Annual Wild Turkey Status Report 2024



Roger Shields
Wild Turkey Management Program Coordinator
Wildlife and Forestry Division

TWRA Wildlife Technical Report 25-01, January 2025





Equal opportunity to participate in and benefit from programs of the Tennessee Wildlife Resources Agency is available to all persons without regard to their race, color, national origin, sex, age, disability, or military service. TWRA is also an equal opportunity/equal access employer. Questions should be directed to TWRA, Human Resources Office, 5107 Edmondson Pike, Nashville, TN 37211, (615) 781-6594 (TDD 781-6691), or to the U.S. Fish and Wildlife Service, Office for Human Resources, 4401 N. Fairfax Dr., Arlington, VA 22203.

Annual Wild Turkey Status Report 2024

TENNESSEE WILDLIFE RESOURCES AGENCY

Roger Shields, Wild Turkey Management Program Coordinator

TWRA Wildlife Technical Report 25-01

Table of Contents

List of Tables	iii
List of Figures	iii
Turkey Management Units (TMUs)	1
Spring Turkey Season	1
Reported Harvest	1
Hunter Harvest Survey	3
Results	4
Fall Turkey Season	6
Statewide Summer Wild Turkey Survey	8
Results	10
Appendix A	16

List of Tables

Table 1. Estimated numbers of hunters and days afield for spring turkey seasons, 2020 - 2024	4
Table 2. Estimated numbers of adult spring turkey hunters, harvest by adult hunters, and harvest metrics by TWRA turkey management unit, 2024	5
Table 3. Reported fall turkey harvest by TWRA turkey management unit (inclusive of WMA	
harvests), 2018 - 2024	6
Table 4. Fall turkey harvest by WMA, 2024	6
Table 5. Number of Summer Wild Turkey Survey observations by county, 2024	9
Table 6. Summary of reproductive data from the Summer Wild Turkey Survey, 2024	11
Table 7. Historical statewide Summer Wild Turkey Survey data, 2003 - 2024	13
Table 8. Statewide average brood size by age class, 2003 - 2024	14
List of Figures	
Figure 1. Map of new TWRA turkey management units	1
Figure 2. Total reported harvest during spring turkey season, 2008 - 2024	2
Figure 3. Total reported spring turkey harvest by TWRA turkey management unit, 2019 - 2024	3
Figure 4. Perceptions of Tennessee turkey hunters in 2024 regarding how turkey populations in the areas they hunt have changed over time	5
Figure 5. Proportion of juvenile males in the fall gobbler harvest by TWRA turkey management unit, 2024	7
Figure 6. Number of observations of wild turkeys by agency staff (top map) and public observers (bottom map) by county during the Summer Wild Turkey Survey, 2024	10
Figure 7. Overall productivity (top graph) and brood size (bottom graph) with 95% confidence intervals bars by TWRA turkey management unit estimated from the Summer Wild Turkey Survey, 2024	
Figure 8. Statewide productivity estimates (poults per hen ratios) obtained from Summer Wild Turkey Survey data during the month of August, 2003 - 2024	13
Figure 9. Statewide wild turkey nests initiated per week based on backdating of staff and public pouls observations, 2024	

Turkey Management Units (TMUs)

Last year, TWRA staff began utilizing new, ecologically based management units for hunter surveys and other data collection processes for wild turkeys instead of the administrative regions for monitoring and reporting (Figure 1). The new units will allow long-term tracking of population trends as before but will allow management actions to differ between units as needed. For more information on the new units, view an excerpt from the October 13, 2023 Commission meeting where a brief overview of the new units was provided (visit https://www.youtube.com/watch?v=D4CiCGzr8so&list=PLrHYtWwg-24DOpHq4OFS9Hx9lgFbM6WY5&index=2 beginning at time mark 32:49 through 35:50).



Figure 1. Map of new TWRA turkey management units

Spring Turkey Season

Beginning spring of 2023, several regulation changes took effect for the spring turkey season in light of continued concern for declining turkey population numbers around the state. The statewide season bag limit was reduced, from three bearded turkeys to two, only one of which could be a juvenile bird (i.e., a jake). Additionally, the spring hunting season was delayed two weeks from its traditional start; hence, the general spring season in 2024 opened on April 13 and the Young Sportsman hunt occurred April 6-7.

Reported Harvest

Historically, turkey harvest had been monitored by the Tennessee Wildlife Resources Agency (TWRA) through mandatory hunter reporting, or checking, of harvested game. Starting from about 2010, physical check stations largely have been replaced by reporting options using the internet (GoOutdoorsTN.com) and smart-phone mobile applications (the "TWRA On the Go" app). Beginning the spring of 2020, big-game hunters in Tennessee are required to tag their harvest before moving it ("Tag Before You Drag") and then report it as previously required (i.e., by the end of the calendar day of harvest and before transferring the animal to another person or leaving the state). Checking a bird in the field at the time of harvest using the mobile app meets both the tagging and reporting requirement and nothing more is required of the hunter.

Based on reported harvest, the 2024 spring harvest of 31,647 was 5% below the 5-year average and 1% lower than the 2023 reported harvest (Figure 2). Similar to last year, harvest during the beginning of the season was extremely high and then fell steeply as the season progressed. Harvest during the 2024 two-day Young Sportsman hunt (1,833) was 8% higher than 2023 and 52% higher compared to the recent five-year average harvest of 1,205. Harvest on public lands and WMAs where harvest is tracked separately accounted for 7.5% of the total harvest with 2,368 birds reported, a 6% increase from last year, but essentially unchanged (1% higher) from the previous 5-year average of 2,335. Nonresident hunters reported harvesting 2,414 and 496 turkeys on private and public lands respectively during the season, accounting for 8% and 21% of the respective total harvests.

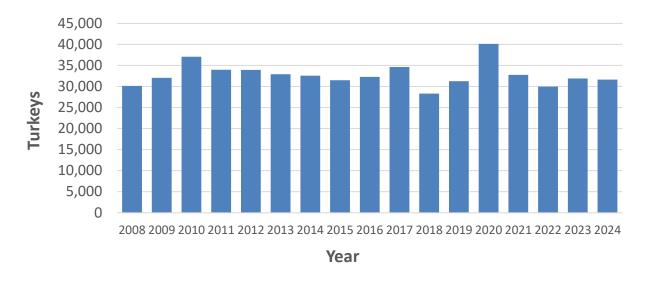


Figure 2. Total reported harvest during spring turkey season, 2008 - 2024.

Under the new turkey management units (TMUs), the Central unit, given its size and historic turkey densities, has by far the greatest reported harvest, followed distantly by the Northeast unit (Figure 3). Regionally, the trend in harvest compared to the previous 5-year average followed a west to east pattern, with the West unit marking a 39% increase over the previous 5 years, the Midwest unit a 3% increase, the Central a 2% decrease, and the Northeast and Southeast seeing 16% and 11% decreases, respectively.

During the 2024 season, 25,479 hunters reported harvesting at least 1 turkey, which is 12% greater than the 5-year average of successful hunters (22,766). The distribution of harvest changed quite a bit from previous years with the decrease in bag limit. Prior to last year's bag limit reduction (from 3 to 2 birds), generally about 64% of successful hunters reported harvesting 1 bird; 22% reported 2 birds; and 13% of successful hunters took home 3 or more birds. With the change in bag limits last spring, the number of hunters reporting 1 bird during the 2024 spring season shifted to 76% of successful hunters with 24% reporting 2. Of harvested gobblers, 92% were adult males and just 8% were jakes based on self-reported harvest figures. A combination again of strong recruitment from two years ago (2022 hatch year), good weather early in the season, and the regulation changes in place this year likely heavily influenced the positive gains in the number of successful hunters and proportion of adult birds harvested.

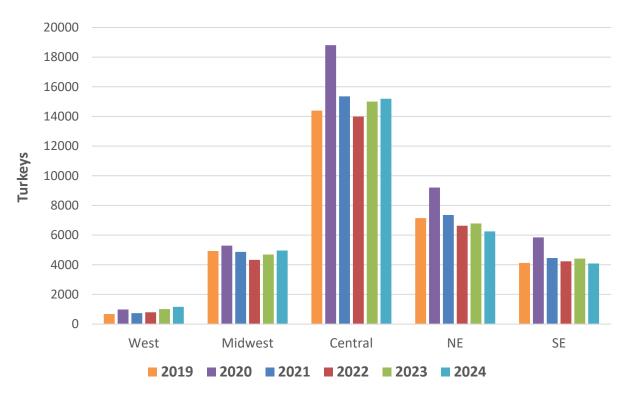


Figure 3. Total reported spring turkey harvest by TWRA turkey management unit, 2019 - 2024.

Hunter Harvest Survey

Beginning with the 2020 spring turkey season, TWRA has contracted with the University of Tennessee to conduct an annual harvest survey of wild turkey hunters. The primary objective of this turkey hunter survey is to estimate hunter numbers, hunting effort, and harvest success at the statewide level as well as by TMU. Another objective is to understand hunter satisfaction and their opinions regarding various topics related to wild turkeys. One of the strengths of this survey is it uses standardized survey protocols and a statistically valid sample representative of the hunter population that allows results to be estimated with confidence intervals. So, even though estimates generated from the survey may differ markedly from reported harvest numbers, one can assess the level of confidence associated with these estimates, an important feature for tracking population trends over time. Further, the survey guarantees respondent anonymity, which bolsters honest reporting. This additional, statistically-valid information on hunting effort and success provides for better monitoring of the turkey population and harvest trends over time than simply harvest numbers alone.

The sampling frame used for this survey consisted of individuals ≥18 years of age who had a valid license to hunt turkeys in Tennessee during the spring turkey season. We also included individuals who reported harvesting a turkey during the season to account for landowners who hunted their own property and were therefore exempt from license requirements. We used a stratified random sampling approach to ensure all license types were represented and we assigned participants to one of six strata (Annual, Disability, Lifetime, Non-resident, Permanent Senior, and Reported Harvest) based on expected

differences in response rate and a general similarity in hunting behavior within license types. To collect data on turkeys harvested by youth during the turkey season, we asked the adult survey participants a series of questions regarding turkey harvest by youth they guided or mentored.

We used a mixed-mode approach to survey resident and non-resident spring turkey hunters in Tennessee. Individuals who had an email address on file were first invited to complete an online version of the survey. Three reminder emails were sent over a 2-week period. We then sent a hard copy of the survey with a business reply envelope to those who did not respond to the email invitation and those who did not have an email address on file. After a week, a final survey packet was mailed to participants. For additional details on survey methodology and analysis, as well as complete survey results, please refer to the full survey technical report available online at:

https://www.tn.gov/content/tn/twra/hunting/big-game/turkey.html.

Results

During the spring 2024 turkey season, an estimated $126,032 \pm 10,476$ hunters (95,632 $\pm 5,984$ adults and 30,400 $\pm 4,492$ youth) statewide participated in turkey hunting and spent 787,618 $\pm 58,708$ days afield (Table 1). This was a substantial but not significant increase in terms of number of hunters and total days afield, resulting in a slight, nonsignificant decrease in average days afield per adult hunter (2023: 7.83 ± 0.45 vs 2024: 7.54 ± 0.47). Adult and youth hunters combined harvested an estimated 63,856 turkeys (58,218 $\pm 6,646$ adult gobblers, $5,481 \pm 2,046$ jakes, and 157 ± 187 bearded hens). The statewide harvest rate (the number of birds harvested per day of hunting) averaged 0.15 ± 0.02 for adult hunters and 0.23 ± 0.04 birds per day for youth hunters, which was essentially no change for adult hunters and youth hunters compared to 2023 (0.15 ± 0.02 and 0.19 ± 0.04 , for adult and youth hunters respectively). Overall, for license holders, 51% of adult hunters and 42% of youth hunters harvested at least one turkey during the 2024 spring turkey season.

Table 1. Estimated numbers of hunters and days afield for spring turkey seasons, 2020 - 2024.

	Total Hunters	95% CL	Total Days	95% CL
Spring 2020	90,015	5,659	728,558	47,737
Spring 2021	91,247	8,384	682,302	39,457
Spring 2022	95,905	6,425	724,726	43,688
Spring 2023	111,975	8,539	724,364	52,067
Spring 2024	126,032	10,476	787,618	58,708

Most Tennessee hunters pursued turkeys to some degree on private land. From survey responses regarding where people hunt, an estimated 71,090 adults hunted only private land with another estimated 11,527 hunting both private and public land, whereas only 10,371 adult hunters exclusively hunted public land. Adult hunters who hunted both public and private land spent 12.1 \pm 1.5 days afield on average, significantly greater than the 7.0 \pm 0.5 and 6.4 \pm 1.7 days spent by hunters on exclusively private and public lands, respectively. Harvest rate also differed significantly by land type. The harvest rate for those who hunted exclusively private land was 0.17 \pm 0.02 birds per day, significantly above the harvest rate of those who hunted on both public and private land (0.07 \pm 0.02) as well as for public landonly hunters (0.07 \pm 0.03).

Regional differences occurred in harvest results. Significantly more adults hunted in the Central unit than any other unit, and subsequently, significantly more birds were harvested by adult hunters in the Central unit than any other unit (Table 2). The estimated harvest rate was greatest in the Central unit $(0.18 \pm 0.02 \text{ birds/day})$ and differed significantly from that of the West and Northeast units, which had the lowest rates $(0.11 \pm 0.02; \text{Table 2})$. Interestingly, the percentage of the gobbler harvest comprised of juvenile birds was lowest in the West (4.7%) and Central (4.2%) units and highest in the Northeast unit (11.1%; Table 2).

Table 2. Estimated numbers of adult spring turkey hunters, harvest by adult hunters, and harvest metrics by TWRA turkey management unit, 2024.

TMU	Adult Hunters	95% CL	Total Harvest	95% CL	Harvest Rate	95% CL	% Jakes
West	4,913	1,476	2,365	915	0.14	0.06	4.7
Midwest	15,433	2,944	8,123	1,727	0.11	0.02	5.6
Central	40,827	4,187	24,185	3,269	0.18	0.02	4.2
Northeast	23,173	3,220	9,884	2,197	0.11	0.02	11.1
Southeast	16,035	2,993	7,153	1,697	0.13	0.06	5.7

From the 2024 survey, we obtained information on hunter opinions about turkey populations in the areas they hunt. Over half (54%) of the respondents perceived the turkey population in areas they hunt to be stable or increasing (Figure 4), up considerably from a few years ago when nearly two-thirds (60%-64%) of respondents reported observing declines. A relatively greater proportion of hunters in the West unit reported stable to increasing turkey populations, whereas hunters in the Northeast unit reported relatively greater incidents of declining populations compared to hunters in the other units (Figure 4).

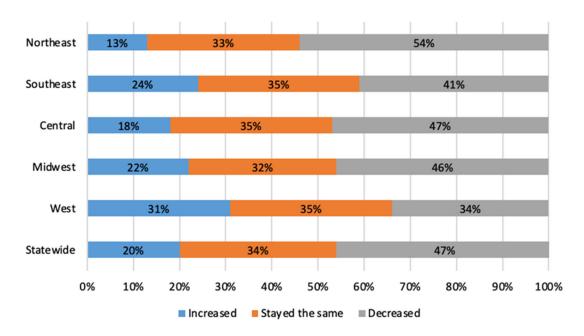


Figure 4. Perceptions of Tennessee turkey hunters in 2024 regarding how turkey populations in the areas they hunt have changed over time.

Fall Turkey Season

In 2018, the Tennessee Fish and Wildlife Commission eliminated either-sex fall hunting in favor of bearded turkeys only during the fall beginning with the 2018 season. Consequently, subsequent fall harvest numbers are not readily comparable to earlier harvests. It also should be noted that beginning with this 2024 fall season, the fall season bag limit was changed from 1 bearded turkey per county to 1 male turkey per hunter statewide.

The total reported 2024 fall season harvest was 257 birds, a decrease of 13% from the 2023 fall season harvest of 297 birds and a decrease of 22% from the previous 5-year average (329). Regionally, the Midwest and the Northeast units have seen the greatest decrease in fall harvest (35% and 45%, respectively), although the Central and Northeast units still lead in total harvest (Table 3). Harvest in the fall on WMAs was minimal, with just 13 birds reported harvested on 5 WMAs and other public lands (Table 4). Juvenile males (i.e., "jakes") accounted for roughly 5% of the statewide fall gobbler harvest in 2024 based on self-reported harvest figures. Jakes comprised the highest proportion of the harvest in the Midwest unit, representing 13% of the gobbler harvest (Figure 5).

Table 3. Reported fall turkey harvest by TWRA turkey management unit (inclusive of WMA harvests), 2018-2024.

	Total Reported Harvest										
Unit	2018	2018 2019 2020 2021 2022 2023 202									
West	0	0	0	0	1	1	1				
Midwest	34	33	46	31	41	27	23				
Central	114	143	120	84	176	117	116				
Northeast	86	125	153	76	119	95	63				
Southeast	43	59	37	35	67	57	54				
Grand Total	277	360	356	226	404	297	257				

Table 4. Fall turkey harvest by WMA, 2024.

WMA	TMU	Harvest
Catoosa WMA	Northeast	1
Cross Creeks NWR	Central	1
Old Hickory, Lock 5 Refuge	Central	1
Percy Priest WMA	Central	2
Yanahli WMA	Central	2
Other Public Lands	na	6
Grand total		13

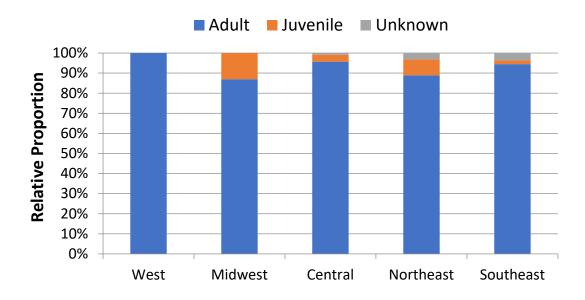


Figure 5. Proportion of juvenile males in the fall gobbler harvest by TWRA turkey management unit, 2024.

Statewide Summer Wild Turkey Survey

TWRA maintains records of sightings of wild turkeys to provide supplemental data on population trends. Each year since the 1980s, we conduct a wild turkey summer observational survey. These sightings provide us estimates for monitoring trends in nesting success, trends in brood survival, trends in annual productivity, peak hatching dates on turkey brood range, and carry-over of males from the spring hunting season.

The main purpose of the summer survey is to obtain wild turkey production and population data which can be compared with previous year's data in evaluation of population trends. Data is collected from June to August, but historically only August data has been used to obtain most of the estimates, including an overall poult to hen ratio estimate. The reasoning behind this is based on the fact that if a poult makes it into the month of August, survival odds are much greater.

Metrics estimated from data collected during the survey provide indices of productivity and population status. The percentage of hens observed with poults is an estimate of annual nesting success. The number of poults accompanying hens observed with poults (or poults per brood) is an indication of poult survival, as is brood attrition by age-class. The poults per hen ratio is a measure of overall productivity. Back-dating based on age class of poults observed generates an estimated nest chronology and an indication of when peak nesting for the year occurred. Lastly, the ratio of gobblers to hens provides an estimate of gobbler carry-over from the spring hunting season. Large harvests in the spring will typically lead to lower numbers of gobblers observed in the summer relative to hens. In broad terms, estimates <0.50 gobblers per hen indicate that excessive gobbler harvests may be occurring if quality spring harvest (i.e., abundant older-aged gobblers) is a management goal, while estimates approaching 1.0 gobbler per hen indicate there may be an additional harvestable surplus of gobblers.

Historically the summer survey has been conducted only by agency staff and other natural resource professionals who record observations of wild turkeys made incidental to regular field activities from June through the end of August (see Appendix A for survey form). Because of poor coverage of the state due to limited numbers of staff and cooperators in some counties, beginning in 2022, we invited the public to take part in the survey. These citizen scientists were able to report turkey observations using an electronic survey form via the TWRA website or with a mobile device using the Survey 123 app. Each observer was asked to record the date and county of the observation, the number of adult individuals by sex, the number and age class of poults, and whether the observation was made on private or public lands. Accurate counts are important; if more than one hen is present with a group of poults, the observer ascertains if there is more than one age group present. The observer also notes if vegetation inhibited an accurate poult count and whether they had likely seen this group of turkeys before.

Traditionally, the poults per hen and poults per brood ratios were calculated simply by dividing the total number of poults observed by the total number of observed hens (or hens accompanied by poults for poults per brood). However, this approach does not provide any measure of confidence for the ratio estimates. Consequently, data collected since 2003 has been reanalyzed using a new approach, one used by other states sharing data under a standardized survey format. The new approach calculates poults per hen (or poults per brood) for each individual observation; then we calculate a mean with standard deviation for all the respective observations. It should be noted that this new approach tends to produce slightly higher estimates than the traditional methodology (~0.5 pph).

Table 5. Number of Summer Wild Turkey Survey observations by county, 2024.

County	TMU	Staff Count	Public Count	County	TMU	Staff Count	Public Count
Anderson	Northeast	2	15	Lauderdale	West	1	22
Bedford	Central	8	12	Lawrence	Central	6	6
Benton	Central	57	26	Lewis	Central	9	10
Bledsoe	Southeast		9	Lincoln	Central	45	5
Blount	Southeast	4	61	Loudon	Southeast	18	
Bradley	Southeast		33	Macon	Central	3	
Campbell	Northeast	57	11	Madison	Midwest	11	73
Cannon	Central	12	5	Marion	Southeast	151	13
Carroll	Midwest	20	7	Marshall	Central	23	70
Carter	Northeast	9	5	Maury	Central	61	52
Cheatham	Central	24	44	McMinn	Southeast	49	3
Chester	Midwest	3	13	McNairy	Midwest	1	2
Claiborne	Northeast	12	3	Meigs	Southeast	8	2
Clay	Central	16	2	Monroe	Southeast	15	38
Cocke	Northeast	11	5	Montgomery	Central	128	139
Coffee	Central	7	14	Moore	Central	6	2
Crockett	West	1	1	Morgan	Northeast	9	5
Cumberland	Northeast	57	25	Obion	Midwest	13	5
Davidson	Central	10	166	Overton	Northeast	20	
Decatur	Central	3	2	Perry	Central	5	2
Dekalb	Central	11	20	Pickett	Northeast		5
Dickson	Central	4	50	Polk	Southeast	20	1
Dyer	West	21	33	Putnam	Northeast	18	3
Fayette	Midwest	1	12	Rhea	Southeast	16	4
Fentress	Northeast	10	1	Roane	Southeast	51	9
Franklin	Central	12	9	Robertson	Central	56	1
Gibson	Midwest	24	2	Rutherford	Central	103	34
Giles	Central	16	37	Scott	Northeast	4	19
Grainger	Northeast	3	12	Sequatchie	Southeast	46	13
Greene	Northeast	12	34	Sevier	Southeast	28	3
Grundy	Southeast		21	Shelby	West	3	28
Hamblen	Northeast	5	7	Smith	Central	16	2
Hamilton	Southeast	2	130	Stewart	Central	25	40
Hancock	Northeast	9		Sullivan	Northeast	24	1
Hardeman	Midwest	1	1	Sumner	Central	66	
Hardin	Midwest	18	11	Tipton	West	3	9
Hawkins	Northeast	1	21	Trousdale	Central	10	3
Haywood	West	1	2	Unicoi	Northeast	9	7
Henderson	Midwest	_	12	Union	Northeast	16	26
Henry	Midwest	6	18	Van Buren	Southeast	2	16
Hickman	Central	43	65	Warren	Central	9	14
Houston	Central	15	5	Washington	Northeast	16	16
Humphreys	Central	12	9	Wayne	Central	7	2
Jackson	Central	22	15	Weakley	Midwest	5	12
Jefferson	Northeast	4	13	White	Northeast	26	44
Johnson	Northeast	3	1	Williamson	Central	134	13
Knox	Southeast	1	106	Wilson	Central	88	11
Lake	West	1	100	VVIISUII	Grand Total	2457	1328

Results

Observations were recorded during the 2024 summer survey by 152 different staff and cooperator observers and 1,418 unique public observers. Agency staff and cooperators recorded 1,328 observations and survey participants from the public recorded 2,457 observations. As a result of public participation, all 95 counties were represented in the survey even though staff observations occurred in only 85 total counties. All the same, not all counties were represented equally (Table 5, Figure 6). To improve reliability of the estimates generated by these surveys, it would be preferable to obtain a more balanced coverage of the state (i.e., all counties with >30 total observations).

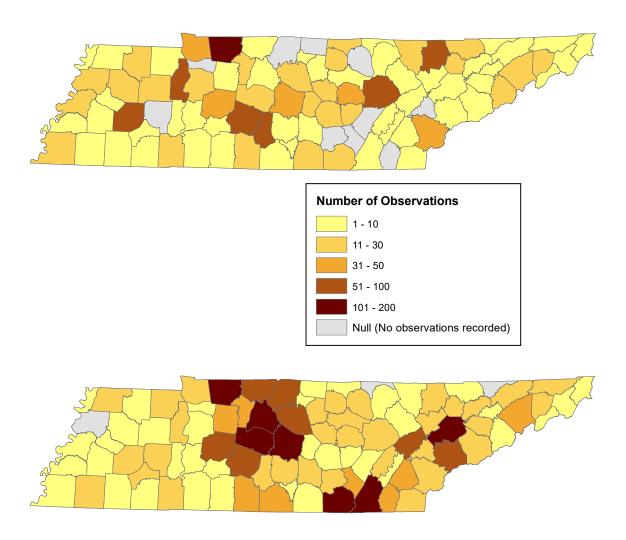


Figure 6. Number of observations of wild turkeys by agency staff (top map) and public observers (bottom map) by county during the Summer Wild Turkey Survey, 2024.

Overall, survey metrics obtained from public observer data were lower but similar to those obtained by staff (Table 6, Figure 7). In general, the poults per hen index was similar at around 2.5 pph for most units except the southeast, which was well below two poults per hen (1.82). Brood size tended to increase from west to east Tennessee, with the exception again of the southeast unit which had the lowest estimate of brood size at <3.0 (Table 6, Figure 7). Much of central and southeast Tennessee experienced the hatch of brood XIX 13-year periodical cicadas in spring of 2024. Analysis comparing productivity between counties that were and were not in the cicada distribution revealed no increase in successful reproduction because of the cicadas (counties with: 2.3 pph/3.5 ppb; counties without: 2.5 pph/3.7 ppb). Next year, brood XIV 17-year cicadas are expected to hatch across most of Tennessee. Hopefully the 2025 cicada hatch will lead to significantly better reproduction; it appears to have during the previous brood XIV hatch that took place in 2008 and led to higher harvest two years later.

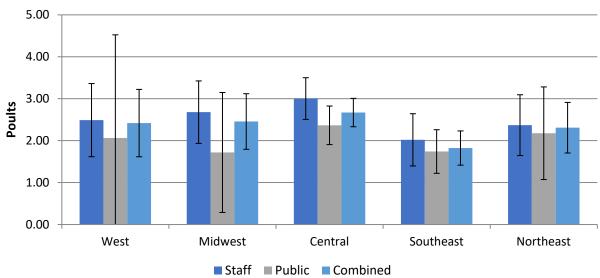
Long-term August poult to hen ratios show a fairly steady decline through 2016, with stable or slightly increasing indices thereafter (Table 7, Figure 8). The 2024 results (2.4 ± 0.2 poults per hen, based on the new calculation methodology) equaled the previous 5-year average (2.4 ± 0.3 , using comparable data calculations). Broods averaged 3.6 ± 0.3 poults (based on new methodology), the same as the previous 5-year average (3.6 ± 0.3) (Table 8). The proportion of hens with poults has steadily declined over the years of data collection, from >75% in the early 2000s to <60% in the mid-2010s. This year, 69% of hens were observed with poults, up ten percentage points from last year. All told, the recent estimates of productivity suggest a population undergoing slight growth after a period of decline. By and large, the productivity trends of lower—but somewhat stable—measures observed over the past 5-10 years may be indicative of a more stable population with annual variation around a point of lower, long-term average productivity.

Table 6. Summary of reproductive data from the Summer Wild Turkey Survey a, 2024.

-							
	Total					Total	Gobbler
	Turkeys	Total Hens	% of Hens	Poults per	Poults per	Poults	to Hen
	Reported	Reported	w/ Poults	Hen Ratio	Brood	Reported	Ratio
Staff Observer	·s						
West	177	46	84.8%	2.49	3.11	116	0.18
Midwest	420	108	74.1%	2.68	3.60	237	0.78
Central	1,177	313	74.1%	3.00	3.88	717	0.45
Southeast	242	67	80.6%	2.02	2.40	129	0.46
Northeast	396	125	60.8%	2.37	3.93	234	0.34
Statewide	2,412	659	73.0%	2.68	3.64	1,433	0.45
Public Observe	ers						
West	41	15	66.7%	2.06	3.10	26	0.23
Midwest	91	34	67.6%	1.72	3.19	48	0.42
Central	1,156	343	68.5%	2.36	3.45	647	0.44
Southeast	480	134	55.2%	1.74	3.31	225	0.74
Northeast	220	70	54.3%	2.18	4.21	109	0.47
Statewide	1,988	596	63.8%	2.14	3.48	1,055	0.52

^a All estimates are from August observations only, except the Gobbler to Hen ratio, which is calculated from all observations during the June - August survey period.

Poults/Hen



Brood Size

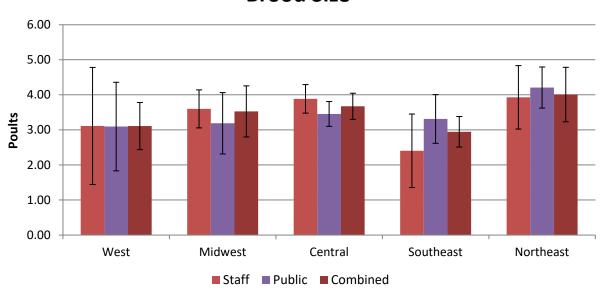


Figure 7. Overall productivity (top graph) and brood size (bottom graph) with 95% confidence interval bars by TWRA turkey management unit estimated from the Summer Wild Turkey Survey, 2024.

Table 7. Historical statewide Summer Wild Turkey Survey data, 2003 - 2024.

	Total Turkeys	Total Hens	% of Hens	Poults per	Poults per	Total # of
Year	Reported	Reported	With Poults	Hen Ratio	Brood	Poults
2003	2,057	521	77.0	3.2	4.1	1,353
2004	2,898	644	84.0	3.7	4.4	2,054
2005	1,755	441	79.4	3.2	3.9	1,058
2006	1,852	426	77.2	3.3	4.1	1,232
2007	1,935	507	77.5	2.9	3.6	1,213
2008	2,065	501	74.7	3.4	4.3	1,360
2009	1,396	372	68.5	3.0	4.1	949
2010	1,865	525	68.4	2.8	4.0	1,221
2011	3,624	927	73.8	3.0	4.1	2,367
2012	2,172	577	76.8	3.1	3.9	1,369
2013	2,714	741	53.7	2.8	4.5	1,650
2014	2,362	705	55.0	2.6	4.1	1,457
2015	2,786	757	58.7	2.6	4.1	1,700
2016	3,382	1,147	56.1	2.0	3.3	1,747
2017	2,077	710	64.9	2.0	2.9	1,044
2018	2,166	607	69.5	2.6	3.6	1,257
2019	2,080	640	70.0	2.4	3.5	1,166
2020	1,340	470	56.8	1.9	3.2	664
2021	2,820	789	71.4	2.8	3.7	1,754
2022	2,536	660	61.5	2.8	4.0	1,443
2023	5,524	1,789	58.9	2.1	3.3	2,777
2024	4,400	1,255	68.6	2.4	3.6	2,488
Average	2,537	714	68.3	2.8	3.8	1,515

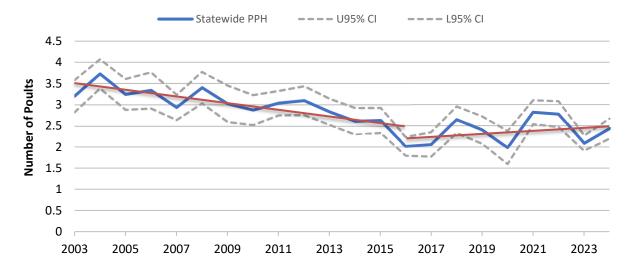


Figure 8. Statewide productivity estimates (poults per hen ratios) obtained from Summer Wild Turkey Survey data during the month of August, 2003 - 2024.

Table 8. Statewide average brood size by age class, 2003 - 2024.

		Poult Age Class ^a	
Year	1	2	3
2003	6.6	4.2	5.2
2004	7.4	6.4	5.4
2005	4.8	5.6	5.1
2006	6.4	5.0	4.6
2007	7.3	5.3	4.5
2008	6.3	6.0	4.7
2009	6.8	5.6	5.0
2010	6.6	4.8	5.0
2011	5.3	6.1	5.5
2012	5.1	6.3	5.9
2013	5.8	4.6	4.2
2014	3.7	3.5	4.4
2015	5.1	4.5	4.2
2016	4.1	4.1	3.3
2017	5.0	3.4	3.2
2018	4.7	3.8	3.5
2019	4.2	4.0	3.6
2020	3.4	3.3	3.5
2021	4.4	4.2	3.7
2022	3.4	2.8	3.3
2023	4.2	3.2	3.0
2024	3.8	3.6	3.2
Average	5.2	4.6	4.3

^a Age classes: 1 = 1 week; 2 = 2-5 weeks; 3 = 6-8 weeks and older

Based on estimated age-classes of poults observed during the Summer Wild Turkey Survey (Table 8) and standard back-dating, earliest onset of egg-laying began the week of March 8 in 2024, but most successful nests (including initial attempts and renesting attempts) were initiated between the weeks beginning April 12 and May 24 (Figure 9). The median initiation date for all nesting attempts once again occurred during the week of May 3, a week earlier than the long-term median of May 10.

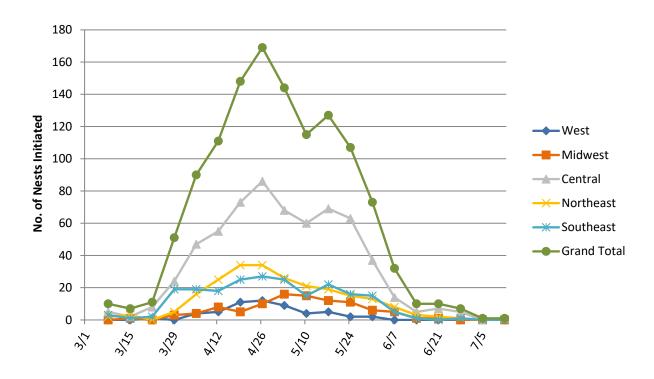


Figure 9. Statewide wild turkey nests initiated per week based on backdating of staff and public observations, 2024.

ANNUAL WILD TURKEY SUMMER SURVEY



Nam e:	 	
Phone Number:		

RETURN TO:

- · Supervisor by September 1
- · Regional Biologist by September 5
- · Nashville Office by September 10

WILD TURKEY POULT AGE CLASSES

Please classify poults observed as one of these three age classes and record in the "poult age" column.



CLASS 1 cardinal size (Week 1) up to 6 inches tall full down

2 wing bars



quail - wood duck size (Weeks 2-5) 7 - 10 inches tall downy body, feathered wings 3 - 4 wing bars



≥ chicken size (Weeks 6–8) 14 - 15 inches tall body with contour feathers, some down at neck black and white primaries emerging



Tennessee Wildlife Resources Agency WILD TURKEY SUMMER SURVEY



Phone #:

															Date
															County
															# of hens without poults
															# of hens with poults
															# of poults
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	Poult age
yes no	Complete observation?														
															# of males
															# of <i>adults</i> unknown gender
on sav	yes no	Likely seen before?													
Priv. Pub.	Private or public land														

Please record all observations of gobblers, hens, and poults on this form.

Record each observation on a single row. However, if poults of different age classes are present, record the number of poults in each age class on separate lines, with the accompanying hen group (brood).

Accurate counts are important. When observing from a vehicle, pull over (if possible) to get a good look, preferably using binoculars.

Complete Observation: If you are unable to get an accurate poult count due to vegetation cover, rapid movement, etc., circle "no." Incomplete counts are still used in data analysis.

Likely Seen Before: If you suspect observations of the same turkey(s) are being made, record once per month and circle "yes" for subsequent observations.

Direct question/comments to: Roger Shields, TWRA Wild Turkey Program Coordinator, roger.shields@tn.gov, (615) 781-6619. Survey period begins June 1 and continues through August 31. Use multiple forms if needed

WR-1032 (Rev. 4/21) • Wildlife & Forestry Division

Thank you for participating!