

2011 WILD TURKEY SUMMER OBSERVATION SURVEY REPORT

Evin Stanford
 Surveys and Research Biologist – Deer/Turkey/Boar
 November 04, 2011

A wild turkey observation survey is conducted each summer to gain insight into wild turkey productivity and carryover of gobblers from the previous spring turkey season across the various regions of the state. The 2011 survey participant list included participants from the 2010 survey and new survey participants. The majority of new survey participants were North Carolina members of the National Wild Turkey Federation (NWTF), whose contact information was provided by the North Carolina State Chapter of the NWTF. Personnel from the North Carolina Wildlife Resources Commission, the North Carolina Forest Service, the US Forest Service, the US Fish and Wildlife Service, several military bases, NWTF members, numerous sportsmen, and other individuals interested in the management of our state's wild turkey resource participated in the survey. The 2011 survey was mailed to 4,597 participants, which was an increase of 394% from the number of participants in the 2010 survey. NWTF members represented 3,653 (79%) of survey participants for the 2011 survey.

Observations made during the course of routine daily activities were recorded from July 1 through August 31. A total of 680 participants responded to the 2011 survey. Data collected were compiled and analyzed to determine a productivity index from poult per hen ratios and to evaluate carryover of gobblers from gobbler per hen ratios. The following tables summarize the data received for 2011.

Table 1. 2011 Wild Turkey Summer Observation Survey Data.

Region	Observations	Hens W/O Poults	Hens W/ Poults	Total Hens	Total Poults	Total Gobblers	Total Unk.
Coastal	1,538	1,091	1,557	2,648	5,413	1,530	1,758
Piedmont	1,925	1,277	1,876	3,153	7,289	1,612	1,265
Mountains	1,175	912	1,314	2,226	4,360	973	650
State	4,638	3,280	4,747	8,027	17,062	4,115	3,673

Table 2. 2011 Wild Turkey Summer Observation Survey Results.

Region*	% Hens W/ Poults	Poults/Hens W/ Poults	Poults/Hen Ratio	Gobbler/Hen Ratio
Coastal	59%	3.5	2.0	0.58
Piedmont	59%	3.9	2.3	0.51
Mountains	59%	3.3	2.0	0.44
State**	59%	3.6	2.2	0.51

*Geographical regions, not NCWRC regions.

**The State percentages and averages in Table 2 were calculated by weighting the regional data by the percentage of the total wild turkey population within each region (Coast – 33%, Piedmont – 43%, Mountains – 24%).

The percentage of hens observed with poults is an indication of nesting success, while the ratio of poults to hens observed with poults (previously called poults/brood) is an indication of poult survival. Overall productivity is determined by the ratio of poults/hen. A ratio of 2.5 poults/hen is considered good productivity.

A total of 32,877 wild turkeys was observed during this summer's survey. Statewide, the percentage of hens with poults (59%) indicates fair nesting success; the ratio of poults/hens observed with poults (3.6) indicates fair poult survival; and the ratio of poults/hen (2.2) indicates fair overall productivity. Wild turkey productivity was slightly down in Coastal and Mountain Regions when compared to 2010, but was up 35% in the Piedmont Region. The Coastal Region experienced fair nesting success (59% of the hens were with poults), fair poult survival (3.5 poults/hens with poults), and poor to fair overall productivity (2.0 poults/hen). The Piedmont Region experienced fair nesting success (59% of the hens were with poults), fair to good poult survival (3.9 poults/hens with poults), and fair overall productivity (2.3 poults/hen). The Mountain Region experienced fair nesting success (59% of the hens were with poults), fair poult survival (3.3 poults/hens with poults), and poor to fair overall productivity (2.0 poults/hen).

Figure 1. 2011 Wild Turkey Summer Observation Survey Productivity Results by Region.

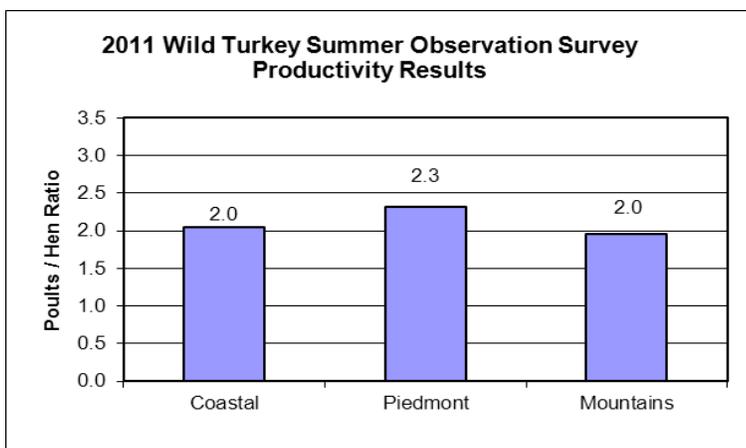
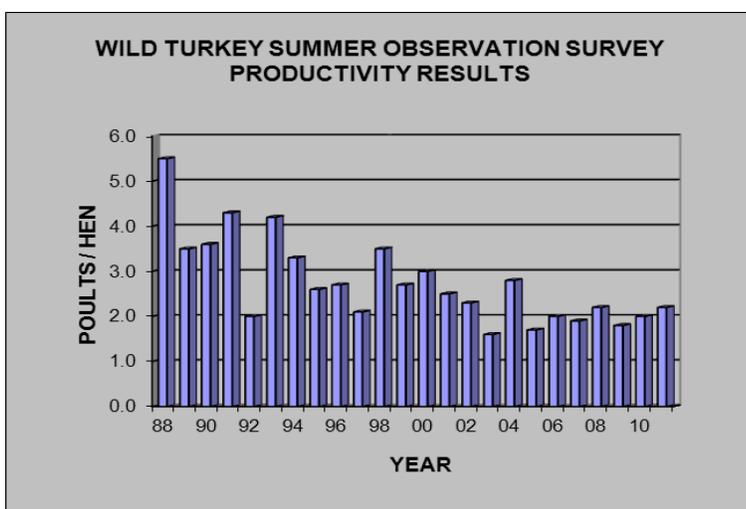


Figure 2. Wild Turkey Summer Observation Survey Statewide Productivity Results, 1988-2011.



The observed ratio of gobblers/hen indicates the level of carryover of gobblers from the previous spring turkey season. Some states use a minimum benchmark of 0.50 gobblers/hen. A ratio of less than 0.50 gobblers/hen may be an indication of over-harvest of the male segment of the turkey population if quality spring gobbler hunting is the management goal.

Statewide, the ratio of gobblers/hen for 2011 was 0.51 (regional ratios are provided in Table 2). The average ratio for the last ten years is 0.49 gobblers/hen, while the average ratio for the last five years is 0.50. These data indicate that, if quality spring gobbler hunting is to be maintained, additional pressure should not be placed on the male segment of the wild turkey population by increasing the season length, opening the spring season earlier, or increasing the bag limit.

Figure 3. Carryover of Gobblers, 1997-2011.

