Wild Turkey Production and Population Survey Results for 2009

The 2009 hunting season was the 31st year of our annual turkey population survey. The continuing cooperation of turkey hunters has made the survey possible. Your assistance is vital to managing wild turkeys in Georgia. We greatly appreciate this partnership.

Turkey Production Index Survey

This survey was conducted from May through August from 1978 thru 1990. Beginning in 1991, the annual survey period was shortened to June through August. Field personnel of the Game Management, Law Enforcement, and Fisheries Management Sections of the Wildlife Resources Division are involved in data collection. All observations of turkey broods and hens, with and without poults, are reported.

During the summer of 2009, 308 broods were seen, which was down 7.5% from 333 in 2008. However, brood totals alone can be misleading as a measure of production. In past years the number of poults per observer was the best measure or index of relative reproduction success (and ultimately population levels) because it accounted for annual differences in number of observers and poults in broods. Recently, DNR biologists have had a chance to further analyze this long-term set of production data and have determined that the count of ‘Poults + Hens’ may actually be the better predictor for the following seasons hunting population rather than ‘Poults per Observer’. As we have for the past several years, we will continue using both measures to determine which index is the best predictor. The average brood size of 6.3 poults observed in 2009 was 42% less than 2008 (10.9) and 25% less than the previous 5-years average (8.4). The statewide production index of poults per observer (8.0) was 44% less than last years 16.04 and 29.7% less than the 5-year average (12.8). The production index ‘poults + hens’ was 3709 in 2009, which was 27% less than the 2008 index of 5239 and 18.8% lower than the 5-year average of 4570. The average number of poults per hen was 1.1 in 2009 down 52% from 2.3 in 2008 and ties 2007, the lowest production index recorded. This was 27.6% lower than the previous 5-years average (1.52). An average of 3.0 or above is usually considered an indicator of good production in expanding turkey populations. The past several years of production data and harvest data indicate that reproductive levels around 2 poults per hen or slightly less have been able to maintain our current population level for the past 10 years. A production index of 1.1 poults/hen will produce fewer adult gobblers in the population in some turkey populations around the state.

Reproduction data suggests that turkey production was down in many parts of Georgia in 2009. Particularly, reproduction in the coastal plain was down as much as 65% from 2008. This was primarily due to heavy rainfall during the peak incubation periods of May and June. Other parts of the state were down, but not as far from the 5-year average. Data from the Ridge and Valley suggests reproduction may have increased slightly over 2008 numbers. Overall, the turkey population is going to feel the effects of several years of bad reproduction for the next few years.

Hunting Population Index Survey

This survey is conducted during the spring gobbler season with hunt data being supplied by hunter-volunteers.
Specific information requested about each hunting trip from our hunter-cooperators is the date, hours hunted, county or region of the state hunted, the number of turkeys seen, the number of gobblers heard, and the number of gobblers killed.

The hours of hunting effort per turkey observed is used as an index of the hunting population. The correlation between this index and the production index is used in evaluating annual production and resulting hunting season populations.

In 2009, we changed from a mailed packet including: letter, harvest card, and survey newsletter, to a perforated bi-folded harvest card. The front of the card included the cooperator’s address and the back included the harvest card. When the bi-fold was opened, the inside left had brief instructions on completing and returning the card and the location of the previous years results on the DNR website. On the inside right was the DNR address already pre-posted for return. The change was made to try and reduce costs due to budget reductions. We wanted to make the change in a year where we had adequate funds to conduct additional mailings if issues developed. Unfortunately, the perforated bi-fold was too fragile to handle the mailing process. Over 700 cards were mailed a second time due to returns and cooperators reporting that they only received half of the bi-fold card. We changed to a folded, but not perforated, card and had no returns due to the mailing process. Therefore, we believe that the new non-perforated bi-folded card will save time, money, and be logistically capable to provide the information we seek annually. Over the past 10 years (1999-2008) the average return of usable cards was 437. This year (2009) we had 445 usable cards returned (237 were from the original perforated card mailings).

Hunt information in usable form was supplied by 445 of the 2,000 hunters contacted in 2009. They reported making 4,842 trips totaling 17,067 hours. The season hunting effort per cooperator was 10.9 trips totaling 38.4 hours. This is a slight increase from the 2008 season average effort and the 5-year average (10.1 trips and 35.9 hours).

A total of 11,713 turkeys (hens and gobblers) were seen. The 2009 statewide population index of 1.5 hunting hours per turkey seen was 21% less than in 2008. The lowest effort per bird seen was in the Ridge and Valley and Lower Coastal Plain counties.

Cooperators reported hearing 6720 gobblers. The hours of hunting per gobbler heard averaged 2.5 hours. The effort per gobbler heard was least in the Upper Coastal Plain and highest in the Blue Ridge Mountains. Peak gobbling activity, 2.1 gobblers heard per trip, occurred during the first weekend (March 21-22) of the season. The statewide harvest during the first seven days of the 2009 season accounted for 28% of the total season harvest. The average amount of hunting effort to kill a gobbler, 28.7 hours, increased by 6.3 hours from 2008 (22.4) and 4.1 hours from the 5-year average (24.6). Statewide hunter success declined slightly to 64.3% with 280 of the 445 cooperators taking at least one bird and was down slightly from the 5-year average (66.7%). Of these, 128 (28.80%) hunters took or assisted in taking one bird, 76 (17.2%) took or assisted in taking two birds, and 82 (18.4%) took or assisted in taking three birds. Cooperators reported 147 gobblers killed by companions.

**2009 Season Forecast**

According to a post-season telephone survey, Georgia’s estimated 56,118 resident turkey hunters had another good spring season in 2009, harvesting about 27,323 gobblers statewide. The average harvest per hunter (0.49 turkeys) was the same as in 2008 and 7.5% lower than the previous 5 years averaged (.53) However, of the turkey hunters surveyed after the season, 67.9% still rated the turkey hunting good or excellent, while only 9.4% rated it as poor. The turkey population in Georgia has declined since 2003, primarily due to poor reproduction 5 of the last 6 years. We still estimate the population at about 300,000 turkeys and harvest rates are still stable. Reproduction was good in many parts of the state in the summer of 2008. This should mean a lot of vocal 2-year-old birds available for the 2010 season. Unfortunately, reproduction is down again in 2009 due to heavy May rainfall and this will continue to compound lower turkey numbers.