



Minnesota's Wild Turkey Harvest – Fall 2019, Spring 2020

Tim Lyons
Farmland Wildlife Populations and Research Group
Minnesota Department of Natural Resources
Madelia, Minnesota
8 October 2020

Summary of Season Structure

The fall 2019 turkey season opened on September 28, 2019 and closed October 27, 2019. Though an unlimited number of permits were available, regulations limited hunters to the harvest of a single turkey (any sex) and required hunters to harvest their bird within a specific turkey permit area (TPA; Figure 1) declared at the time of purchase.

The spring 2020 hunting season was open April 14, 2020, through May 31, 2020. The season was comprised of 6 week-long time periods (A-F). General license hunters declared a TPA and were limited to a single time period during the first 5 weeks but unsuccessful hunters were able to hunt during the final (F) time period. Archery-only and youth licenses were valid during all time periods. All hunters were limited to a single bearded turkey (any sex). Beginning in 2020, the A and B lotteries were discontinued (with the exception of select Wildlife Management Area major units) and an unlimited number of general permits were available (C-F time periods already had unlimited permits available). Additionally, hunters had to declare a TPA at the time of purchase, but could harvest a bird within any TPA. Archery-only and youth licenses had already been valid in any permit area.

Fall 2019 Season

Permits Issued

The number of fall turkey hunters in 2019 (6,481) was very similar to the 2018 fall season (6,719, declining only 3.5% (Table 1). The number of fall turkey hunters remained below the 10-year average (7,634; -16%). The proportion of youth licenses (23%) remained similar to 2018 (21%).

Harvest

The fall 2019 turkey harvest (855) and hunter success (13.2%) increased slightly compared to the previous season (Table 1). Permit areas 501, 507, 508, and 510 comprised 77% of the total fall harvest with total permit sales, harvest, and success being greatest in area 507 (Table 2). The fall 2019 total harvest (855) remained below the 10-year average (1,150) though success was only slightly lower than

the 10-year average (15%). Long term, the number of permits has fallen since the quota system was ended in 2012, but still remain above the number issued following the permit area and quota increase enacted for the fall 2008 season (Figure 2). The total fall harvest has increased since the first fall season in 1990, but has fallen since its peak in 2012 (Figure 2).

Spring 2020 Season

Permits Issued

The number of permits issued across all license types increased in 2020 (Tables 3 and 4). The number of general permits issued increased by nearly 6,000 to 34,173 compared to 2019 and exceeded the 10-year average (32,555; Table 4). The increase in permits issued was greatest for youth permits, which more than doubled, while the number of archery permits increased by 25% (Table 4). There were a similar total number of permits issued for youth and archery in 2020 (14,292 and 14,729, respectively; Table 3). The total number of permits issued in 2020 set a new record high for participation since the modern turkey season began in 1978 (Figure 3). All hunters had to declare a permit area in 2020, but were no longer restricted to harvesting a bird in the declared area. General permits issued increased in all TPA's, but increases were smaller in the three TPA's (502, 511, 512) that still instituted a lottery during the A-C time periods (Table 5.)

Harvest

The 2020 spring turkey season set a new record high for total harvest for the modern turkey season (since 1978; Table 4, Figure 3), exceeding the previous high (2010 harvest) by 4%. Harvest increased among most TPA's, but the increase was greatest in TPA's 507, 506, and 510 (Table 5). Harvest increased among all permit types and only general permits saw a slight decrease in success (Table 3). The number of youth permits issued in 2020 nearly doubled and youth harvest increased by more than 1,000 turkeys to 2,850 (Table 3) compared to 2019 (1,835) and success increased to almost 20% (Table 3). Although archery permit sales increased by 25%, harvest also increased by a similar amount and the success rate remained nearly the same (Table 3).

The number of hunters and harvest for each time period changed dramatically in 2020. Most of the increase in the number of general permit holders in 2020 occurred during the A and B periods (Table 6). The termination of the A and B period lottery in 2020 likely contributed to some of this increase, though better weather and the increase in hunters due to the COVID-19 pandemic and "stay-at-home" Emergency Executive Order (Minnesota EO 20-20) concurrent with the spring season may account for the majority of this pattern. Prior to 2020, many permit areas held unsold surplus permits during these two periods in previous years. The shift in time period selection by general permit holders resulted in a similar shift in the timing of harvest. Harvest during the A period increased to 41.7 % of the total spring 2020 harvest (Table 6) compared to 33.7% in 2019. Total harvest and the proportion of total harvest also increased during the B and F seasons but were offset by declines in both variables during C, D, and E (Table 6).

Factors influencing spring season participation and harvest

Weather often has the greatest impact on spring turkey season participation and harvest. Long periods of deep snow can reduce overwinter survival of turkeys and spring snowstorms can lead to reductions in turkey activity and hunter participation. The winter across much of the turkey range in Minnesota was milder than the long-term average and the state was generally snow-free by the start of the spring turkey season. This likely contributed to greater hunter success and participation in spring 2020 compared to previous years. Regulation changes which allowed unlimited general permits during the A and B time periods may have led to greater hunter participation as well. Still, the greatest factor underlying the large increase in hunter participation were likely the COVID-19 safety orders. Closures of businesses, schools, and a state-wide “stay-at-home” order may have given many previous and new hunters more personal time to harvest a bird.

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, 2010-2019.

Year	Permits available	Applicants	Permits issued	Registered harvest	Hunter success (%) ^a
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
2019	Unlimited	N/A	6,481	855	13.2

^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 and hunter success rates (non-youth licenses), total registered harvest, and registered harvest by sex during the 2019 fall wild turkey season in Minnesota.

Permit area	General permits issued ^a	General permit harvest ^b	General permit success rates (%) ^b	Total registered harvest ^c	Toms ^c	Jakes ^c	Hens ^c
501	703	89	12.7	100	43	14	43
502	79	13	16.5	13	4	2	7
503	468	59	12.6	75	25	9	41
504	119	13	10.9	18	5	4	9
505	249	36	14.5	41	12	6	23
506	184	25	13.6	27	10	3	14
507	1252	191	15.3	237	77	42	118
508	1164	159	13.7	193	73	31	89
509	168	38	22.6	59	19	11	29
510	502	72	14.3	88	37	13	38
511	58	1	1.7	1	0	0	1
512	30	2	6.7	3	1	0	2
TOTAL	4,976	698	12.9	855	306	135	414

^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 included in general permits issued.

^b All firearm and archery harvest, excluding youth.

^c Total harvest for all license types.

Table 3. Total permits issued, harvest, and success rate by permit type during the spring 2020 wild turkey season in Minnesota.

	Total permits issued	Harvest	Success (%) ^a
General	34,173	9,007	26.4
Youth	14,292	2,850	19.9
Archery	14,729	2,139	14.5
Total	63,194	13,996	22.1

^a Success rates not adjusted for non-participation.

Table 4. Permits issued, registered harvest, and hunter success rates for the ten most recent spring wild turkey hunting seasons in Minnesota, 2011-2020.

Year	General permits issued	Youth permits issued	Archery permits issued	Registered harvest ^a	Success (%) ^b
2011 ^c	34,835	8,828	2,246	10,055	21.9
2012 ^c	30,238	8,839	3,441	11,276	27.2
2013 ^c	35,202	5,965	4,014	10,321	23.3
2014 ^c	35,451	7,374	4,893	11,425	24.4
2015 ^c	34,554	7,042	5,046	11,694	25.6
2016 ^c	32,535	7,101	10,336	12,277	25.0
2017 ^c	31,605	6,984	11,237	11,803	24.1
2018 ^c	28,667	6,022	11,399	10,706	23.6
2019	28,295	6,169	11,794	10,699	23.0
2020	34,173	14,292	14,729	13,996	22.1

^a Includes all license types.

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

^c 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 by license type and registered harvest within each TPA during the 2020 spring wild turkey season in Minnesota^a.

Permit area	Archery permits declared	General permits declared	Youth permits declared	Total registered harvest
501	2,130	6,714	2,227	2,363
502	229	549	167	185
503	1,373	3,850	1,416	1,424
504	486	907	412	371
505	747	2,099	696	712
506	625	1,394	696	532
507	3,911	8,615	4,347	3,960
508	2,571	6,200	2,578	2,426
509	468	812	516	498
510	1,827	2,676	1,023	1,350
511	216	199	111	77
512	146	158	103	39

^a Beginning in 2020, all hunters declared but were not restricted to harvesting a turkey in their declared TPA.

Table 6. Permits available and issued by license type and time period for the spring 2020 wild turkey season in Minnesota.

Time period	Archery permits issued ^a	Youth permits issued ^a	General permits issued	Registered harvest ^b	Percent of total harvest ^b
Any	14,729	14,292			
A			12,395	5,833	41.7
B			10,398	3,504	25.0
C			6,112	1,919	13.7
D			2,520	830	5.9
E			1,900	529	3.8
F			848	1,381	9.9

^a Archery and youth permits were valid during any time period.

^b Includes harvest from all license types.

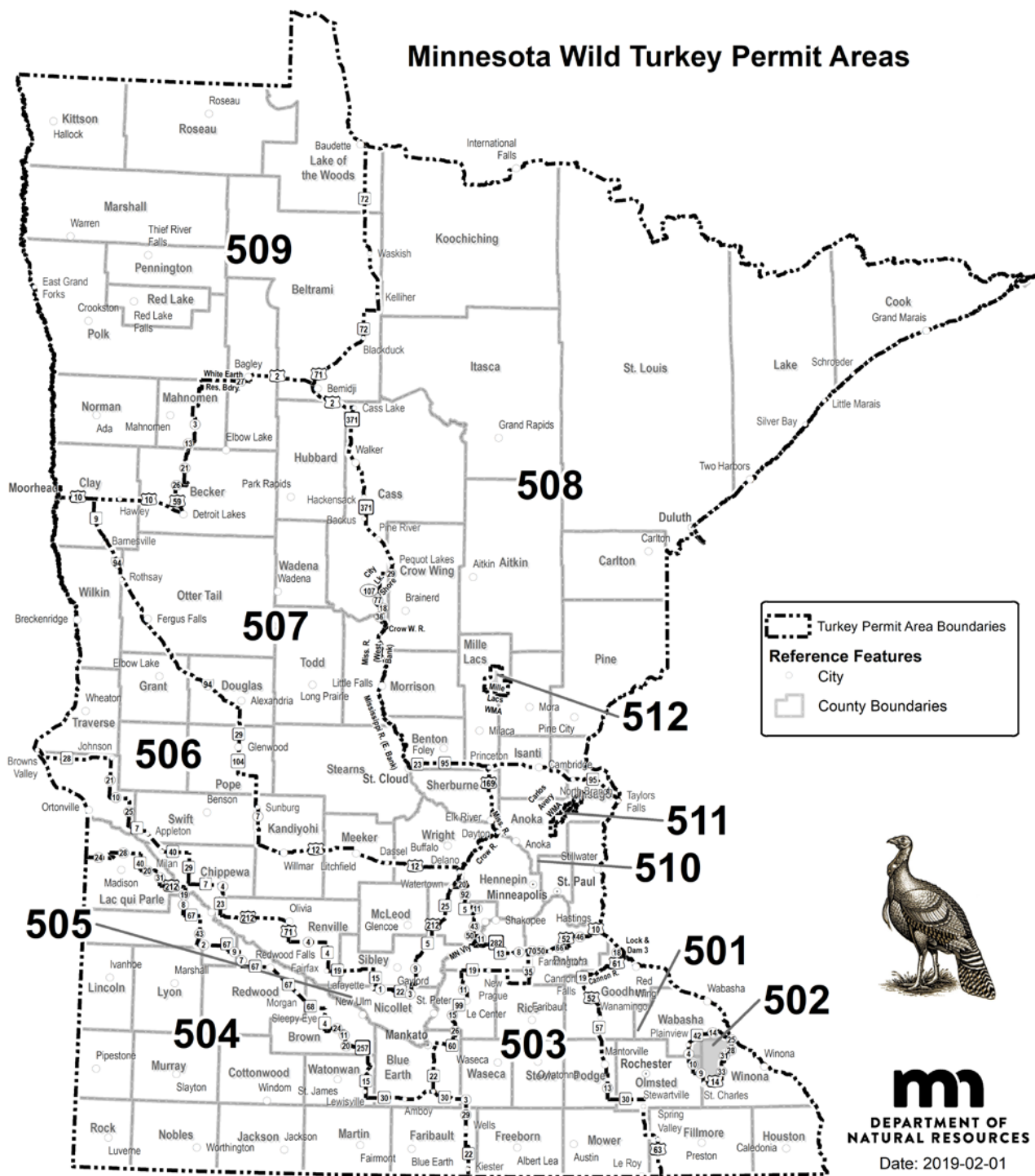


Figure 1. Permit areas open for hunting, fall 2019 and spring 2020 wild turkey seasons in Minnesota.

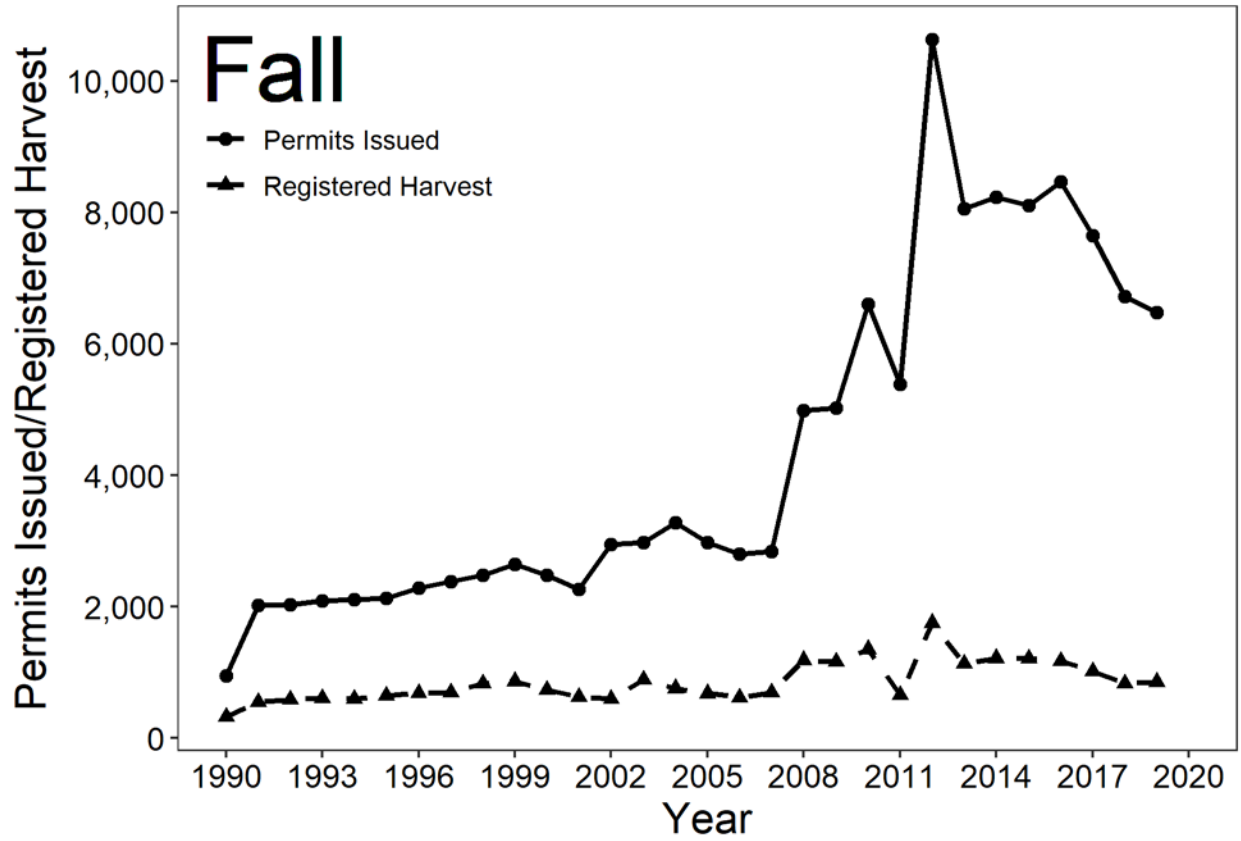


Figure 2. Permits issued and registered harvest for fall wild turkey seasons in Minnesota, 1990-2019.

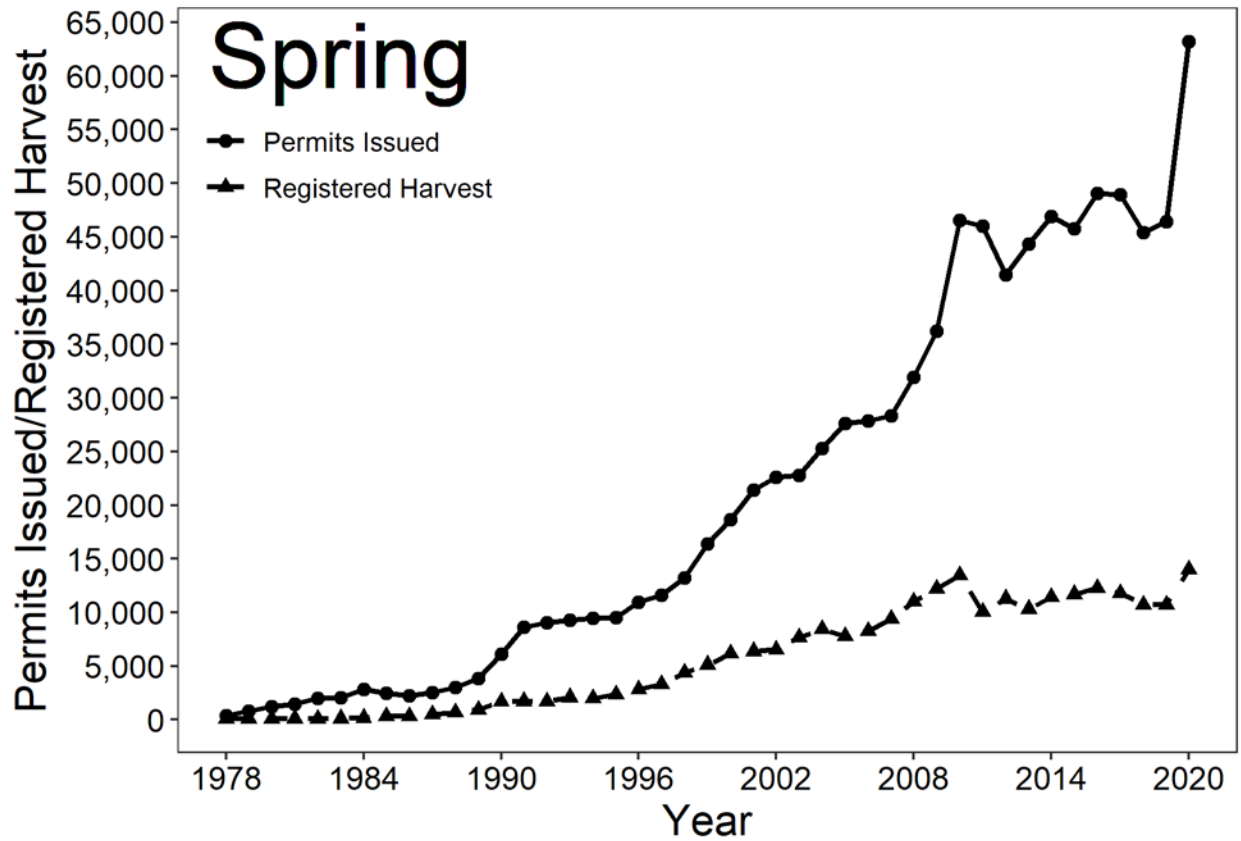


Figure 3. Permits issued and registered harvest for spring wild turkey seasons in Minnesota, 1978-2020.