

2009 WILD TURKEY SUMMER BROOD SURVEY REPORT

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A wild turkey brood survey is conducted each summer to gain insight into wild turkey productivity across the various regions of the state. The 2009 survey participant list was expanded to include hunters in our agency’s Avid Grouse Hunter Program and subscribers to the *Upland Gazette*. 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, numerous sportsmen, and key private individuals around restoration areas also participated in the survey. The 2009 survey was mailed to approximately 3,000 participants.

Observations made during the course of routine daily activities were recorded from July 1 through August 31. A total of 881 participants responded to the 2009 survey. Data collected were compiled and analyzed to determine a productivity index from poult per hen ratios. The following tables summarize the data received for 2009.

Table 1. 2009 Wild Turkey Summer Brood Survey Data.

Region	Observations	Hens W/O Poults	Hens W/ Poults	Total Hens	Total Poults	Total Gobblers	Total Unk.
Coastal	887	613	921	1,534	3,074	813	1,342
Piedmont	925	646	864	1,510	3,014	678	576
Mountains	914	882	768	1,650	2,494	910	697
State	2,726	2,141	2,553	4,694	8,582	2,401	2,615

Table 2. 2009 Wild Turkey Summer Brood Survey Results.

Region*	% Hens W/ Poults	Poults/Hens W/ Poults	Poults/Hen Ratio	Gobbler/Hen Ratio
Coastal	60%	3.3	2.0	0.53
Piedmont	57%	3.5	2.0	0.45
Mountains	47%	3.2	1.5	0.55
State**	55%	3.4	1.8	0.50

*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 in that region (Coast – 26%, Piedmont – 46%, & Mountains – 28%).

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 18,292 wild turkeys was observed during this summer's brood survey. Statewide, the percentage of hens with poults (55%) indicates poor to fair nesting success; the ratio of poults/hens observed with poults (3.4) indicates fair poult survival; and the ratio of poults/hen (1.8) indicates poor to fair overall productivity. Wild turkey productivity was down in all three geographical regions, compared to the 2008 summer brood survey, with the Coastal and Piedmont Regions fairing somewhat better than the Mountain Region. The Coastal Region experienced fair nesting success (60% of the hens were with poults), fair poult survival (3.3 poults/hen with poults) and poor to fair overall productivity (2.0 poults/hen). The Piedmont Region experienced fair nesting success (57% of the hens were with poults), fair poult survival (3.5 poults/hen with poults) and poor to fair overall productivity (2.0 poults/hen). The Mountain Region experienced poor nesting success (47% of the hens were with poults), poor to fair poult survival (3.2 poults/hen with poults), and very poor overall productivity (1.5 poults/hen). This is the second lowest productivity index on record for the Mountain Region, with the lowest productivity index of 1.4 occurring in 2003.

Figure 1. 2009 Wild Turkey Summer Brood Survey Results.

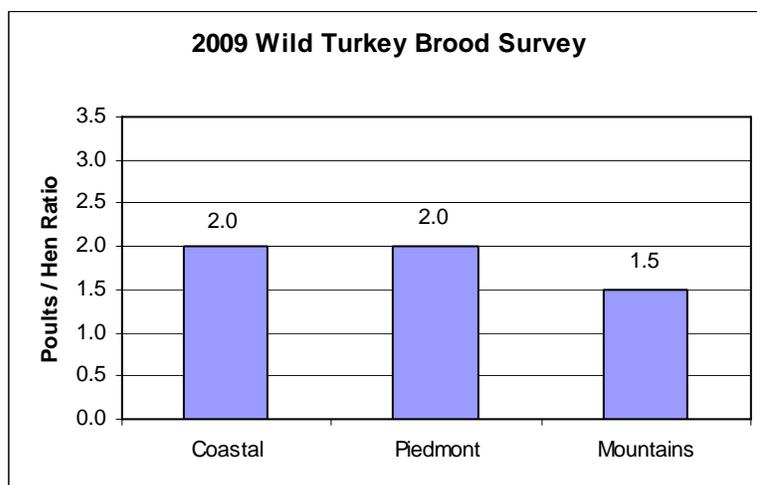
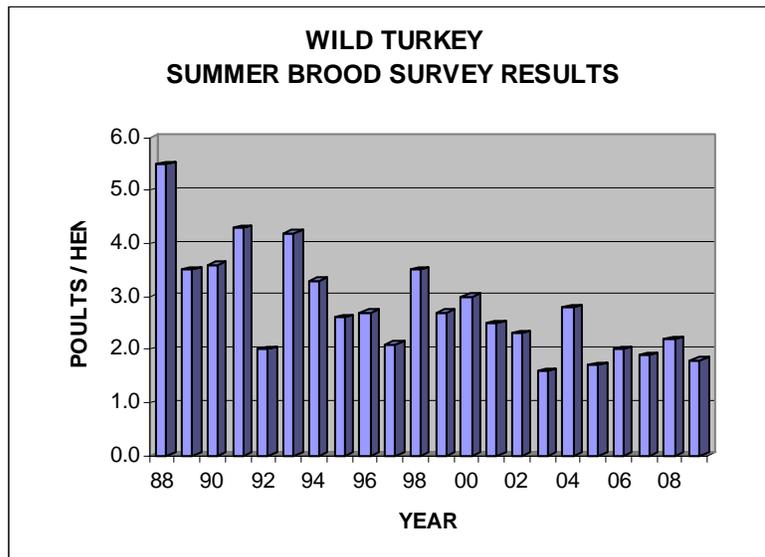


Figure 2. Wild Turkey Summer Brood Survey Results, 1988-2009.



The observed ratio of gobblers/hen indicates the level of carryover of gobblers from the previous spring gobbler 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 2009 was 0.50 (regional ratios are provided in Table 2). The average ratio for the last ten years is 0.47 gobblers/hen, while the average ratio for the last five years is 0.48. 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.

