

# 2013 WILD TURKEY SUMMER OBSERVATION SURVEY REPORT

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 November 21, 2013

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 2013 survey was mailed to 3,733 participants, which was an increase of 2% from the number of 2012 survey participants. The 2013 survey mailing list included previous survey respondents from the last 3 surveys (2010 - 2012 surveys), as well as new survey participants. The majority of new survey participants consisted of individuals in North Carolina that were members of the National Wild Turkey Federation (NWTF). Contact information for these individuals was provided by the North Carolina State Chapter of the NWTF. Other survey participants included personnel from the North Carolina Wildlife Resources Commission, numerous sportsmen, and other individuals interested in the management of our state's wild turkey resource.

Observations made during the course of routine daily activities were recorded from July 1 through August 31. A total of 691 participants responded to the 2013 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 2013.

Table 1. 2013 Wild Turkey Summer Observation Survey Data.

Region	Observations	Hens W/O Poults	Hens W/ Poults	Total Hens	Total Poults	Total Gobblers	Total Unk.
Coastal	1,954	1,458	1,948	3,406	6,162	2,137	2,243
Piedmont	2,119	1,771	1,443	3,214	4,581	2,014	1,976
Mountains	964	729	890	1,619	2,674	950	769
<b>State</b>	<b>5,037</b>	<b>3,958</b>	<b>4,281</b>	<b>8,239</b>	<b>13,417</b>	<b>5,101</b>	<b>4,988</b>

Table 2. 2013 Wild Turkey Summer Observation Survey Results.

Region*	% Hens W/ Poults	Poults/Hens W/ Poults	Poults/Hen Ratio	Gobbler/Hen Ratio
Coastal	57%	3.2	1.8	0.63
Piedmont	45%	3.2	1.4	0.63
Mountains	55%	3.0	1.7	0.59
<b>State**</b>	<b>51%</b>	<b>3.1</b>	<b>1.6</b>	<b>0.62</b>

\*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.

Survey responders reported observing a total of 31,745 wild turkeys during this summer's survey. Statewide, the percentage of hens with poults (51%) indicates poor nesting success; the ratio of poults/hens observed with poults (3.1) indicates poor to fair poult survival; and the ratio of poults/hen (1.6) indicates poor overall productivity. The 2013 statewide productivity index matched the previous record low value also observed in 2012 and 2003, which means statewide productivity has been at the lowest levels ever documented for 2 consecutive years. The Coastal Region experienced fair nesting success (57% of the hens were with poults), fair poult survival (3.2 poults/hens with poults), and poor overall productivity (1.8 poults/hen). The productivity index for the Coastal Region (1.8) tied the 2012 record low value for this parameter. The Piedmont Region experienced poor nesting success (45% of the hens were with poults), fair poult survival (3.2 poults/hens with poults), and a new record low for poor overall productivity (1.4 poults/hen). The Mountain Region experienced poor to fair nesting success (55% of the hens were with poults), poor poult survival (3.0 poults/hens with poults), and poor overall productivity (1.7 poults/hen).

Figure 1. 2013 Wild Turkey Summer Observation Survey Productivity Results by Region.

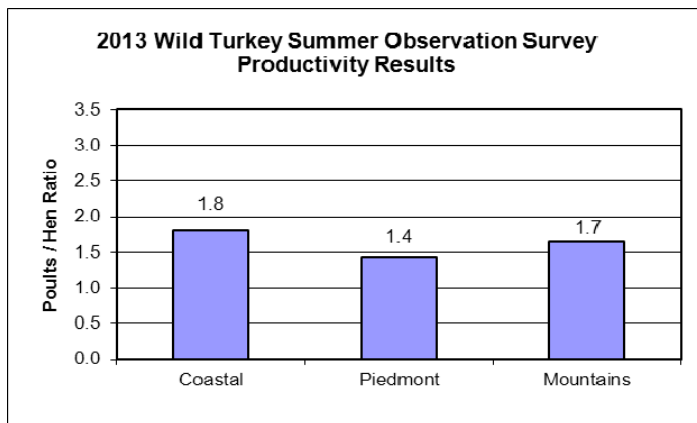
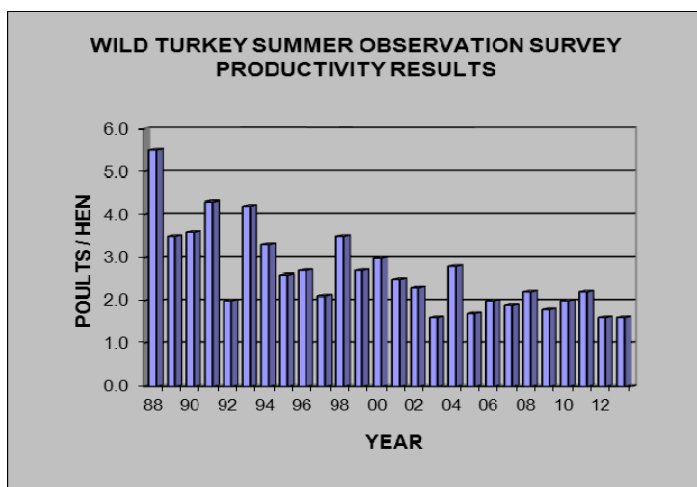


Figure 2. Wild Turkey Summer Observation Survey Statewide Productivity Results, 1988-2013.



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 2013 was a record high 0.62 (regional ratios are provided in Table 2). The average ratio for the last ten years is 0.51 gobblers/hen, while the average ratio for the last five years is 0.54. These long-term 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, 1997-2013.

