



NORTH CAROLINA WILDLIFE RESOURCES COMMISSION

2006 WILD TURKEY SUMMER BROOD SURVEY REPORT

David T. Sawyer
 Upland Game Bird Biologist
 October 16, 2006

In order to gain insight into wild turkey productivity over the various regions of the state, a wild turkey brood survey is conducted each summer. The survey was mailed to approximately 1,000 participants. 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, and numerous key private individuals around restoration areas participated in the survey.

Observations made during the course of routine daily activities were recorded during the July 1 through August 31 period. This information was compiled and analyzed to determine a productivity index from the poult per hen ratios. The following tables summarize the data received for 2006.

Table 1. 2006 Wild Turkey Summer Brood Survey Data.

Region	Observations	Hens W/O Poults	Hens W/ Poults	Total Hens	Total Poults	Total Gobblers	Total Unk.
Coastal	364	296	389	685	1,360	327	504
Piedmont	335	229	380	609	1,263	270	156
Mountains	317	268	313	581	1,093	190	140
State	1,016	793	1,082	1,875	3,716	787	800

Table 2. 2006 Wild Turkey Summer Brood Survey Results.

Region*	% Hens W/ Poults	Poults / Hens W/Poults	Poults/Hen Ratio	Gobbler/Hen Ratio
Coastal	57%	3.5	2.0	0.48
Piedmont	62%	3.3	2.1	0.44
Mountains	54%	3.5	1.9	0.33
State**	59%	3.4	2.0	0.41

**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 3.0 poults/hen is considered good productivity.



NORTH CAROLINA WILDLIFE RESOURCES COMMISSION

A total of 7,178 wild turkeys were observed during this summer's brood survey. Statewide, the percentage of hens with poults (59%) indicates fair nesting success; the ratio of poults/hens observed with poults (3.4) indicates only fair poult survival; and the ratio of poults/hen (2.0) indicates fair to poor overall productivity. Wild turkey productivity was similar among the three geographical regions. The Coastal Region experienced fair nesting success (57% of the hens were with poults), fair poult survival (3.5 poults/hen with poults) and fair overall productivity (2.0 poults/hen). The Piedmont Region experienced fair to good nesting success (62% of the hens were with poults), fair poult survival (3.3 poults/hen with poults) and fair overall productivity (2.1 poults/hen). The Mountain Region experienced poor to fair nesting success (54% of the hens were with poults), fair poult survival (3.5 poults/hen with poults), and poor to fair overall productivity (1.9 poults/hen).

Figure 1. 2006 Wild Turkey Summer Brood Survey Results.

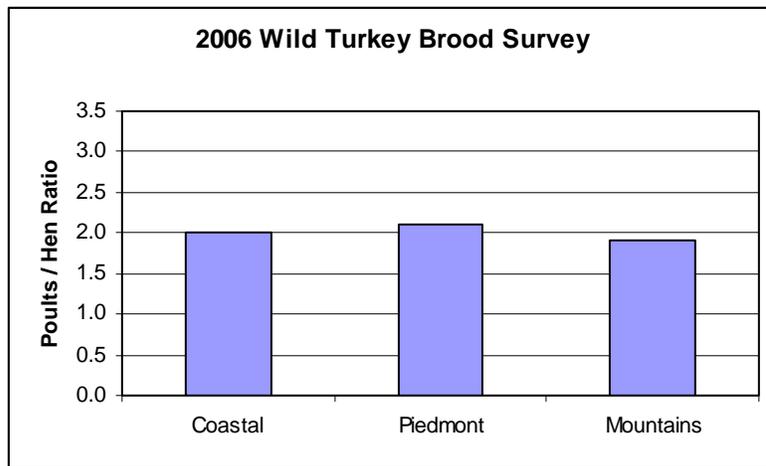
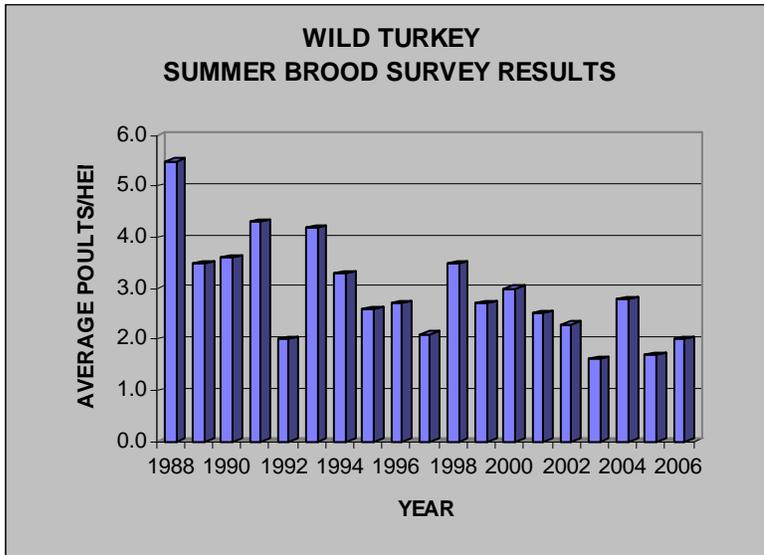


Figure 2. Wild Turkey Summer Brood Survey Results, 1988-2006.



NORTH CAROLINA WILDLIFE RESOURCES COMMISSION



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, this ratio for 2006 was 0.41 gobblers/hen (regional ratios are provided in Table 2). The average ratio for the last ten years is 0.46 gobblers/hen while the average ratio for the last five years is 0.48. These data indicate that 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 if quality spring gobbler hunting is to be maintained.

Figure 3. Carryover of Gobblers.

