

Minnesota's Wild Turkey Harvest – Fall 2017, Spring 2018

Lindsey Messinger
Farmland Wildlife Populations and Research Group
Minnesota Department of Natural Resources
Madelia, Minnesota
08 February 2019

Summary of Season Structure

This report summarizes the fall 2017 and spring 2018 Minnesota wild turkey harvest. The fall turkey season was 30 days in length (September 30 - October 29) 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). Fall permits for youth hunters were valid statewide (i.e., no restrictions on permit area); archery and firearms hunters were restricted to a declared permit area.

There were no major changes to the spring turkey season structure in 2018. The spring turkey season was 44 days in length (18 April – 31 May) and allowed hunters to take one bearded wild turkey (tom, jake, or bearded hen). The spring turkey season was divided into six distinct 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 18-24, and B: April 25-May 1). Permits not sold during the lottery process were available for over-the-counter surplus sales. Permits for the remaining time periods (C: May 2-8, D: May 9-15, E: May 16-22, F: May 23-31) 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 2017 Season

Permits Issued

Permits issued to hunters decreased 10% from 8,469 permits in 2016 to 7,650 permits in 2017 (Table 1, Figure 2). Youth permit sales accounted for 22% of total license sales during the fall 2017 season which was similar to 2016.

Harvest

There were 1,015 harvested turkeys registered during the fall 2017 season which decreased 14% from 1,176 harvested turkeys registered in 2016 (Table 1; Figure 2). Hunter success rate increased slightly (2%) from 2016 to 13% in 2017, and was similar to the 5-year average. The greatest number of permits were issued in permit areas 507, 508, and 501. This effort was reflected in harvest with these three permit areas also registering the highest harvest (Table 2). Statewide, females (hens) represented 50% of the total harvest while juvenile males (jakes) and mature males (toms) represented 16% and 34% of the total harvest respectively (Table 2).

Spring 2018 Season

Permits Issued

There were 45,399 permits issued during the spring 2018 season, including 8,739 general lottery and landowner permits, 9,807 youth permits, 11,200 archery permits, and 15,621 surplus over-the-counter permits (Table 3). The total number of permits purchased decreased 7% in 2018 (Table 4). Youth permit sales composed 22% of total permit sales while archery permits accounted for 25% of total permit sales (Table 3). Archery permits issued in 2018 were similar to 2017 (Table 4) and may indicate archery permit sales are leveling after regulation changes expanded opportunity, allowing archery hunters to hunt statewide during any time period. Purchase of lottery permits declined by 14% from 2017, continuing a declining trend. Surplus permits issued also decreased 6% in 2017. The greatest number of regular gun permits (archery and youth permits are valid state-wide) were issued in permit areas 507, 501, and 508 (in descending order; Table 5). Permit areas 507 and 501 represent core turkey range in Minnesota and permit area 508 represents an area of potentially expanding opportunity as this area was expanded in 2016 to include the entire north-central and north-eastern regions of Minnesota. Permit sales for the first non-lottery time period (C) were the highest state-wide, followed by the lottery time-periods (A & B; Table 6).

Harvest

Hunters registered 10,705 turkeys (Tables 3, 4, 5, & 7), which was below the 5-year average (11,581 turkeys, Figure 3). Although harvest remained the highest in the core turkey range in permit areas 507 (2,826 turkeys) and 501 (2,040 turkeys), harvest in permit area 508 (1,698 turkeys) surpassed 503 (1,168 turkeys) in 2018 for the second year in a row. Youth harvest (1,763 turkeys) and lottery harvest declined 18% and 19%, respectively, from 2017 whereas archery (1,661 turkeys) and surplus (4,211 turkeys) harvest were similar to 2017 (Table 3). These trends may be attributable to weather conditions (see below).

Weather Summary

The winter of 2017-2018 was more normal with variable snowfall across the wild turkey range, but with at least one 2-week period where snow depths exceeded 6 inches across much of the core range. However, these conditions were likely not a significant factor beyond normal winter mortality for wild

turkeys. Spring weather was wet and cold across much of the turkey range. There were multiple snow events in April with accumulations between 3-8 inches. Late-season snowfall likely delayed nesting activities and vegetation “green up” was later than normal. Likewise, conditions were wet, especially in permit areas 501 and 503, where precipitation was 1 inch or more above normal across much of these areas. Snow was still present across much of the turkey range during period A, despite opening almost a week later than in 2017. These weather conditions likely impacted hunter participation and effort, and therefore harvest, especially for gun hunters during the first lottery period. Warmer than normal conditions late in the season during period F may have also impacted hunter participation, effort, and ultimately harvest.

Table 1. Permits available, number of applicants, permits issued, registered harvest, and hunter success rates for fall wild turkey seasons in Minnesota, 2008-2017.

Year	Permits available	Applicants	Permits issued	Registered harvest	Hunter success (%) ^a
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 ^b	Unlimited	N/A	10,628	1,752	16.5
2013 ^b	Unlimited	N/A	8,060	1,137	14.1
2014 ^b	Unlimited	N/A	8,236	1,216	14.8
2015 ^b	Unlimited	N/A	8,109	1,213	15.0
2016 ^b	Unlimited	N/A	8,469	1,176	13.9
2017	Unlimited	N/A	7,650	1,015	13.3

^a Success rates not adjusted for non-participation.

^b Permits issued, registered harvest, and derived hunter success (%) was reviewed and adjusted to address inconsistencies in data query and previous reporting.

Table 2. Permits issued, registered harvest by sex, total registered harvest, regular gun harvest, and gun hunter success rates during the 2017 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	912	62	21	82	165	141	15.5
502	82	1	1	4	6	5	6.1
503	624	35	12	60	107	88	14.2
504	197	6	3	6	15	10	5.1
505	353	18	6	21	45	41	11.6
506	217	5	5	15	25	22	10.1
507	1,509	98	49	151	298	258	17.1
508	1,161	63	43	106	212	181	15.6
509	158	15	8	18	41	24	15.2
510	605	38	16	41	95	88	14.5
511	69	0	0	1	1	1	1.4
512	79	2	1	2	5	5	6.3
TOTAL	5,968	343	165	507	1,015	864	14.5

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

^b Total harvest for all license types.

^c All firearm harvest except youth.

Table 3. Total permits sold, harvest, and success rate by type of permit during the spring 2018 wild turkey season in Minnesota.

	Total permits sold	Harvest	Success (%) ^a
Lottery	8,739	3,070 ^b	35.2
Surplus	15,621	4,211	27.0
Youth	9,807	1,763	18.0
Archery	11,200	1,661	14.8
Total	45,367^c	10,705	23.6

^a Success rates not adjusted for non-participation.

^b Includes military and military disabled veteran permit types.

^c Does not include military permit types. There were 32 military permits issued in 2018.

Table 4. Permits available, permits issued, registered harvest, and relative success rates from 2009-2018 for all spring wild turkey hunting seasons in Minnesota.

Year	Permits				Harvest	
	Available	Issued	Issued (%)	Archery Permits Issued	Registered harvest	Success (%) ^a
2009 ^b	42,328	36,193	85.5		12,210	33.7
2010 ^b	55,982	46,548 ^c	83.0	2,910	13,467	28.9
2011 ^b	Unlimited	43,521 ^c	N/A	2,462	10,055	23.1
2012 ^{b,d}	Unlimited	38,155 ^c	N/A	3,325	11,276	29.6
2013 ^{b,d}	Unlimited	40,430 ^c	N/A	3,885	10,321	25.5
2014 ^{b,d}	Unlimited	42,134 ^c	N/A	4,760	11,425	27.1
2015 ^{b,d}	Unlimited	40,824 ^c	N/A	4,930	11,694	28.6
2016 ^{b,d}	Unlimited	38,895 ^c	N/A	10,132	12,277	31.6
2017 ^{b,d}	Unlimited	37,882 ^c	N/A	11,031	11,803	31.2
2018 ^b	Unlimited	34,199 ^c	N/A	11,200	10,705	31.3

^a Success rates not adjusted for non-participation.

^b Youth hunt data included.

^c Permits issued to archery hunters were not included (to facilitate comparison to previous years).

^d Permits issued, derived issued %, registered harvest, and derived hunter success (%) were reviewed and adjusted to address inconsistencies in data query and previous reporting.

Table 5. Permits issued, registered harvest, and hunter success during the 2018 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	5,855	2,240	1,739	29.7
502	485	139	114	23.5
503	2,981	1,168	823	27.6
504	593	267	167	28.2
505	1,905	780	595	31.2
506	915	346	232	25.4
507	5,946	2,826	1,830	30.8
508	3,469	1,698	1,078	31.1
509	315	201	107	34.0
510	1,715	931	543	31.2
511	136	64	32	23.5
512	77	45	21	27.3
TOTAL	24,392	10,705	7,281	29.8

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

^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 2018 wild turkey season in Minnesota.

Time period	Permits available	General lottery ^a	Surplus	Youth	Archery
A: Apr. 18-24	7,010	5,351	217	Not applicable – Youth and archery permits were valid during all time periods.	
B: Apr. 25-May 1	7,010	3,399	2,542		
C: May 2-8	Unlimited	9	7,508		
D: May 9-15	Unlimited	8	2,989		
E: May 16-22	Unlimited	2	1,818		
F: May 23-31	Unlimited	2	547 ^b		
Total^a	Unlimited	8,771	15,621	9,807	11,119

^a Includes landowner and military permits.

^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.

Table 7. Total harvest by time period during the spring 2018 wild turkey season in Minnesota.

Time period	Total harvest	Harvest (%)
A	2,946	27.5
B	2,672	25.0
C	2,591	24.2
D	1,038	9.7
E	677	6.3
F	781	7.3
Total	10,705	100

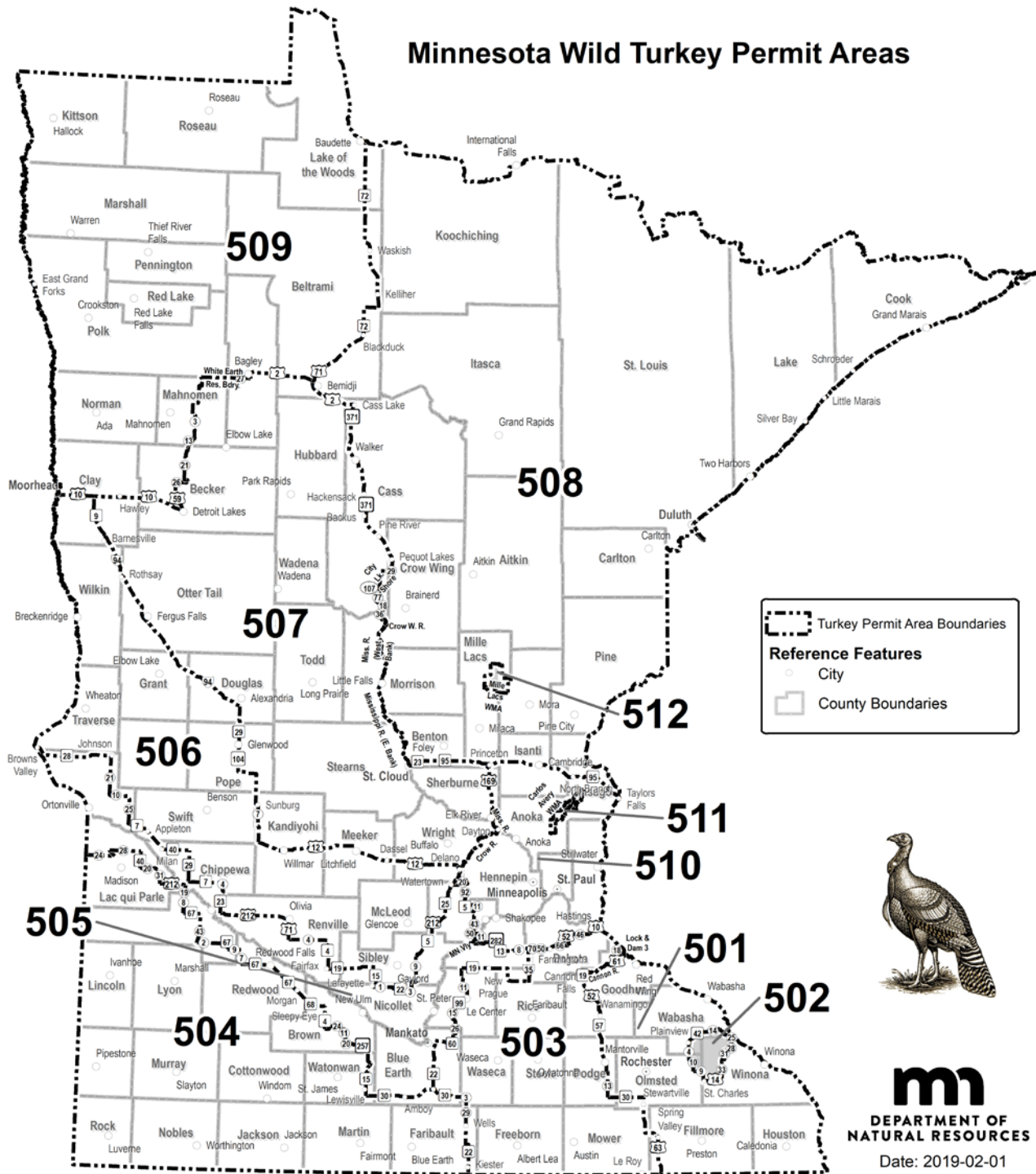


Figure 1. Permit areas open for hunting, fall 2017 and spring 2018 wild turkey seasons in Minnesota.

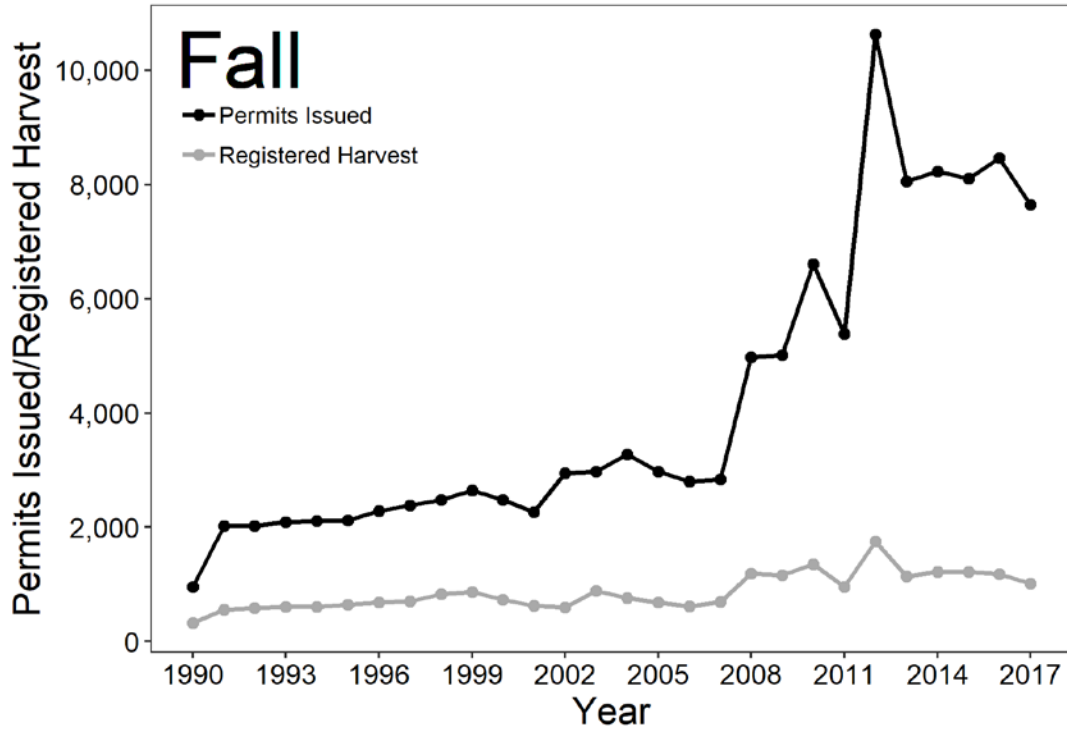


Figure 2. Permits issued and registered harvest for fall wild turkey seasons in Minnesota, 1990-2017.

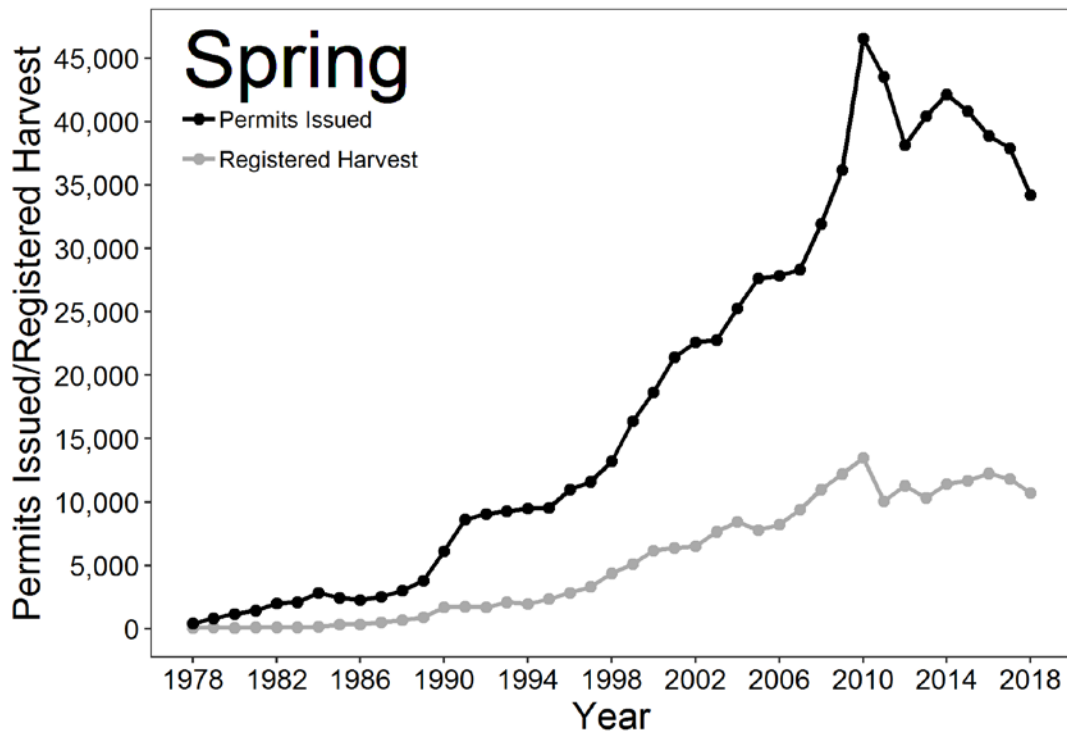


Figure 3. Permits issued and registered harvest for spring wild turkey seasons in Minnesota, 1978-2018.