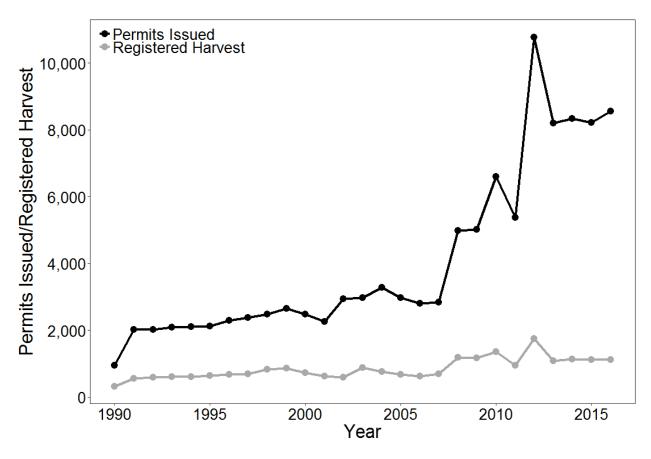


Figure 2. Permits issued and registered harvest for fall wild turkey seasons in Minnesota, 1990-2017.

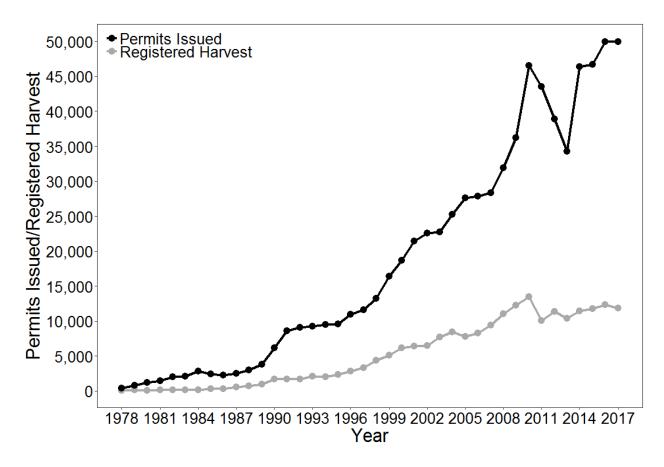


Figure 3. Permits issued and registered harvest for spring wild turkey seasons in Minnesota, 1978-2017.