



**NORTH CAROLINA WILDLIFE RESOURCES COMMISSION**

**2007 WILD TURKEY SUMMER BROOD SURVEY REPORT**

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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 poult per hen ratios. The following tables summarize the data received for 2007.

Table 1. 2007 Wild Turkey Summer Brood Survey Data.

<b>Region</b>	<b>Observations</b>	<b>Hens W/O Poults</b>	<b>Hens W/ Poults</b>	<b>Total Hens</b>	<b>Total Poults</b>	<b>Total Gobblers</b>	<b>Total Unk.</b>
<b>Coastal</b>	390	220	440	660	1,524	419	424
<b>Piedmont</b>	483	354	468	822	1,532	421	271
<b>Mountains</b>	426	358	480	838	1,348	257	198
<b>State</b>	<b>1,299</b>	<b>932</b>	<b>1,388</b>	<b>2,320</b>	<b>4,404</b>	<b>1,097</b>	<b>893</b>

Table 2. 2007 Wild Turkey Summer Brood Survey Results.

<b>Region*</b>	<b>% Hens W/ Poults</b>	<b>Poults / Hens W/Poults</b>	<b>Poults/Hen Ratio</b>	<b>Gobbler/Hen Ratio</b>
<b>Coastal</b>	67%	3.5	2.3	0.63
<b>Piedmont</b>	57%	3.3	1.9	0.51
<b>Mountains</b>	57%	2.8	1.6	0.31
<b>State**</b>	<b>59%</b>	<b>3.2</b>	<b>1.9</b>	<b>0.48</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 in that region (Coast – 26%, Piedmont – 46%, & Mountains – 28%).

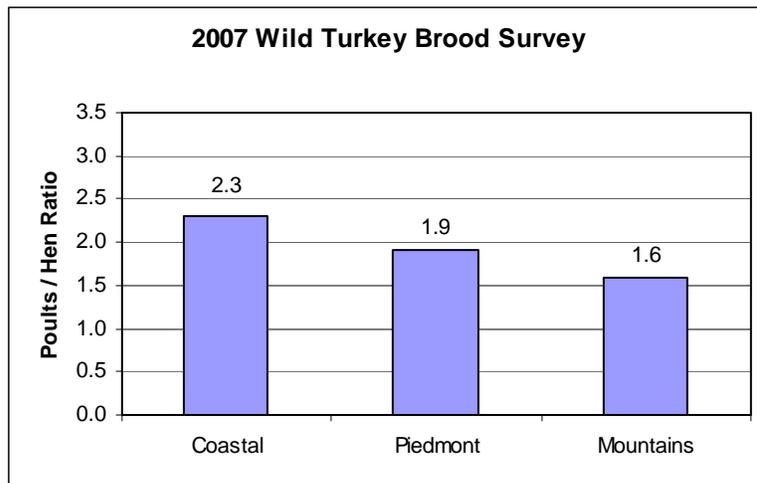


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The percentage of hens observed with poults is an indication of nesting success, while the ratio of poults to hens observed with poults (previously called poults/brood) is an indication of poult survival. Overall productivity is determined by the ratio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

A total of 8,714 wild turkeys was 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 (3.2) indicates only poor to fair poult survival; and the ratio of poults/hen (1.9) indicates poor to fair overall productivity. Wild turkey productivity was highest on the coast and decreased as moving westward through the piedmont and mountains. Weather factors most likely contributed to reduced productivity in some mountain and piedmont portions of the state, particularly extreme cold weather and snowfall that hit some areas in that portion of the state during the early nesting season. The Coastal Region experienced fair to good nesting success (67% of the hens were with poults), fair poult survival (3.5 poults/hen with poults) and fair overall productivity (2.3 poults/hen). The Piedmont Region experienced fair nesting success (57% of the hens were with poults), fair poult survival (3.3 poults/hen with poults) and poor to fair overall productivity (1.9 poults/hen). The Mountain Region experienced fair nesting success (57% of the hens were with poults), poor poult survival (2.8 poults/hen with poults), and poor overall productivity (1.6 poults/hen).

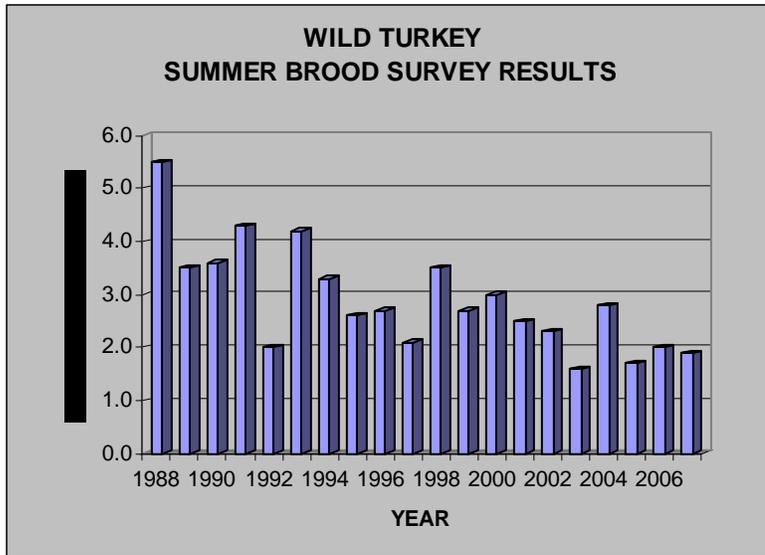
Figure 1. 2007 Wild Turkey Summer Brood Survey Results.





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Figure 2. Wild Turkey Summer Brood Survey Results, 1988-2007.



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 2007 was 0.48 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 0.49. 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.

