

Minnesota's Wild Turkey Harvest – Fall 2018, Spring 2019

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Summary of Season Structure

This report summarizes the fall 2018 and spring 2019 Minnesota wild turkey harvest. The fall turkey season was 30 days in length (29 September – 28 October) and allowed for an unlimited number of hunters to take one wild turkey of either sex in one of 12 hunter declared permit areas (501-512, Figure 1). Fall permits for youth hunters were valid statewide (i.e., no restrictions on permit area); all other hunters were restricted to a declared permit area.

There were no major changes to the spring turkey season structure in 2019. The spring turkey season was 45 days in length (17 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 (A-F) with permits valid during a specified time period 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: 17-23 April, and B: 24-30 April). Permits not sold during the lottery process were available for over-the-counter surplus sales. Permits for the remaining time periods (C: 1-7 May, D: 8-14 May, E: 15-21 May, F: 22-31 May) 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 2018 Season

Permits Issued

Permits issued to hunters decreased 12% from 7,650 permits in 2017 to 6,719 permits in 2018 (Table 1, Figure 2), and was 10% below the 10-year average (7,488 permits issued). Youth permit sales accounted for 21% of total license sales during the fall 2018 season which was similar to 2017.

Harvest

There were 834 harvested turkeys registered during the fall 2018 season which decreased 18% from 1,015 harvested turkeys registered in 2017 and was 29% below the 10-year average (1,181 harvested turkeys registered) (Table 1; Figure 2). A hunter success rate of 12% in 2018 was similar to 2017 (13%), and was 23% below the 10-year average (16.1%). The greatest number of permits were issued in permit areas 507, 508, and 501 (Table 2). These three permit areas also had the highest registered harvest (Table 2). Statewide, females (hens) represented 56% of the total harvest while juvenile males (jakes) and mature males (toms) represented 15% and 28% of the total harvest respectively (Table 2).

Spring 2019 Season

Permits Issued

There were 46,424 permits issued during the spring 2019 season, including 8,901 general lottery and landowner permits, 15,664 surplus over-the-counter permits, 10,032 youth permits, and 11,792 archery permits (Table 3). The total number of permits purchased increased 2% in 2019 from 2018 but was 13% below the 10-year average (39,724 permits issued) (Table 4). Youth permit sales comprised 22% of total permit sales while archery permits accounted for 25% of total permit sales (Table 3). These percentages were similar to 2018 (Table 4) and may indicate archery and youth permit sales are leveling after regulation changes in 2016 which allowed archery and youth hunters to hunt statewide during any time period. Purchase of lottery permits increased 2% from 2018; however, lottery permit applications remained under-subscribed in many permit areas. Surplus permits issued in 2019 were similar to 2018. The greatest number of regular gun permits were issued in permit areas 507, 501, and 508 (in descending order; Table 5). Permit areas 507 and 501 represent the core turkey range in Minnesota. Permit area 508 represents an area of potentially expanding opportunity as this permit area was expanded in 2016 to include the entire north-central and northeastern regions of Minnesota. Permit sales for the first non-lottery time period (C) were the highest statewide, followed by lottery time periods A and B, respectively (Table 6).

Harvest

Hunters registered 10,699 turkeys (Tables 3, 4, 5, & 7), which was 6% below the 10-year average (11,372 turkeys, Figure 3, Table 4). Although harvest remained the highest in the core turkey range in permit areas 507 (2,821 turkeys) and 501 (2,237 turkeys), harvest in permit area 508 (1,623 turkeys) continued to surpass 503 (1,139 turkeys) for the third year in a row (Table 5). Youth (1,835 turkeys), lottery (3,171 turkeys), and archery (1,721 turkeys) harvest each increased 4% from 2018 whereas surplus harvest (3,966 turkeys) decreased 6% from 2018 (Table 3). These trends may be attributable to weather conditions (see below).

Weather Summary

Weather conditions can impact wild turkey abundance and behavior as well as wild turkey hunter participation. Weather may help to explain short-term trends in hunter participation and harvest,

particularly during the spring wild turkey hunting season when a majority of wild turkey hunter harvest occurs. Winter 2018-2019 was mild through mid-January 2019. Record-breaking low and persistent sub-zero temperatures occurred in the final week of January and multiple snowfall events in February and March blanketed much of the core turkey range with deep snow exceeding 6 inches from mid-February through mid-March. Prolonged periods of deep snow can impede the ability of adult turkeys to locate food resources which are critical for maintaining optimal body condition and may impact overwinter survival. Spring weather was wet and cold across much of the turkey range with multiple rain events throughout the spring hunting season. Lingering snow and colder than normal temperatures likely delayed nesting activities and vegetation “green up” was later than normal. Cold and wet weather conditions may have impacted hunter participation and effort, and therefore harvest, in some areas.

Table 1. Permits available, number of applicants, permits issued, registered harvest, and hunter success rates for the ten most recent fall wild turkey seasons in Minnesota, 2009-2018.

Year	Permits available	Applicants	Permits issued	Registered harvest	Hunter success (%) ^a
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
2018	Unlimited	N/A	6,719	834	12.4

^a Total hunter success (all permits issued divided by registered harvest). Success rates not adjusted for non-participation or un-registered harvest.

^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 harvest, and hunter success rates during the 2018 fall wild turkey season in Minnesota.

Permit area	Regular permits issued ^a	Toms ^b	Jakes ^b	Hens ^b	Total registered harvest ^b	Regular harvest ^c	Regular success rates (%) ^d
501	730	32	12	52	96	86	11.8
502	64	0	2	3	5	5	7.8
503	515	21	5	39	65	55	10.7
504	119	2	4	4	10	10	8.4
505	267	12	5	18	35	31	11.6
506	185	9	2	14	25	23	12.4
507	1,386	81	43	175	299	264	19.0
508	1,162	41	32	96	169	147	12.7
509	162	9	9	24	42	27	16.7
510	586	34	11	37	82	74	12.6
511	65	1	0	3	4	4	6.2
512	68	1	0	1	2	2	2.9
TOTAL	5,309	243	125	466	834	728	13.7

^a Youth permits were not included as there is no declared permit area (valid in all permit areas). No separate license type for archery hunters was available so archery hunters are reflected in regular permits issued.

^b Total harvest for all license types.

^c All firearm and archery harvest, excluding youth.

^d Overall youth success rate was 7.5% in 2018; unable to quantify by permit area as youth permits were valid in all permit areas).

Table 3. Total permits issued, harvest, and success rate by permit type during the spring 2019 wild turkey season in Minnesota.

	Total permits issued	Harvest	Success (%) ^a
Lottery	8,901	3,171	35.6
Surplus	15,664	3,966	25.3
Youth	10,032	1,835	18.3
Archery	11,792	1,721	14.6
Military	35	6	17.1
Total	46,424	10,699	23.0

^a Success rates not adjusted for non-participation.

Table 4. Permits available, permits issued, registered harvest, and hunter success rates for the ten most recent spring wild turkey hunting seasons in Minnesota, 2010-2019.

Year ^a	Permits				Harvest	
	Available	Issued ^b	Issued (%)	Archery permits issued	Registered harvest	Success (%) ^c
2010 ^d	55,982	46,548	83.0	2,910	13,467	27.2
2011 ^d	Unlimited	43,521	N/A	2,462	10,055	21.9
2012 ^d	Unlimited	38,155	N/A	3,325	11,276	27.2
2013 ^d	Unlimited	40,430	N/A	3,885	10,321	23.3
2014 ^d	Unlimited	42,134	N/A	4,760	11,425	24.4
2015 ^d	Unlimited	40,824	N/A	4,930	11,694	25.6
2016 ^d	Unlimited	38,895	N/A	10,132	12,277	25.0
2017 ^d	Unlimited	37,882	N/A	11,043	11,803	24.1
2018 ^d	Unlimited	34,214	N/A	11,200	10,706	23.6
2019	Unlimited	34,632	N/A	11,792	10,699	23.0

^a Youth hunt data included.

^b Permits issued to archery hunters were not included to facilitate comparison to previous years.

^c Total hunter success (registered harvest divided by all permits issued). Success rates not adjusted for non-participation or un-registered harvest.

^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. Regular (non-youth) firearm permits issued, registered harvest, and hunter success during the 2019 spring wild turkey season in Minnesota.

Permit area	Regular permits issued ^a	Total registered harvest ^b	Regular gun harvest ^c	Regular gun success rates (%) ^d
501	5,927	2,237	1,747	29.5
502	533	149	110	20.6
503	2,801	1,139	828	29.6
504	623	253	160	25.7
505	1,859	749	571	30.7
506	895	332	191	21.3
507	6,036	2,821	1,792	29.7
508	3,546	1,623	1,013	28.6
509	354	250	115	32.5
510	1,801	1,060	573	31.8
511	123	48	24	19.5
512	102	38	19	18.6
TOTAL	24,600	10,699	7,143	29.0

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

^b Total harvest for all license types.

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

^d Regular gun success (regular gun harvest divided by regular permits issued). Success rates not adjusted for non-participation or un-registered harvest.

Table 6. Permits available and issued by license type and time period for the spring 2019 wild turkey season in Minnesota.

Time period	Permits available	General lottery ^a permits issued	Surplus permits issued	Youth permits issued	Archery permits issued
A: 17-23 April	7,010	5,117	781	Not applicable – Youth and archery permits were valid during all time periods.	
B: 24-30 April	7,010	3,801	1,997		
C: 1-7 May	Unlimited	6	7,241		
D: 8-14 May	Unlimited	9	2,984		
E: 15-21 May	Unlimited	2	1,860		
F: 22-31 May	Unlimited	1	801 ^b		
Total	Unlimited	8,936	15,664	10,032	11,792

^a Includes landowner and military permits.

^b Number of surplus licenses sold for this time period. Actual number of hunters is 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 2019 wild turkey season in Minnesota.

Time period	Total harvest	Harvest (%)
A	3,608	33.7
B	2,436	22.8
C	2,306	21.6
D	897	8.4
E	537	5.0
F	915	8.6
Total	10,699	100

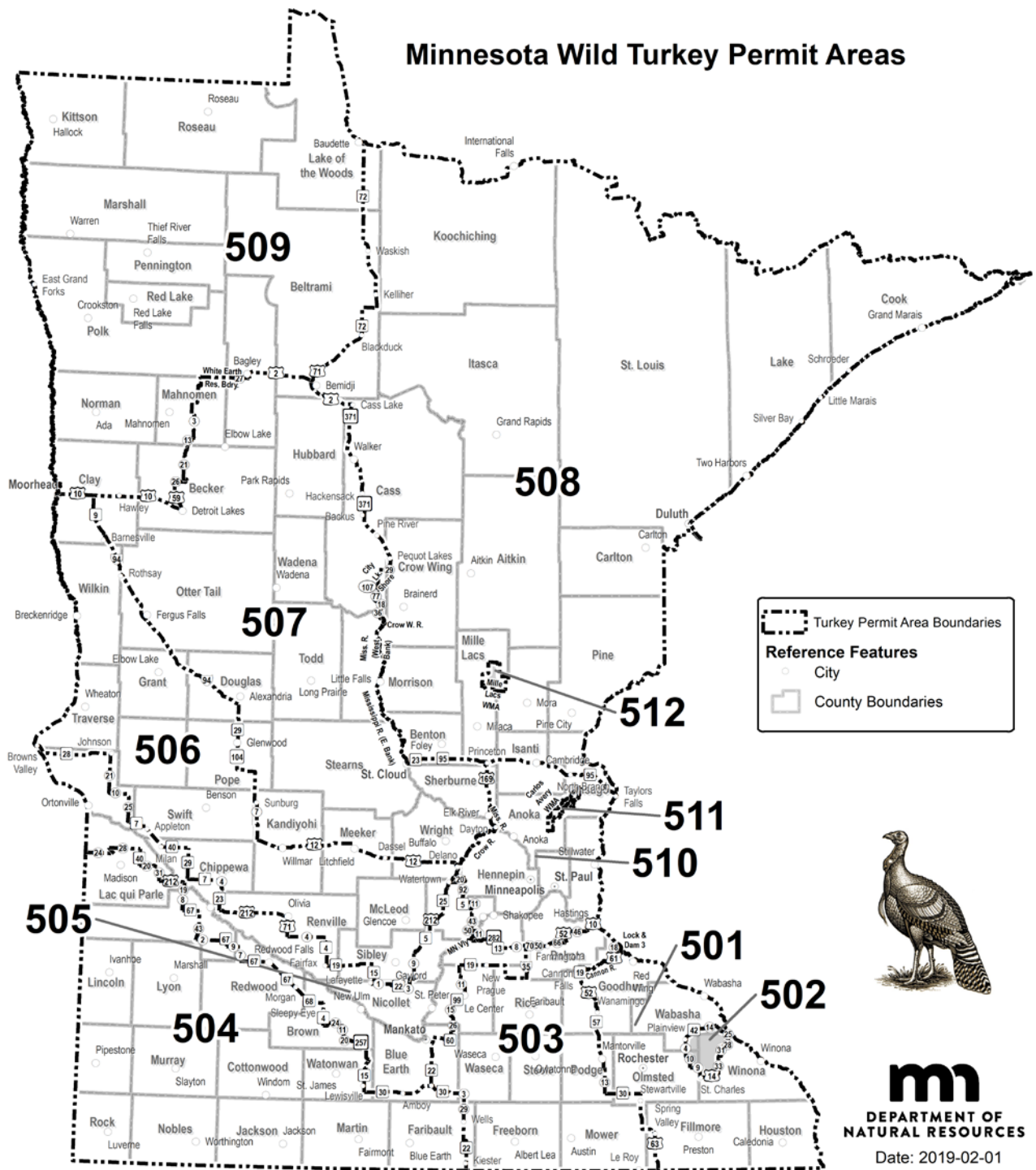


Figure 1. Permit areas open for hunting, fall 2018 and spring 2019 wild turkey seasons in Minnesota.

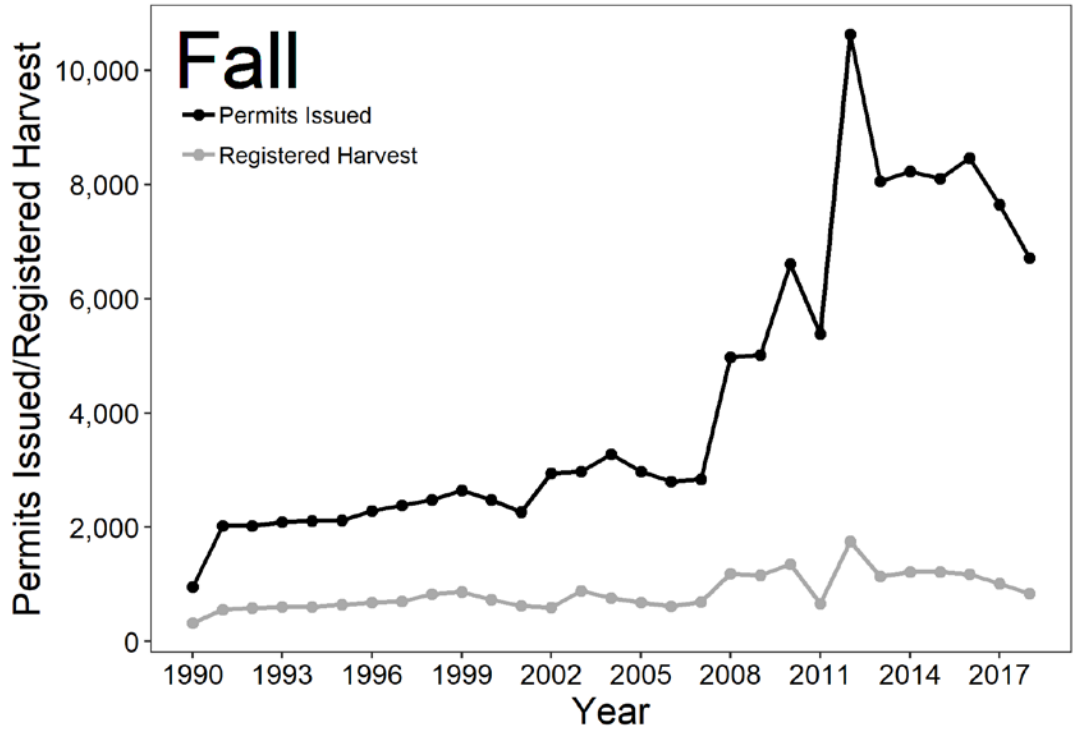


Figure 2. Permits issued and registered harvest for fall wild turkey seasons in Minnesota, 1990-2018.

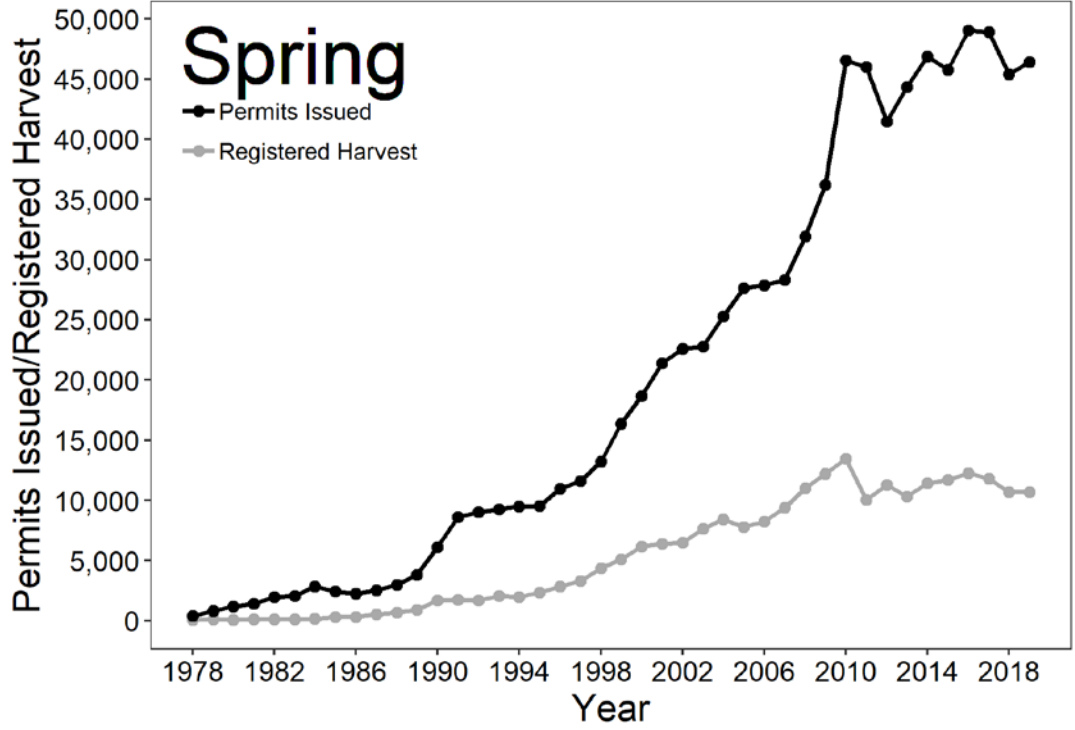


Figure 3. Permits issued and registered harvest for spring wild turkey seasons in Minnesota, 1978-2019.