

**ANNUAL REPORT OF THE DEPARTMENT OF NATURAL RESOURCES ON
ACT 51 123rd SESSION OF THE SOUTH CAROLINA
GENERAL ASSEMBLY (2019)**



Wild Turkey Resources in South Carolina 2024



January 2025

EXECUTIVE SUMMARY

Act 51 of the 123rd Session of the South Carolina General Assembly largely rewrote wild turkey hunting laws in South Carolina. It established new turkey season frameworks, imposed a limit of one gobbler during the first 10 days of the season, a daily limit of one gobbler, and it imposed a first-time fee on turkey tags. Act 51 also requires that “The department shall provide an annual report on the wild turkey resources in South Carolina to the Chairman of the Senate Fish, Game and Forestry Committee and the Chairman of the House Agriculture and Natural Resources Committee.” The following is offered by the department to fulfill that requirement.

The popularity and status of the Eastern wild turkey in South Carolina drives the South Carolina Department of Natural Resources (SCDNR) Wildlife Section's ongoing commitment to conduct pertinent research, surveys and monitoring related to the state's wild turkey population. Due to the importance of turkeys as a state resource, SCDNR believes that accurately assessing the productivity, harvest, as well as hunter participation in turkey hunting, is key to the management of this species.

Agencies and legislators are faced with the daunting task of designing and recommending regulatory frameworks that maximize hunter satisfaction while ensuring that populations are sustainable. Proposed changes in turkey-related laws and regulations should have foundations in biology, therefore, the population dynamics associated with annual reproduction and hunting mortality must be monitored and reported. Similarly, when issues arise that do not involve biological parameters, it is important to have information related to turkey hunter activities afield because they also form an important basis for managing wild turkeys.

The objectives of annual survey and monitoring are to obtain valid estimates of; (1) the statewide spring gobbler harvest, (2) the harvest of gobblers in the constituent counties, (3) hunting effort related to turkeys, (4) information on hunters’ opinions of the turkey resource and other aspects of turkey hunting, and (5) annual reproduction and recruitment of wild turkeys in South Carolina.

Wildlife biologists and managers in South Carolina and throughout the range of the Eastern wild turkey have observed and reported declines in productivity, likely attributable to large-scale declines in nest success and brood survival. Likewise, declines in turkey abundance, and corresponding declines in spring harvest of males have been noted. Collectively, these findings are of considerable concern to state wildlife agencies, like SCDNR, charged with ensuring sustainable populations of wild turkeys. During July and August of 2023 SCDNR hosted a series of five public meetings around the state to discuss the concerns and options for future management to address these declines. A report on this effort was provided to the legislature in December of 2023 leading to [Act 224](#) which marked the third wild turkey season and bag limit change since 2015.

To quantify, South Carolina has experienced declines in turkey productivity since 1988. Average recruitment prior to 1988 was 3.5 poults per hen. Average recruitment since then has been 2.1, representing a 40 percent decrease in average recruitment. Coincidentally, the turkey harvest has decreased nearly 50 percent since it peaked in 2002.

The declines, here and in other states, have precipitated numerous research projects over the last decade. This research has been conducted by several universities across the Southeast, with assistance and primary funding from state wildlife agencies. SCDNR has and continues to support and participate in these studies. Over time, the agency hopes to gain a better understanding of the factors influencing turkey declines, and methods, techniques, and management strategies to slow or reverse this trend. This research entails a comprehensive assessment of reproductive ecology and chronology of male and female wild turkeys. This includes studies of timing, location and success of nesting and brood rearing activity. Projects also investigate survival, behavioral and movement data, demographic parameters, gobbling activity, and descriptions of mate selection and parentage for populations of wild turkeys.

Summaries of current research can be found within this report.

Turkey harvest, hunter participation and hunter effort are estimated by means of an annual mail survey that involves a single mail-out. Hunters are surveyed randomly by selecting 35,000 individuals who received a set of 2024 Turkey Transportation Tags which are required to hunt turkeys in South Carolina. During the 2024 spring season it is estimated that a total of 11,836 adult gobblers and 592 jakes were harvested for a statewide total of 12,428 turkeys. This figure represents a 4.9 percent decrease from the estimated harvest in 2023 (13,074). Recent turkey harvest figures remain well below levels from the past reflecting decreased numbers of turkeys likely due to ongoing poor recruitment of poults into the population. This trend appears to be a regional situation and has been called the “southeast turkey decline” by biologists and managers.

Wild turkey productivity is assessed by observations of reproduction and associated survival of offspring being recruited into the population. This measure of young entering the population based on the number of hens in the population is the Total Recruitment Ratio (TRR). This annual index is the most practical measure of productivity because it considers successful hens, unsuccessful hens, and poult survival. Recruitment of four or more poults per hen is considered excellent, three is good, two is fair and considered a break-even point, and less than two poults per hen is poor. During 2024 statewide Total Recruitment Ratio was 1.6 which should be considered poor. For hens that successfully raised a brood, average brood size was 3.6 poults, a number that has remained consistent over time. However, the driving factor in the low productivity is the high percentage of hens with no poults at all by late summer. Fifty-six percent of hens observed during the 2024 survey had no poults and that figure has averaged 59 percent the last five years.

The current estimated population of wild turkeys in South Carolina is approximately 87,000. This is based on a hen to gobbler ratio of 1.75:1 derived from the 2024 Summer Turkey Survey, the estimated harvest of 12,428 gobblers during spring 2024 and a 40 percent male harvest rate. Male harvest rate is based on long-term average disparity in hen to gobbler ratio which can only be explained by differential mortality between the sexes, in this case attributed to hunter harvest.

Additional details and discussion on the annual harvest and productivity surveys are found within this report.

2024 SC WILD TURKEY HARVEST REPORT

Introduction

Ranking only behind white-tailed deer in popularity among hunters, the Eastern wild turkey is an important natural resource in South Carolina. The 2024 Turkey Hunter Survey represents the South Carolina Department of Natural Resources (SCDNR), Wildlife Section's ongoing commitment to conduct pertinent research related to the state's wild turkey population. The primary objectives of this survey research were to obtain valid estimates of; (1) the statewide spring gobbler harvest in 2024, (2) the harvest of gobblers in the constituent counties of the state, and (3) hunting effort related to turkeys. Information on hunter's opinions of the turkey resource and other aspects of turkey hunting are also presented.

Due to the importance of turkeys as a state resource, SCDNR believes that accurately assessing the harvest of turkeys, as well as hunter participation in turkey hunting, is key to the management of this species. Proposed changes in turkey-related laws and regulations should have foundations in biology, therefore, the population dynamics associated with annual hunting mortality cannot be ignored. Similarly, when issues arise that do not involve biological parameters, it is important to have information related to turkey hunter activities afield because they too form an important basis for managing wild turkeys.

Since the inception of the Statewide Turkey Restoration and Research Project (Turkey Project) the methods used to document the turkey harvest have changed. Historically, turkey harvest figures were developed using a system of mandatory turkey check stations across the state. This system yielded an actual count of harvested turkeys and was, therefore, an absolute minimum harvest figure. Shortcomings in this system included deterioration in compliance, quality of data, complaints from hunters regarding the inconvenience of check stations, etc. The requirement to physically check harvested turkeys in South Carolina was eliminated following the 2005 season at which time post season hunter surveys were implemented. The 2021 spring season marked the inaugural year of SC Game Check and electronic harvest reporting for turkeys. With this, SCDNR has two sources of harvest data for comparison. It should be noted that although reporting is mandatory, noncompliance by some hunters should be expected. Rates of noncompliance will be estimated using the post season survey and due to noncompliance, figures obtained from the survey will likely be higher than those from electronic harvest reporting.

Survey Methodology

The 2024 Turkey Hunter Survey represented a random mail survey that involved a single mail-out. The questionnaire for the 2024 Turkey Hunter Survey was developed by Wildlife Section personnel (Figure 1). The mailing list database was constructed by randomly selecting 35,000 individuals who received a set of 2024 Turkey Transportation Tags which are required to hunt turkeys in South Carolina. Data entry was completed by Success Staffing, LLC, Seabrook, South Carolina. Statistical analysis was conducted using Statistix 10 (Analytical Software, Tallahassee, FL).

Results and Discussion

Turkey Harvest

During the 2024 spring season it is estimated that a total of 11,836 adult gobblers and 592 jakes were harvested for a statewide total of 12,428 turkeys (Table 1). This figure represents a 4.9 percent decrease from the estimated harvest in 2023 (13,074). Recent turkey harvest figures remain well below levels from the past reflecting decreased numbers of turkeys likely due to ongoing poor recruitment of poults into the population. This trend appears to be a regional situation and has been called the “southeast turkey decline” by biologists and managers. The percentage of jakes in the 2024 harvest was approximately 5 percent based on the post season survey and 6 percent based on reports through SC Game Check. Both are relatively low percentages of jakes in the harvest and similar to 2023.

The 2024 spring season was the fourth year of SC Game Check and electronic harvest reporting for wild turkeys. Therefore, SCDNR now has two sources of harvest data for comparison. There were 9,752 turkeys reported through SC Game Check (9,752 gobblers and 568 jakes). Although reporting is mandatory there will always be lack of compliance by some proportion of hunters. To estimate noncompliance a question was included on the hunter survey asking hunters who indicated they killed a turkey(s) “Did you report your harvest to SC Game Check?”. Results, which were cross-referenced with SC Game Check, indicate that 32 percent of hunters did not report their harvest. Using this as a correction factor increases the figure that should have been reported through SC Game Check to approximately 12,900 turkeys. Therefore, there is about a 4 percent discrepancy between the corrected reported harvest and the harvest estimated by the 2024 Turkey Hunter Survey.

Harvest Per Unit Area County Rankings

Comparisons can be made between turkey harvests from the various counties in South Carolina if a harvest per unit area is established. Harvest per unit area standardizes the harvest among counties regardless of the size of individual counties. One measure of harvest rate is the number of turkeys taken per square mile (640ac. = 1 mile²). When considering the estimated turkey habitat that is available in South Carolina, the turkey harvest rate in 2024 was 0.6 gobblers per square mile statewide (Table 2). Although this harvest rate is not as high as it once was, it should be considered good and is like other Southeastern states. The top 5 counties for harvest per unit area were Union (1.2 turkeys/mile²), Williamsburg (1.2 turkeys/mile²), Bamberg (0.9 turkeys/mile²), and a tie between Spartanburg, Charleston, Anderson, Dorchester, Colleton, Greenville (0.8 turkeys/mile²) (Table 2).

Turkey Harvest Rankings by County

Total turkey harvest is not comparable among counties because there is no standard unit of comparison, i.e., counties vary in size and are, therefore, not directly comparable. However, some readers may be interested in this type of ranking. The top 5 counties during 2024 were, Williamsburg, Colleton, Orangeburg, Berkeley, and Union (Table 3).

Number of Turkey Hunters

Even though all individuals receiving a set of Turkey Transportation Tags were eligible to hunt turkeys, only 62 percent indicated that they actually hunted turkeys. Based on this figure, approximately 47,007 hunters participated in the 2024 spring turkey season, a 1 percent increase from 2023 (46,522). Counties

with the highest estimates for individual hunters include Berkeley, Laurens, Union, Fairfield, and Orangeburg (Table 4).

Hunter Effort

For the purposes of this survey hunter effort was measured in days with one day being defined as any portion of the day spent afield. Turkey hunters averaged approximately 7 days afield during the 2024 season (Table 4). Successful hunters averaged significantly more days afield (9.7 days) than unsuccessful hunters (5.7 days). Extrapolating to the entire population of turkey hunters yields a figure of 245,845 total days of spring gobbler hunting, a 3.7 percent decrease from 2023 (255,140 days). The top 5 South Carolina counties for overall days of turkey hunting during 2023 were Berkeley, Fairfield, Union, Williamsburg, and Orangeburg (Table 4).

Turkey Harvest by Period of Season

Gobbling by male wild turkeys occurs primarily in the spring and is for the purpose of attracting hens for mating. Therefore, spring turkey hunting is characterized by hunters attempting to locate and call gobbling male turkeys using simulated hen calls. With respect to both biology and quality hunting, the timing of the spring gobbler season should consider three primary factors: peak breeding, peak gobbling, and peak nest initiation. Considering these factors, seasons can be set to afford hunters the best opportunity to hunt during the best time (i.e., peak gobbling) without inhibiting reproductive success of hens.

A recent multi-year nesting study conducted in the lower coastal plain indicates that on average, hens do not initiate nesting until April 9. Gobbling studies conducted simultaneously to the nesting studies indicate peak gobbling occurs the first 10 days of April. The peak in gobbling is believed to coincide with nest initiation by hens because gobbling increases in response to decreased hen availability due to commencement of nesting activities.

The 2024 season marked the fourth year of a return to two spring turkey season frameworks in South Carolina. In Game Zones 1 and 2, which encompass the piedmont and mountains the season is April 1 to May 10, whereas, in Game Zones 3 and 4 located in the coastal plain the season is March 22 to April 30. Based on the research, the April 1 season start date coincides more closely with the onset of nesting and peak gobbling. This should provide for improved reproductive success by hens because gobblers are not harvested too early, and it should also lead to improved hunting success because gobblers are not accompanied by as many hens due to onset of nesting. On the other hand, the March 22 season start date is nearly 3 weeks prior to peak nest initiation and prior to peak gobbling as well. That being the case, considerations should be given to potential effects on reproduction due to excessive early removal of males and decreased hunter success due to decreased gobbling and hunters competing with hens.

If seasons are set appropriately, the greatest proportion of turkeys should be harvested during the first week or 10 days of the season because increasing numbers of hens should be egg-laying or incubating resulting in gobblers that are naïve and more responsive to hunters' calls. Harvest by period of season demonstrates that the timing of the April 1 opening date affords higher turkey harvests as most turkeys are harvested during the 10 days following the April 1 opening date (Figure 4).

When broken-out by specific season frameworks the results are similar. In areas where the season begins March 22, only 36 percent of the total harvest was accounted for during the first 10 days of the season (Figure 5). This is likely because late March is the time of peak breeding and males respond to hunters' calls less because hens are available. Hunters refer to this as gobblers being "henned-up." On the other hand, 48 percent of the harvest occurred during the first 10 days of the season in areas where the season begins April 1 (Figure 6). This is because by April 10 a significant number of hens are involved in nesting activities leaving gobblers "lonely" and more receptive to hunters' calls. These same trends were apparent prior to 2016 when there were split seasons in South Carolina with one framework beginning March 15 and the other April 1.

Hunting Success

For determination of hunting success only those individuals who hunted turkeys were included in the analysis and similarly, success was defined as harvesting at least one turkey. Overall hunting success in 2024 was 32 percent (Figure 7). Unlike deer hunting which typically has high success, turkey hunting can be an inherently unsuccessful endeavor, relatively speaking.

The statewide bag limit in South Carolina is 3 gobblers. Obviously, most successful hunters harvest only one or two birds. However, it is interesting to note the relative contribution to the total harvest of turkeys by the few hunters who harvest 3 birds. Ironically, the percentage of hunters taking 3 birds was only 2 percent, however, this small percentage of hunters combined to harvest an estimated 23 percent of the total birds taken in the state (Figure 8). Finally, based on reports to SC Game Check, hunters from 35 states and 3 Canadian provinces reported a turkey harvest. However, nonresidents comprised only 10 percent of the overall harvest in 2024.

Hunter Opinion Regarding Turkey Numbers

As has become customary, the 2024 Turkey Hunter Survey asked participants to compare the number of turkeys in the area they hunt most often with the number of turkeys in past years. Participants were given 3 choices: increasing, about the same, or decreasing. Approximately 42 percent of hunters indicated that the number of turkeys in the area they hunted most often was about the same as in past years. A higher percentage of hunters (45 percent) believed that the turkey population was decreasing than increasing (13 percent). On a scale of 1 to 3 with 1 being increasing, 2 being the same, and 3 being decreasing, the overall mean rating of 2.3 suggests that hunters viewed the turkey population as decreasing. The opinion among hunters that the turkey population is decreasing has been consistent the last few years.

Turkeys Shot but not Recovered

Harvesting game signals the end of a successful hunt and although most hunters do a good job of preparing their equipment and mental state, it goes without saying that a certain percentage of game is shot or shot at and not killed or recovered. This point is no different when turkey hunting.

To estimate the prevalence of errant shots at turkeys, the 2024 Turkey Hunter Survey asked hunters to indicate the number of turkeys they "shot but did not kill or recover during the 2024 season in South Carolina." Approximately 9 percent of hunters indicated that they shot but did not kill or recover at least one turkey in 2024 (10 percent in 2023). There were approximately 47,007 turkey hunters in 2024

meaning that approximately 4,300 turkeys were shot or shot at and not killed or recovered. Therefore, approximately 26 percent of the total turkeys shot at were not killed or recovered. These results have been consistent since this type of data have been available with the long-term average of birds “shot at but not killed or recovered” about 22 percent for the last decade.

These data are certainly not indicative of “dead and unrecovered turkeys,” however, some percentage of the 4,300 turkeys that were shot at did die. Although shot shells for turkeys have become increasingly sophisticated, accurate, and lethal it is a fact that the pattern of a shotgun is relatively broad and contains hundreds of pellets. Therefore, a “clean miss” is not as clear-cut for turkeys compared to other big game like deer where there is typically a single projectile. Additional research is needed on this topic.

Turkey Harvest in the Morning vs. Afternoon

The typical spring turkey hunt is characterized by attempting to locate a gobbling bird prior to or just after sunrise. Once a gobbler is located most hunters position themselves as close as they can to the gobbler without scaring it away. Various types of callers that mimic the sounds of wild turkeys are then used to attempt to call the gobbler into gun range. This technique of locating a gobbling bird, setting up, and calling is repeated as necessary.

Traditionally, spring turkey hunting was primarily carried out during the first few hours of the day. As the popularity of turkey hunting has increased, many hunters now hunt in the afternoon as well. Gobblers are generally not as vocal in the afternoon, but can be stimulated to gobble using the various turkey calls, particularly late in the afternoon near areas where turkeys frequently roost. Additionally, it is now common for hunters to set up on food plots, often in blinds, using decoys in areas that turkeys frequent for feeding and loafing in the afternoon.

To gain a better understanding of the distribution of harvest with respect to time of day, the 2024 Turkey Hunter Survey asked hunters to identify the number of birds harvested in the morning compared to the afternoon. Results indicate that approximately 79 percent of gobblers were harvested in the morning compared to 21 percent in the afternoon. This coincides with data reported through SC Game Check. These data may be useful if discussions arise concerning the relative importance of morning compared to afternoon harvest of gobblers in the spring. Results have been consistent since this type of data has been available with the long-term average of birds shot in the afternoon about 24 percent for the last decade.

Turkey Harvest on Private vs. Public (WMA) Land

To gain an understanding of the relative importance of the turkey harvest on private versus public (WMA) land, the 2024 Turkey Hunter Survey asked hunters how many birds they took on the respective types of land. Data from both the survey and reports through SC Game Check indicate that approximately 91 percent of birds are taken on private land and 9 percent on public (WMA) land. Interestingly, public land comprises only about 7 percent of the turkey habitat in the state. Therefore, although a relatively small proportion of the total harvest occurred on public land, it slightly outperformed what would be expected based on available habitat.

With electronic reporting of harvested wild turkeys through SC Game Check now required, harvest figures for individual WMA's are now available (Table 5). Based on these reports, 75 jakes and 760

adult gobblers were harvested for a total of 835 turkeys taken on the various WMAs in 2024 (833 in 2023). As previously discussed, although reporting is mandatory, 32 percent of hunters did not report their harvest. With this in mind, an estimate of turkeys harvested on WMAs would increase to approximately 1,089.

Use of Ground Blinds

With the decline in turkeys in recent years there is considerable discussion related to the factors contributing to this decline. Although ongoing low recruitment is thought to be the primary factor, many believe that changes in turkey hunting techniques and technology has made hunters more efficient. One issue is the use of ground blinds which traditionally were rarely used for turkey hunting. The belief being that some hunters who may lack traditional turkey hunting skills may be using blinds to “still hunt” turkeys like deer. This is particularly the case on food plots in the afternoon where turkeys may be known to loaf and feed due to the use of game cameras. If male turkey harvest using these newer techniques is additive to traditional morning harvest then it would increase the harvest rate on male turkeys which could affect reproductive success of hens.

To assess this issue the following question was included on the 2024 Turkey Hunter Survey: “Do you turkey hunt from a ground blind?” with possible responses being (1) never, (2) occasionally, (3) frequently, and (4) always. Responses indicate that approximately 53 percent of hunters use ground blinds at least occasionally with 26 percent using them frequently or always. Cross-referencing other statistics indicates that hunters who use blinds hunt statistically fewer days and harvest fewer turkeys than hunters who never use blinds. About 28 percent more hunters who never use a blind took at least one turkey in the morning compared to those who use a blind at least occasionally. On the other hand, there was an equal proportion of hunters who took at least one turkey in the afternoon with respect to whether they use a blind. This seems to indicate that hunters who use blinds may be doing so related to afternoon hunting. The question is, are hunters who use blinds harvesting male turkeys that would otherwise not be taken and are these turkeys additive to traditional harvest rates?

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Table 1. Estimated statewide turkey harvest in South Carolina in 2024.

County	Acres*	Square Miles	Gobbler Harvest	Jake Harvest	Total Harvest	Percent Jakes	Harvest Rates	
							Ac/Turkey	Turkey/Mi. ²
Abbeville	223,113	349	190	41	231	17.8	965	0.7
Aiken	500,546	782	112	14	126	10.9	3,988	0.2
Allendale	216,455	338	185	5	189	2.4	1,145	0.6
Anderson	219,068	342	252	23	274	8.3	798	0.8
Bamberg	196,573	307	252	14	265	5.2	741	0.9
Barnwell	281,764	440	112	14	126	10.9	2,244	0.3
Beaufort	147,441	230	78	3	82	4.1	1,807	0.4
Berkeley	567,530	887	565	5	569	0.8	997	0.6
Calhoun	190,584	298	162	5	167	2.8	1,143	0.6
Charleston	288,732	451	358	14	372	3.7	777	0.8
Cherokee	156,664	245	140	18	158	11.6	991	0.6
Chester	300,589	470	212	14	226	6.1	1,329	0.5
Chesterfield	372,478	582	123	9	132	6.9	2,819	0.2
Clarendon	298,087	466	274	14	288	4.8	1,036	0.6
Colleton	502,666	785	604	9	613	1.5	820	0.8
Darlington	286,228	447	190	9	199	4.6	1,437	0.4
Dillon	214,069	334	134	5	139	3.3	1,543	0.4
Dorchester	302,717	473	363	14	377	3.6	803	0.8
Edgefield	246,543	385	212	27	240	11.4	1,028	0.6
Fairfield	384,607	601	313	14	327	4.2	1,177	0.5
Florence	397,888	622	386	23	409	5.6	974	0.7
Georgetown	399,638	624	280	9	289	3.2	1,384	0.5
Greenville	294,257	460	347	9	356	2.6	827	0.8
Greenwood	204,400	319	134	11	145	7.7	1,406	0.5
Hampton	324,840	508	218	5	223	2.1	1,459	0.4
Horry	533,336	833	369	18	387	4.7	1,377	0.5
Jasper	309,889	484	157	8	164	4.6	1,888	0.3
Kershaw	360,485	563	235	14	249	5.5	1,450	0.4
Lancaster	266,382	416	190	14	204	6.7	1,307	0.5
Laurens	317,916	497	313	14	327	4.2	973	0.7
Lee	220,106	344	185	5	189	2.4	1,164	0.5
Lexington	280,742	439	84	6	90	6.5	3,131	0.2
McCormick	212,021	331	117	9	127	7.2	1,675	0.4
Marion	216,907	339	173	8	181	4.3	1,198	0.5
Marlboro	281,271	439	123	5	128	3.6	2,205	0.3
Newberry	317,761	497	190	19	209	9.0	1,522	0.4
Oconee	284,348	444	218	9	227	4.0	1,251	0.5
Orangeburg	504,516	788	565	14	578	2.4	872	0.7
Pickens	219,926	344	229	12	242	5.1	910	0.7
Richland	340,121	531	201	14	215	6.4	1,582	0.4
Saluda	192,173	300	73	5	77	5.9	2,488	0.3
Spartanburg	265,939	416	335	14	349	3.9	762	0.8
Sumter	338,968	530	291	27	318	8.6	1,065	0.6
Union	258,111	403	486	14	500	2.7	516	1.2
Williamsburg	513,851	803	922	23	945	2.4	544	1.2
York	276,650	432	185	18	203	9.0	1,364	0.5
Total	14,028,896	21,920	11,836	592	12,428	4.8	1,129	0.6

95% Conf. Interval for harvest

(+-) 973 (+-) 202 (+-) 1,001

* Acreage shown represents the acreage of forested land and acreage of row crops considered to be significant turkey habitat within each county.

Table 2. County rankings based on turkey harvest per unit area in South Carolina in 2024.

County	Acres*	Square Miles	Gobbler Harvest	Jake Harvest	Total Harvest	Percent Jakes	Harvest Rates	
							Ac/Turkey	Turkey/Mi. ²
Union	258,111	403	486	14	500	2.7	516	1.2
Williamsburg	513,851	803	922	23	945	2.4	544	1.2
Bamberg	196,573	307	252	14	265	5.2	741	0.9
Spartanburg	265,939	416	335	14	349	3.9	762	0.8
Charleston	288,732	451	358	14	372	3.7	777	0.8
Anderson	219,068	342	252	23	274	8.3	798	0.8
Dorchester	302,717	473	363	14	377	3.6	803	0.8
Colleton	502,666	785	604	9	613	1.5	820	0.8
Greenville	294,257	460	347	9	356	2.6	827	0.8
Orangeburg	504,516	788	565	14	578	2.4	872	0.7
Pickens	219,926	344	229	12	242	5.1	910	0.7
Abbeville	223,113	349	190	41	231	17.8	965	0.7
Laurens	317,916	497	313	14	327	4.2	973	0.7
Florence	397,888	622	386	23	409	5.6	974	0.7
Cherokee	156,664	245	140	18	158	11.6	991	0.6
Berkeley	567,530	887	565	5	569	0.8	997	0.6
Edgefield	246,543	385	212	27	240	11.4	1,028	0.6
Clarendon	298,087	466	274	14	288	4.8	1,036	0.6
Sumter	338,968	530	291	27	318	8.6	1,065	0.6
Calhoun	190,584	298	162	5	167	2.8	1,143	0.6
Allendale	216,455	338	185	5	189	2.4	1,145	0.6
Lee	220,106	344	185	5	189	2.4	1,164	0.5
Fairfield	384,607	601	313	14	327	4.2	1,177	0.5
Marion	216,907	339	173	8	181	4.3	1,198	0.5
Oconee	284,348	444	218	9	227	4.0	1,251	0.5
Lancaster	266,382	416	190	14	204	6.7	1,307	0.5
Chester	300,589	470	212	14	226	6.1	1,329	0.5
York	276,650	432	185	18	203	9.0	1,364	0.5
Horry	533,336	833	369	18	387	4.7	1,377	0.5
Georgetown	399,638	624	280	9	289	3.2	1,384	0.5
Greenwood	204,400	319	134	11	145	7.7	1,406	0.5
Darlington	286,228	447	190	9	199	4.6	1,437	0.4
Kershaw	360,485	563	235	14	249	5.5	1,450	0.4
Hampton	324,840	508	218	5	223	2.1	1,459	0.4
Newberry	317,761	497	190	19	209	9.0	1,522	0.4
Dillon	214,069	334	134	5	139	3.3	1,543	0.4
Richland	340,121	531	201	14	215	6.4	1,582	0.4
McCormick	212,021	331	117	9	127	7.2	1,675	0.4
Beaufort	147,441	230	78	3	82	4.1	1,807	0.4
Jasper	309,889	484	157	8	164	4.6	1,888	0.3
Marlboro	281,271	439	123	5	128	3.6	2,205	0.3
Barnwell	281,764	440	112	14	126	10.9	2,244	0.3
Saluda	192,173	300	73	5	77	5.9	2,488	0.3
Chesterfield	372,478	582	123	9	132	6.9	2,819	0.2
Lexington	280,742	439	84	6	90	6.5	3,131	0.2
Aiken	500,546	782	112	14	126	10.9	3,988	0.2
Total	14,028,896	21,920	11,836	592	12,428	4.8	1,129	0.6

95% Conf. Interval for harvest (+-) 973 (+-) 202 (+-) 1,001

* Acreage shown represents the acreage of forested land and acreage of row crops considered to be significant turkey habitat within each county.

Table 3. County rankings based on total turkeys harvested in South Carolina in 2024.

County	Acres*	Square Miles	Gobbler Harvest	Jake Harvest	Total Harvest	Percent Jakes	Harvest Rates	
							Ac/Turkey	Turkey/Mi. ²
Williamsburg	513,851	803	922	23	945	2.4	544	1.2
Colleton	502,666	785	604	9	613	1.5	820	0.8
Orangeburg	504,516	788	565	14	578	2.4	872	0.7
Berkeley	567,530	887	565	5	569	0.8	997	0.6
Union	258,111	403	486	14	500	2.7	516	1.2
Florence	397,888	622	386	23	409	5.6	974	0.7
Horry	533,336	833	369	18	387	4.7	1,377	0.5
Dorchester	302,717	473	363	14	377	3.6	803	0.8
Charleston	288,732	451	358	14	372	3.7	777	0.8
Greenville	294,257	460	347	9	356	2.6	827	0.8
Spartanburg	265,939	416	335	14	349	3.9	762	0.8
Fairfield	384,607	601	313	14	327	4.2	1,177	0.5
Laurens	317,916	497	313	14	327	4.2	973	0.7
Sumter	338,968	530	291	27	318	8.6	1,065	0.6
Georgetown	399,638	624	280	9	289	3.2	1,384	0.5
Clarendon	298,087	466	274	14	288	4.8	1,036	0.6
Anderson	219,068	342	252	23	274	8.3	798	0.8
Bamberg	196,573	307	252	14	265	5.2	741	0.9
Kershaw	360,485	563	235	14	249	5.5	1,450	0.4
Pickens	219,926	344	229	12	242	5.1	910	0.7
Edgefield	246,543	385	212	27	240	11.4	1,028	0.6
Abbeville	223,113	349	190	41	231	17.8	965	0.7
Oconee	284,348	444	218	9	227	4.0	1,251	0.5
Chester	300,589	470	212	14	226	6.1	1,329	0.5
Hampton	324,840	508	218	5	223	2.1	1,459	0.4
Richland	340,121	531	201	14	215	6.4	1,582	0.4
Newberry	317,761	497	190	19	209	9.0	1,522	0.4
Lancaster	266,382	416	190	14	204	6.7	1,307	0.5
York	276,650	432	185	18	203	9.0	1,364	0.5
Darlington	286,228	447	190	9	199	4.6	1,437	0.4
Allendale	216,455	338	185	5	189	2.4	1,145	0.6
Lee	220,106	344	185	5	189	2.4	1,164	0.5
Marion	216,907	339	173	8	181	4.3	1,198	0.5
Calhoun	190,584	298	162	5	167	2.8	1,143	0.6
Jasper	309,889	484	157	8	164	4.6	1,888	0.3
Cherokee	156,664	245	140	18	158	11.6	991	0.6
Greenwood	204,400	319	134	11	145	7.7	1,406	0.5
Dillon	214,069	334	134	5	139	3.3	1,543	0.4
Chesterfield	372,478	582	123	9	132	6.9	2,819	0.2
Marlboro	281,271	439	123	5	128	3.6	2,205	0.3
McCormick	212,021	331	117	9	127	7.2	1,675	0.4
Barnwell	281,764	440	112	14	126	10.9	2,244	0.3
Aiken	500,546	782	112	14	126	10.9	3,988	0.2
Lexington	280,742	439	84	6	90	6.5	3,131	0.2
Beaufort	147,441	230	78	3	82	4.1	1,807	0.4
Saluda	192,173	300	73	5	77	5.9	2,488	0.3
Total	14,028,896	21,920	11,836	592	12,428	4.8	1,129	0.6

95% Conf. Interval for harvest

(+-)	(+-)	(+-)
------	------	------

* Acreage shown represents the acreage of forested land and acreage of row crops considered to be significant turkey habitat within each county.

Table 4. Estimated number of turkey hunters, average days hunted, and total hunting effort in SC in 2024.

County	Total Harvest	Number Hunters	Avg. Days Hunted	Total Man/Days
Abbeville	231	1,298	4.8	6,254
Aiken	126	838	5.0	4,179
Allendale	189	682	4.8	3,272
Anderson	274	1,216	4.7	5,728
Bamberg	265	771	5.8	4,437
Barnwell	126	630	5.3	3,335
Beaufort	82	297	4.0	1,179
Berkeley	569	1,854	5.5	10,137
Calhoun	167	630	4.6	2,923
Charleston	372	1,446	4.8	6,872
Cherokee	158	623	6.3	3,921
Chester	226	1,268	5.3	6,715
Chesterfield	132	771	5.8	4,507
Clarendon	288	867	5.1	4,458
Colleton	613	1,579	5.0	7,862
Darlington	199	475	6.2	2,965
Dillon	139	326	5.9	1,912
Dorchester	377	882	5.1	4,528
Edgefield	240	1,209	5.7	6,865
Fairfield	327	1,779	5.4	9,599
Florence	409	1,068	5.6	6,000
Georgetown	289	845	5.3	4,451
Greenville	356	1,438	4.4	6,334
Greenwood	145	1,001	4.6	4,587
Hampton	223	934	5.5	5,166
Horry	387	994	5.3	5,239
Jasper	164	682	4.7	3,195
Kershaw	249	1,060	4.7	5,023
Lancaster	204	823	6.7	5,532
Laurens	327	1,824	4.8	8,832
Lee	189	667	5.4	3,579
Lexington	90	519	4.3	2,246
McCormick	127	1,016	4.8	4,897
Marion	181	697	4.6	3,237
Marlboro	128	311	6.1	1,905
Newberry	209	1,676	5.1	8,623
Oconee	227	1,016	6.0	6,132
Orangeburg	578	1,750	5.3	9,230
Pickens	242	1,105	5.3	5,853
Richland	215	823	5.0	4,109
Saluda	77	719	4.6	3,314
Spartanburg	349	1,275	6.0	7,590
Sumter	318	912	5.6	5,107
Union	500	1,787	5.3	9,516
Williamsburg	945	1,735	5.4	9,432
York	203	890	5.7	5,072
Total	12,428	47,007	5.5*	245,845

*Note - Since individuals hunt multiple counties the average number of days hunted per county varies from the average number of days individuals hunt (7.0 days).

Figure 1. South Carolina Department of Natural Resources 2024 Turkey Hunter Survey.

May, 2024

Dear SC Turkey Hunter:

Eastern wild turkeys are one of the most important game species in South Carolina. Therefore, it is important that this species be monitored for population status and harvesting activities. Wildlife resource managers require current and accurate information about wild turkey harvests to aid in successfully managing this important natural resource and to optimize future hunting potential. To obtain this needed data, the South Carolina Department of Natural Resources (SCDNR) is conducting a survey of hunters who received a set of turkey tags during spring 2024.

Although electronic reporting of harvested turkeys is now required, SCDNR will continue to survey hunters to maintain consistency, determine hunter effort, and measure other aspects of turkey hunting. You are one of a group of randomly selected hunters asked to participate in this survey. To draw accurate conclusions it is very important that you complete the survey and return it. Please take time to read each question. Even if you did not hunt or harvest wild turkeys this spring please indicate this by answering the appropriate questions and moving on to the next set of questions.

Please note that complete confidentiality will be given to you. Keep in mind that the purpose of the survey is to determine the wild turkey harvest in South Carolina and not to determine whether game laws are observed. By accurately answering the survey questions you will enable SCDNR biologists to better manage the Eastern wild turkey resource for you and other citizens of the state. Therefore, it is very important that you take a few minutes to complete this survey and mail it. Return postage is prepaid.

Results of this survey will be posted on the SCDNR web site once completed. The results from the 2023 survey can be found at: www.dnr.sc.gov/wildlife/turkey/2023TurkeyHarvest.html

Charles Ruth
Certified Wildlife Biologist
Big Game Program Coordinator

PLEASE MAIL YOUR SURVEY AFTER SEPARATING THIS HALF FROM THE SIDE ON WHICH YOUR ANSWERS HAVE BEEN ENTERED. NO POSTAGE IS NECESSARY.

If you have questions regarding this survey, please call 803-734-3886

The South Carolina Department of Natural Resources prohibits discrimination on the basis of race, color, sex, national origin, disability, religion or age. Direct all inquiries to the Office of Human Resources, P.O. Box 167, Columbia, SC 29202

24-14143



**TURKEY HUNTER SURVEY
SC DEPARTMENT OF NATURAL RESOURCES
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Figure 1 cont.

2024 South Carolina Turkey Hunter Survey

1. Did you turkey hunt in SC this past season (2024)? 1. Yes 2. No
If you answered **No** to this question please go to question # 11.
2. Did you harvest any turkeys in SC this past season? 1. Yes 2. No
3. Even if you did not harvest a turkey, please record the SC counties you turkey hunted and the number of days hunted in each county this past season (2024). If you harvested turkeys please record the number of adult gobblers and jakes taken in each county. A day of hunting is defined as any portion of the day spent afield. Please do not give ranges (i.e. 5-10), rather provide absolute numbers (i.e. 5). **Provide information only for yourself** - not friends, relatives, or other people you may have called or guided for or hunted with. (*Jakes typically have beards less than 6", spurs less than 1/2" and longer feathers in the center of their tail fan.*)

SC Counties You Turkey Hunted	# Days Hunted	Number Turkeys Harvested
1		Adult gobblers _____ Jakes _____
2		Adult gobblers _____ Jakes _____
3		Adult gobblers _____ Jakes _____
4		Adult gobblers _____ Jakes _____

If you did not harvest any turkeys in SC this past season please go to question 8.

4. If you harvested turkeys in SC this past season, please indicate as best you can the number of turkeys killed by County and 10-day period of the season.

County of Harvest	Number of Turkeys Harvested by Time Period				
	March 22-31	April 1-10	April 11-20	April 21-30	May 1-10
1.					
2.					
3.					

5. How many turkeys did you kill in the morning _____ after 12:00 noon _____?
6. How many turkeys did you kill on Private Land _____ and Public (WMA) Land _____?
7. Did you report your harvest to SC Game Check? 1. Yes 2. No
8. How many turkeys did you shoot but not kill or recover in SC this past season? _____
9. Compared to past years, how would you describe the number of turkeys in the area that you hunted most often this spring?
Circle one 1. Increasing 2. About the same 3. Decreasing
10. Do you turkey hunt from a ground blind?
1. Always 2. Frequently 3. Occasionally 4. Never
11. Are you a resident of SC? 1. Yes 2. No
12. If yes, which county _____

Separate and return this portion of the survey. Postage is prepaid. Please do not staple this form.



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Figure 2. Spring wild turkey harvest in South Carolina 1982-2024. Since 2002 harvest has declined (48%) likely due to less than desirable annual recruitment (see Figure 3 below).

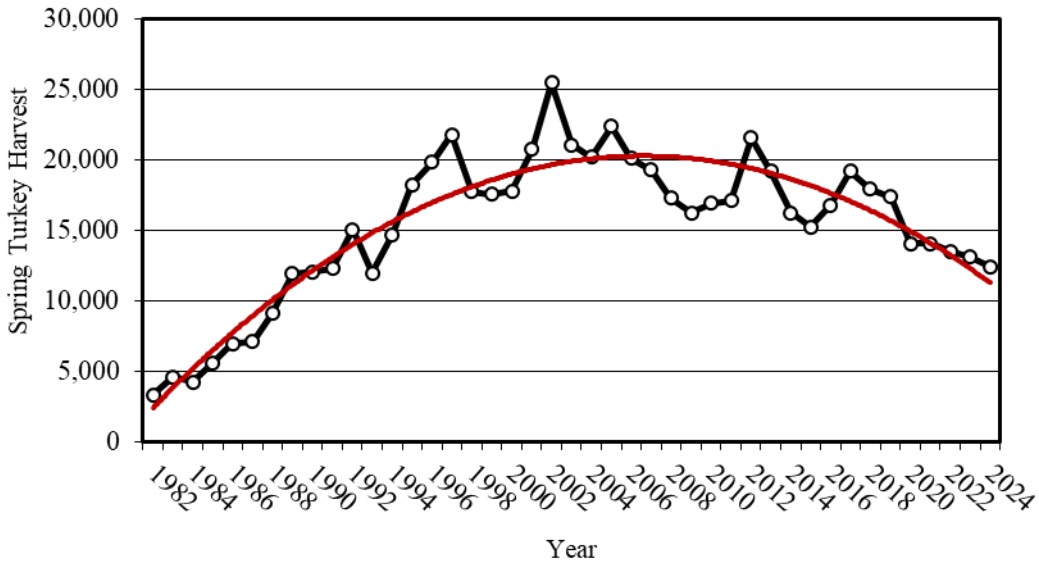


Figure 3. Summer wild turkey recruitment ratio in South Carolina 1982-2024. Note declining trend since 1988. Average recruitment prior to 1988 = 3.5. Average recruitment since 1988 = 2.1. This represents a 40 percent decrease in average recruitment.

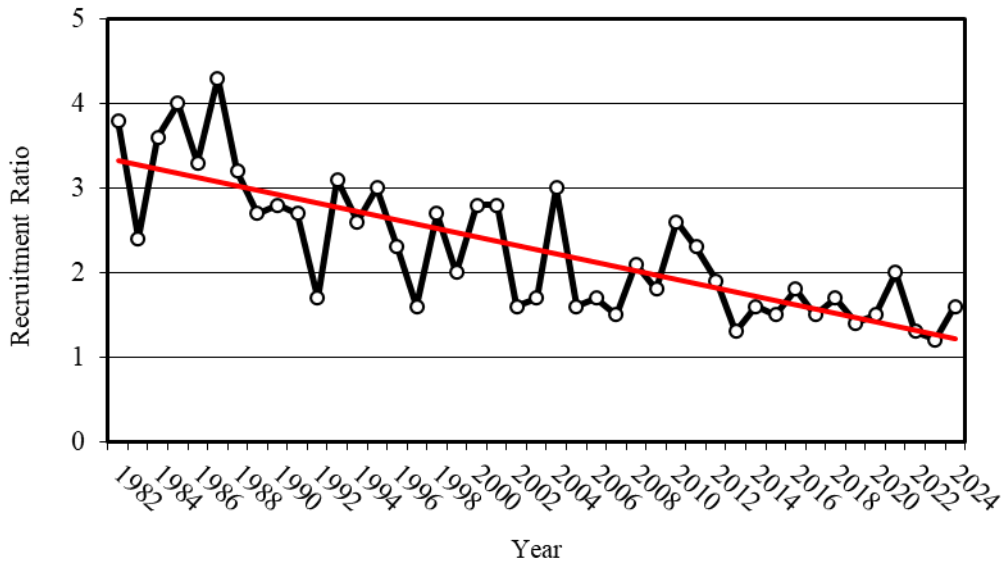


Figure 4. Percentage of gobblers harvested by period of season in South Carolina in 2024.

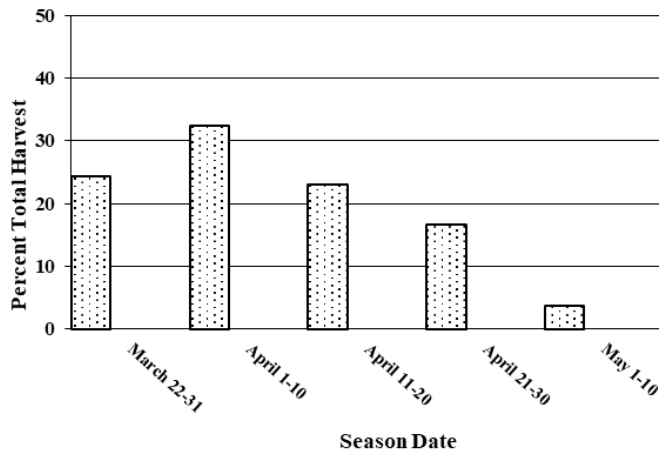


Figure 5. Percentage of gobblers harvested by period of season with March 22-April 30 framework in Game Zones 3 & 4 (coastal plain) in South Carolina in 2024.

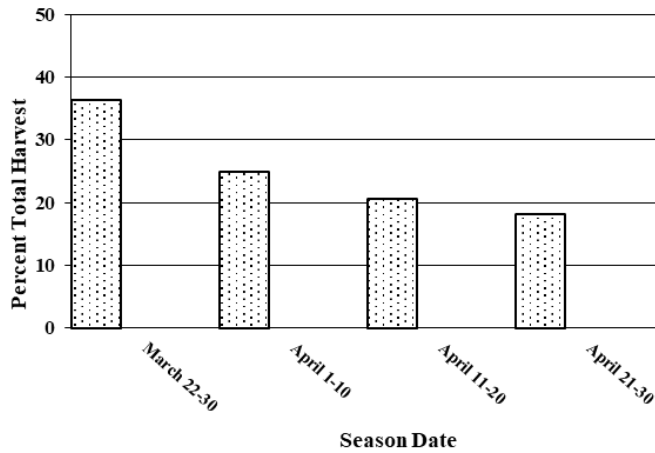


Figure 6. Percentage of gobblers harvested by period of season with April 1-May 10 framework in Game Zones 1 & 2 (piedmont and mountains) in South Carolina in 2024.

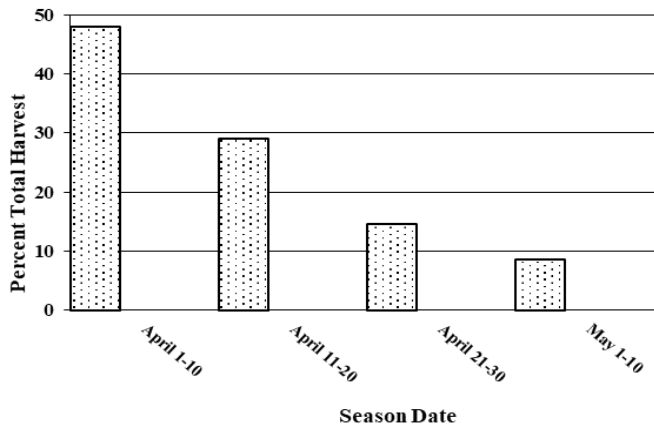


Figure 7. Hunter success during the spring turkey season in South Carolina in 2024. Overall success was 29 percent at harvesting at least one gobbler.

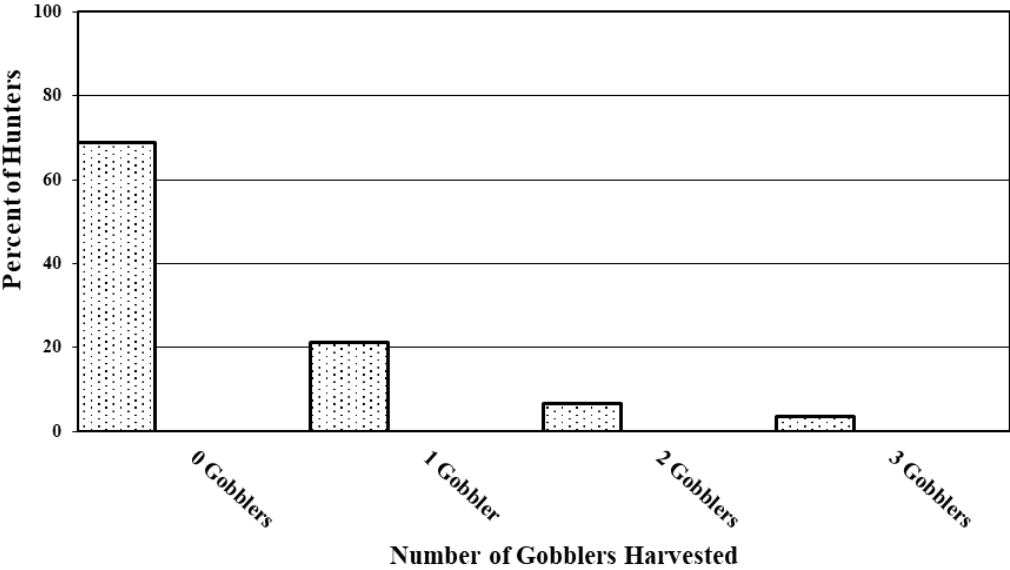


Figure 8. Relative contribution to the total turkey harvest by hunters taking between 1 and 3 gobblers in South Carolina in 2024.

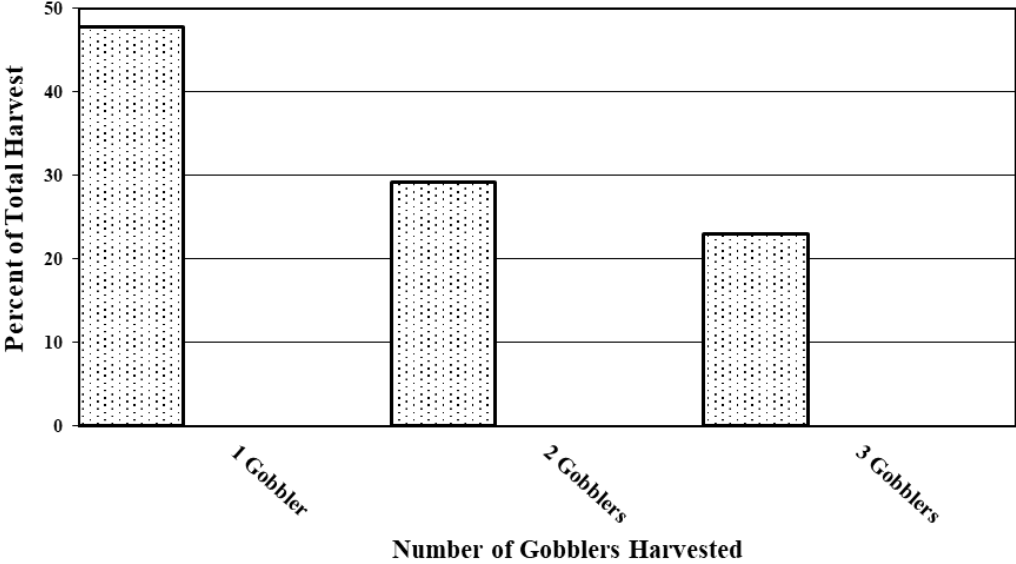


Table 5. Wildlife Management Area (WMA) turkey harvest reported through SC Game Check in 2024.

WMA	County	Acreage	Juvenile	Adult	Total	Ac/Turkey
Aiken Gopher Tortoise HP WMA	Aiken	1,782	0	1	1	1,782
Brasstown Creek HP WMA	Oconee	3,170	0	2	2	1,585
Caesars Head / Jones Gap WMA	Greenville	3,335	0	1	1	3,335
Cliff Pitts WMA	Laurens	1,098	0	2	2	549
Chestnut Ridge HP WMA	Greenville	2,047	1	2	3	682
Crackerneck WMA~	Aiken	10,600	1	6	7	1,514
Edisto River WMA*	Dorchester	1,394	0	3	3	465
Fants Grove WMA	Anderson, Oconee, Pickens	7,444	5	20	25	298
Forty-Acre Rock HP WMA	Lancaster	2,965	0	2	2	1,483
Great Pee Dee River HP WMA*	Darlington	2,725	0	6	6	454
Hamilton Ridge WMA	Hampton	13,281	1	15	16	830
James L. Mason WMA	McCormick	1,999	0	3	3	666
Jocassee Gorges (JTNRA)	Oconee, Pickens	33,000	1	16	17	1,941
Keowee WMA	Oconee, Pickens	4,930	1	7	8	616
Landsford Canal FLA WMA	Chester	1,049	0	3	3	350
Lewis Ocean Bay HP WMA*	Horry	10,097	1	1	2	5,049
Liberty Hill WMA	Kershaw, Lancaster	7,876	1	3	4	1,969
Little Pee Dee River HP WMA*	Horry, Marion	10,444	0	13	13	803
London Creek WMA	Cherokee	1,758	0	4	4	440
Long Creek Tracts WMA	Oconee	500	0	2	2	250
Longleaf Pine HP WMA*	Lee	843	0	2	2	422
Manchester State Forest WMA	Sumter	23,135	5	10	15	1,542
Marsh WMA*	Marion	8,660	0	6	6	1,443
Moultrie Hunt Unit WMA*	Berkeley	9,773	1	8	9	1,086
Oak Lea WMA	Clarendon	2,000	4	13	17	118
Palachucola WMA	Hampton, Jasper	6,757	2	7	9	751
Pee Dee Station WMA*	Florence	2,701	2	4	6	450
Sand Hills State Forest WMA	Chesterfield, Darlington	46,838	5	26	31	1,511
Santee Coastal Reserve WMA^	Charleston, Georgetown	4,000	0	1	1	4,000
Steven's Creek HP WMA	Edgefield, McCormick	434	1	2	3	145
Tall Pines WMA	Greenville	1,757	0	5	5	351
Thurmond Tract WMA	Union	195	1	2	3	65
T. Crk/Kirsh/Ross/McConnells Tracts	York	1,192	0	6	6	199
Waccamaw River HP*	Horry	6,691	1	10	11	608
Webb WMA	Hampton	5,866	0	4	4	1,467
Wee Tee State Forest WMA	Georgetown, Williamsburg	12,439	0	4	4	3,110
Woodbury WMA*	Marion	25,668	1	14	15	1,711
Worth Mountain WMA*	York	1,643	1	1	2	822
Other / Unnamed WMAs	<i>various</i>	126,000	11	77	88	1,432
Belfast WMA (Lottery)	Laurens, Newberry	4,664	0	5	5	933
Bonneau Ferry WMA (Lottery)	Berkeley	10,712	1	4	5	2,142
Donnelley WMA (Lottery)	Colleton	8,066	0	2	2	4,033
Wateree River HP WMA (Lottery)	Richland	3,674	0	1	1	3,674
USFWS Carolina Sandhills NWR	Chesterfield	47,850	1	15	16	2,991
USFWS Savannah NWR	Jasper	7,556	0	2	2	3,778
USFS Francis Marion NF	Berkeley, Charleston	259,000	5	125	130	1,992
USFS Sumter NF, Enoree RD	5 Central Piedmont Counties	170,000	8	194	202	842
USFS Sumter NF, Long Cane RD	5 Western Piedmont Counties	120,000	11	68	79	1,519
USFS Sumter NF, Andrew Pickens RD	Oconee	85,000	2	30	32	2,656
TOTAL		1,124,608	75	760	835	1,347

* Open for hunting Thurs. - Sat. only

~ Open for hunting Fri. & Sat. only

^ Open for hunting Saturdays only. Acreage figure is huntable upland acres, not total WMA acreage.

2024 SOUTH CAROLINA WILD TURKEY SUMMER SURVEY

Annually since the early 1980's, the S.C. Department of Natural Resources (SCDNR) has conducted a Summer Turkey Survey to estimate reproduction and recruitment of wild turkeys in South Carolina. The survey involves agency wildlife biologists, technicians, and game wardens, as well as many volunteers from other natural resource agencies and the general public. This year over 150 participants recorded 763 unique observations, seeing approximately 2,500 adult turkeys and 2,140 poults across the state in July and August. Although wild turkeys nest primarily in April and May in South Carolina, the survey does not take place until late summer. Therefore, the survey statistics document poults (young turkeys) that survived and entered the fall population (Table 1).

Wild turkey productivity is assessed by observations of reproduction and associated survival of offspring being recruited into the population. This measure of young entering the population based on the number of hens in the population is the Total Recruitment Ratio (TRR). This annual index is the most practical measure of productivity because it considers successful hens, unsuccessful hens, and poult survival. Recruitment of four or more poults per hen is considered excellent, three is good, two is fair and considered a break-even point, and less than two poults per hen is poor. If hens are successful at some level, a turkey population can be maintained. However, the goal is to optimize conditions through management applications to promote optimal reproductive success and turkey populations that provide sustainable, quality turkey hunting opportunities into the future. Unlike deer, wild turkeys are much more susceptible to significant fluctuations in reproduction and recruitment. Lack of reproductive success is often associated with bad weather (cold and wet) during nesting and brood rearing season. However, there are a host of predators that take advantage of turkey nests and broods including: raccoons, opossums, skunks, armadillos, snakes, foxes, coyotes, bobcats, feral hogs, and numerous avian predators including hawks, owls, and crows.

South Carolina has experienced declines in turkey productivity since 1988. Average recruitment prior to 1988 was 3.5 poults per hen. Average recruitment since 1988 has been 2.1, representing a 40 percent decrease in average recruitment. Coincidentally, the turkey harvest has decreased approximately 50 percent since it peaked in 2002. This has been a slow and steady decline with TRR numbers in the 1990's averaging 2.5, but since 2005 numbers below 2.0 have been the norm with an average TRR the last 15 years of 1.7 (Figure 2). Long term average TRR figures consistently below 2.0 are indicative of a shrinking population. This year's statewide TRR was 1.6, a slight increase over the previous two years, but still a number indicating poor overall production. For hens that successfully raise a brood, average brood sizes of 3.5 to 4 poults have remained consistent over time. However, the driving factor in the low productivity is the high percentage of hens that have no poults at all by late summer. Fifty-six (56) percent of hens observed this summer had no poults and that figure has averaged 59% the last five years (Table 2). Hens without poults are considered unsuccessful and either did not attempt to nest, abandoned their nest, lost their nest to predation or disturbance, or had no poults survive due to predation, exposure, starvation, disease, or flooding.

It is also worth noting that turkeys have high reproductive potential and are normally able to maintain populations despite predation and weather-related factors. Predators and periodic poor weather conditions existed prior to the year 2000 so this more recent and prolonged poor success may be tied to a high number of hens that did not breed successfully or poor fitness, vigor and survival of poults due to genetics, disease, other environmental factors or large-scale changes in habitat. Continued research, surveys and attention to season timing, bag limits and other potential contributing factors is warranted. Both short- and long-term fluctuations up and down are not unexpected given the reproductive strategy of turkeys and the multiple factors that influence their success and survival. This inherent instability is

the reason that annual monitoring is critical for this species. Anyone interested in participating in the annual Summer Turkey Survey is encouraged to sign-up. The survey period is July 1-August 29 annually and those who participate typically spend a reasonable amount of time outdoors during that period. Cooperators obviously must be able to identify wild turkeys and must be comfortable in telling the difference between hens, poults, and gobblers. If you would like to participate in the survey, contact Jay Cantrell at cantrellj@dnr.sc.gov. You will be added to the cooperator list and receive materials at the end of June annually. Those interested in the survey can also download instructions and survey forms at the following website:

<http://www.dnr.sc.gov/wildlife/turkey/volunbroodsurvey.html>

Figure 1. Map of physiographic regions for 2024 Summer Turkey Survey.

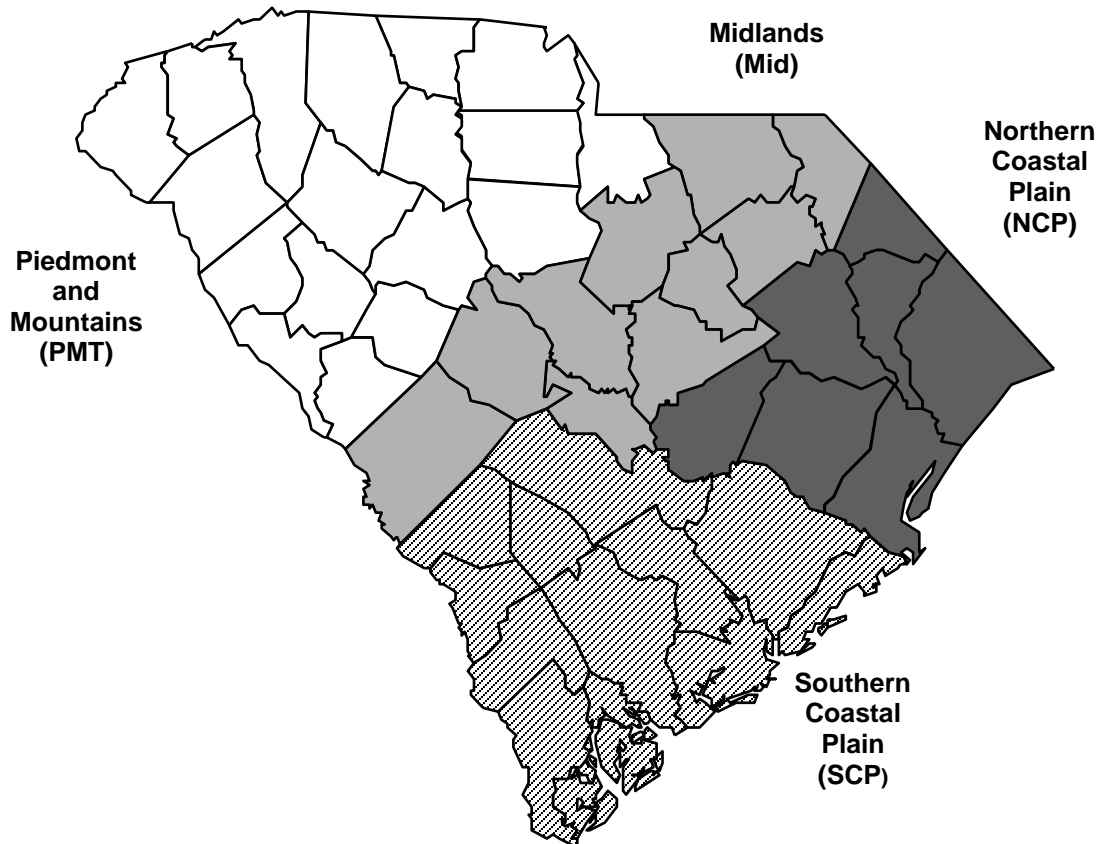


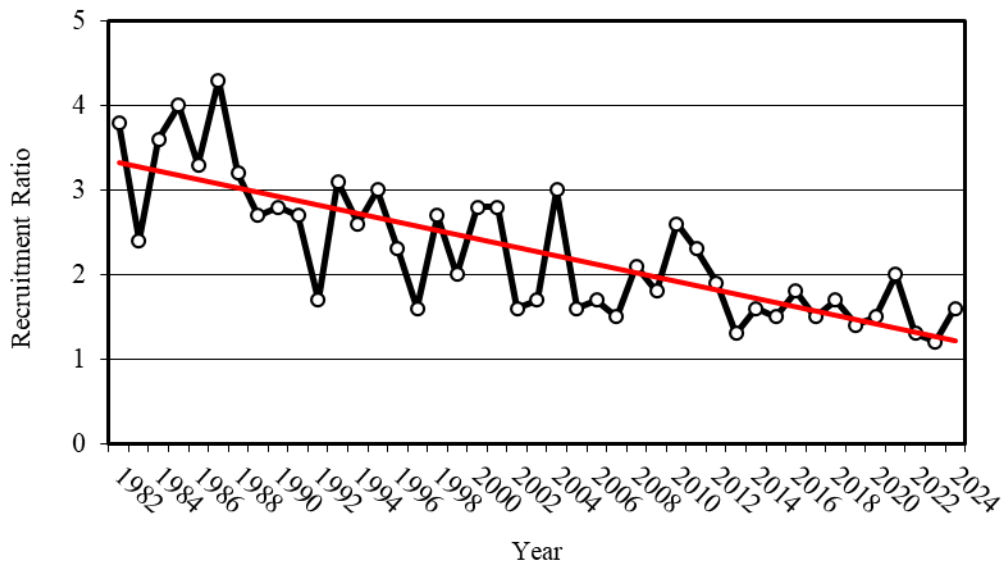
Table 1. Summary of reproductive data for 2024 Summer Turkey Survey by region.

Region	Gobbler/ Hen Ratio	No. Hens w/Poults	No. Hens w/o Poults (%)	No. Poults	Avg. Brood Size	Total Recruitment Ratio
Piedmont & Mtns	0.34	222	284 (56)	793	3.6	1.6
Midlands	0.41	58	129 (69)	195	3.4	1.0
Northern Coastal	0.61	80	110 (58)	334	4.2	1.8
Southern Coastal	0.85	241	240 (50)	818	3.4	1.7
Statewide	0.57	601	763 (56)	2140	3.6	1.6

Table 2. Statewide Summer Turkey Survey reproductive data 2020-2024.

Year	Gobbler/ Hen Ratio	No. Hens w/Poults	No. Hens w/o Poults (%)	No. Poults	Avg. Brood Size	Total Recruitment Ratio
2020	0.54	807	1,225 (60)	2,971	3.7	1.5
2021	0.54	976	978 (50)	3,966	4.1	2.0
2022	0.62	656	1162 (64)	2,290	3.5	1.3
2023	0.68	423	804 (66)	1,493	3.5	1.2
2024	0.57	601	763 (56)	2,140	3.6	1.6
Average	0.59	716	986 (59)	2,572	3.7	1.5

Figure 2. Summer wild turkey recruitment ratio in South Carolina 1982-2024.



SUMMARY OF CURRENT WILD TURKEY RESEARCH IN SOUTH CAROLINA

SCDNR is contributing funding and cooperating on a study entitled “Reproductive Ecology of Wild Turkeys in an Unhunted Population.” This is a joint project between SCDNR, USDA Forest Service-Southern Research Station, University of Georgia, Louisiana State University, and University of Missouri. This research is occurring on the Savannah River Site (SRS) and is focused on evaluating reproductive ecology of a population of wild turkeys not exposed to hunting. Specific objectives include:

1. Determining space use, habitat selection, and survival of male and female wild turkeys
2. Assessing nesting and brooding ecology of female wild turkeys, with a focus on thoroughly describing nesting chronology and behavior of females during laying, incubating, and brooding.
3. Describing vegetative and habitat characteristics associated with nest sites and areas used by brooding females.
4. Spatially and temporally describing gobbling activity and relating gobbling activity to nesting chronology of females and movement ecology of males.
5. Evaluating the genetic mating system of wild turkeys and describe patterns of parentage in clutches of females.

These research objectives have been studied on several other study sites across the Southeast in recent years on populations subjected to hunting (e.g. the recent SCDNR funded project at the Webb Wildlife Center). By conducting parallel research on an unhunted population, we will be able to better assess the impacts of hunting on wild turkeys.

To date a total of 308 turkeys have been captured with 265 being fitted with GPS units. Overall nest initiation by hens is 86 percent with an average date of nest initiation for first nests of April 7. Nest success has averaged 34 percent and brood success 38 percent. These statistics are better than the 2014-2018 Webb Center study in South Carolina and a number of other hunted study sites in the southeast. This project will continue through 2025, and findings will be provided as they become available.

WILD TURKEY PUBLIC LANDS HABITAT ENHANCEMENT PROGRAM

Legislation passed by the SC General Assembly in 2019 created a fee on turkey tags beginning in 2020. The statute calls for a portion of the turkey tag revenue to be used for the improvement of wild turkey habitat and hunting opportunities on public lands. The *South Carolina Wild Turkey Public Lands Habitat Enhancement Program* is a new partnership between SCDNR and the South Carolina Chapter of the National Wild Turkey Federation (NWTF SC). SCDNR turkey tag revenue is combined with funds received from the NWTF SC through their Hunting Heritage Super Fund, dollars generated by local chapter banquets, and other fund-raising events across the state. By joining funds and efforts of SCDNR and NWTF SC, this cooperative cost-share program provides resources to State and Federal land managers to accomplish management projects on public lands open to turkey hunting to benefit wild turkeys and other wildlife on public lands open to hunting in South Carolina.

Annually, a request for proposals (RFP) for the program are made available to public land managers. Project proposals are rated by a committee consisting of SCDNR staff, the NWTF District Biologist, and designees from the NWTF SC Board of Directors. Wild turkey management projects that are considered include habitat/ecosystem restoration, pre-commercial thinning, firebreak installation, prescribed burning, native and exotic vegetation control, creation or expansion of wildlife openings, road daylighting, hunter access improvements, early successional habitat maintenance, planting of annuals, perennials, shrubs, and trees, or other beneficial management practices. Well designed, multi-year habitat projects generally receive higher evaluation scores; however annual project proposals, requested equipment purchases, or other similar projects are not precluded from consideration.

During FY2024, approximately \$134,000 of turkey tag revenue was combined with approximately \$75,000 NWTF dollars to fund 17 habitat enhancement projects. These projects directly impacted over 1,500 acres of publicly hunted turkey habitat on SCDNR, US Fish and Wildlife Service, US Forest Service, US Department of Energy, and US Army Corps of Engineers properties across the state.

SUMMARY OF WILD TURKEY TAG REVENUE AND EXPENDATURES FY2024

Revenue FY2024	\$634,911
Expenditures	
Turkey Tag Administration – tag forms, envelopes, printing, postage	\$129,987
Turkey Hunter Survey – survey form, printing, postage, telephone follow-up, data entry	\$30,470
SC Wild Turkey Public Lands Habitat Enhancement Program	\$134,062
Savannah River Site wild turkey reproductive ecology study	\$296,563
Total Expenditures	\$591,082
Carryover	\$43,829

PREVIOUS WILD TURKEY LEGISLATIVE REPORTS

- [Report on public meetings related to wild turkey declines and options for future management](#)
- [Wild Turkey Resources in South Carolina with Recommendations on Seasons and Bag Limits \(PDF\)](#)
 - [Appendices - 8MB \(PDF\)](#)
- [Wild Turkey Resources in South Carolina 2020](#)
- [Wild Turkey Resources in South Carolina 2021](#)
- [Wild Turkey Resources in South Carolina 2022](#)
- [Wild Turkey Resources in South Carolina 2023](#)