State: Georgia
Grant Number: 08-953
Study Number: 6

LONG RANGE PERFORMANCE REPORT

Grant Title: State Funded Wildlife Survey

Period Covered: July 1, 2008 - June 30, 2009

Study Title: Wild Turkey Production and Population Indices

Study Objectives: 1. To determine annually an index of statewide turkey populations and production success in Georgia.

2. To organize data obtained in a form so that it can be used in sound management of turkeys in Georgia.

Abstract

Recent analysis of long-term production data indicated that a new production index, 'Poults+Hens' instead of 'Poults/Observer' was the better predictor for Hours Hunted/Turkey Seen. Thirty-one percent more Poults+Hens were observed in 2008 (5,239) versus 2007 (4,005) corresponding with the harvest season population index (Hours Hunted/Turkey Seen), which was 21% greater in 2008 (1.5) than 2007 (1.9). With the new analysis an inverse correlation coefficient of r = -0.90 was obtained between the new production index and population indices for the entire survey period which began in 1978. Hunter success decreased to 64.3% in 2009 from 66.8% in 2008. The average number of poults per hen was 2.3 (best since 2002), which was up 102% from 2007 (which was the lowest recorded since the inception of the survey in 1978).

A. Activity:

Job A. <u>Turkey Production Index Survey</u> - This survey was conducted during the months of May through August from 1978 to 1991. Beginning in 1991, the survey period was shortened to June through August when statistical analysis of data indicated the shorter time period was adequate.

Cooperators involved in data collection for this survey were field personnel of the Game Management Section, Fisheries Management Section, Non-Game Section, and Law Enforcement Section of the Wildlife Resources Division. We have also obtained cooperators from the Georgia Forestry Commission. Observations were made during the course of regular field duties. No special efforts were made to locate turkeys for the survey.

Records were maintained of all turkey broods and hens, with and without broods.

Data were compiled on a statewide and physiographic region basis. Historically, the average number of poults seen per observer was the best index of production, however, recent analysis indicated this was not the case with data between 1987-2006. Currently, the best index of production data is estimated Total Poults+Hens.

Job B. Turkey Hunting Population Index Survey –

The hunter cooperators participating in the survey were obtained from names of prospects submitted by WRD personnel and current cooperators. Cooperators were also solicited through newspaper and magazine requests and programs to interest groups. Randomly selected members of the Georgia Chapter of the National Wild Turkey Federation also were contacted to bring the total potential cooperating hunters to 2,000.

This survey is conducted during the regular spring gobbler-hunting season, which begins the first Saturday after March 19 and ends May 15. Specific information requested about each hunting trip was the date, hours hunted, county or physiographic region hunted, the number of turkeys seen, and the number of gobblers heard. Kill information was also requested, but was an optional item. Hunt record forms were supplied to all cooperators.

The number of turkeys observed per unit of hunting effort is used as an index of the hunting season population. The correlation between the population indices and the production indices are used in evaluating annual production and populations and in making comparisons for trends. Data were calculated on a statewide and physiographic region basis.

- B. Target Date for Achievement and Accomplishments:
 - Job A. Planned dates and dates of accomplishment coincide, September 30, 2008.
 - Job B. Planned dates and dates of accomplishment coincide, August 31, 2009.
- C. Significant Deviations:
 - Job A. None
 - Job B. 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. 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). Initially, the new survey format reduced costs, however with additionally mailings for lost or destroyed survey cards through the mailing process not much was saved this year. We have fixed the error in the survey card and believe it will reduce costs annually.

D. Finds:

Job A. In 2008, 333 broods were observed (Table 1). This total is substantially less than in 2006 (426 broods were observed), but is still better than three years ago (2005) of 248 and close to what was observed both last year (336) and 2004 of 354. The average brood size for 2008 was 10.9 poults 73% more than the 2007 average of 6.3. Thirty-one percent more Poults+Hens were observed in 2008 (5,239) versus 2007 (4.005; Table 6).

Examination of poults/observer revealed that statewide it too was greater by 60% for 2008 (16) compared to 2007 (10; Table 3). Poults/observer was up in all physiographic regions from 2007 except for Ridge and Valley (decreased by 29%) and Piedmont (decreased by 10%). The index for Upper and Lower Coastal Plain (UCP [IV] and LCP [V]) increased greater than 270% from 2007. Blue Ridge barely changed, with a 1% increase over 2007.

The number of hens reported totaled 1,604 (Table 4). The percent of hens with poults (50%) was 16% more than the 2007 total (Table 5). The average number of poults per hen, 2.3, increased by 102% from 2007 and therefore production was considered fairgood for 2008 and the highest since 2002 (2.5). Historically, with Georgia's expanding turkey population an average of 3 poults per hen was considered good, however, recent data with a more stable population indicates that productivity threshold of \geq 2.0 poults per hen may be an indicator of good reproductive levels.

Job B. Usable hunt data was supplied by 445 cooperators. Of these 399 came from the permanent cooperator list and 46 from the NWTF list which resulted in a reporting rate (after deleting wrong addresses, deceased, quit hunting, incorrect data collection, etc.) of 36.6% and 5.4% from the permanent and NWTF list cooperators, respectively. These cooperators reported spending a total of 17,067.2 hours hunting (Table 7). The average season hunter effort was 10.9 trips totaling 38.4 hours. They reported observing 11,713 turkeys and hearing 6,720 gobblers. The statewide population index of 1.5 was 21% better than last year (1.9 hrs hunted/turkey seen [the lower the number

the greater the population]; Table 8). The effort per gobbler heard of 2.5 was worse than the 2008 season (2.0; Table 8). The least hunting effort per turkey seen occurred in the Ridge and Valley and Lower Coastal Plain. The effort per gobbler heard was least in Upper and Lower Coastal Plain and greatest in the Blue Ridge Mountains.

Statewide peak gobbling activity, 2.1 gobblers heard per trip, occurred during the first weekend (March 21-22). The next highest periods recorded 1.6 gobblers heard per trip (March 23-27, April 4-5, and April 18-19). All other periods averaged between 0.8 and 1.4 gobblers per trip. For most of the state the greatest amount of gobbling activity was the first 7 days (Mar 21 – March 27; Table 9). Other peaks in gobbling occurred during the second weekend (March 28-29) for the Ridge and Valley, the first and last weekends in April (4-5, 25-26) for the Blue Ridge Mountains, the first and third weekends in April (4-5, 18-19) for the Piedmont, March 30th – April 5th for the Upper Coastal Plain, and the third weekend in April (18-19) for the Lower Coastal Plain.

The statewide gobbler harvest during the first seven days of the season amounted to 28% of the total season harvest, which was lower than both 2008 (35%) and 2007 (36%; Table 10). Peak harvest was generally seen within the first seven days of the season in all parts of the state (Tables 11 and 12).

Similar to previous seasons, the greatest number of trips were made during the first seven days of the season (Tables 13 and 14). Only minor variations in hunting effort measures have occurred over the years.

Hunter success decreased to 64.3% (the second lowest success rate reported since 1995 [2001 = 46.6%]; Table 15) with 286 of 445 hunters reported taking or assisting in taking at least one gobbler (was 66.8% in 2007). Of the successful hunters, 128 (28.8%) took or assisted in taking one bird, 76 (17.1%) took or assisted in taking two birds, and 82 (18.4%; the lowest reported since before 2004; Table 16) took or assisted in taking three birds. Cooperators reported 147 gobblers killed by companions.

The predictive model analysis uses Poults+Hens of the reproductive season during the current year to predict the following years harvest season population index of Hours Hunted/Turkey Seen, where the predictor model (1978-2009) is:

Constant + (Slope *2008 Total Poults+Hens) = 2009 Hours Hunted/Turkey Seen

Therefore:

3.3325 + (-0.00034*5,239) = 1.5 Hours Hunted/Turkey Seen in 2009.

The predicted value of 1.5 equaled what was observed in 2009. A relatively high inverse correlation r = -0.90 was obtained from the comparison of the new nesting

season population index versus the following years harvest season population index.

Jobs A&B

In summary, 2008 overall reproduction was the best in the last 6 years. Based on the 2009 Turkey Hunter Population Index Survey this season was a mixture of good and bad. Hours hunted per Turkey Seen was the best since 2003, which is what you would expect after the best reproductive season in 6 years. Statewide Hours Hunted per Gobbler Heard was the worst since 2002. Hours Hunted per Gobbler Harvested was the second worst since 1996 statewide. Overall, hunter success was the worst since 2001.

More turkeys seen during the hunting season further corroborated that our 2008 reproduction estimate was higher than seen in years. Data from the survey and additional hunter comments revealed that it took considerably longer to hear and harvest an adult gobbler indicating that there were likely fewer adult gobblers available. This shortfall in older, gobbling birds is a further indicator of the poor reproduction we have had for several years preceding summer 2008. As a result of the 2008 reproduction, next season may have a large number of 2-year old gobblers (and hens) with few other older age classes represented. Weather extremes, changes in land management and human population growth rates (several GA counties rank in the top 20 fastest growing nationwide) have negatively impacted and likely will continue to negatively impact turkey populations. We are losing turkey habitat and continuing to suffer wide-scale declines in quality of turkey habitat leading to an overall lower turkey population than occurred in the previous decade. It is becoming more common to have local population declines in certain areas of the state while others are seeing increasing populations, likely a direct result of changing habitat conditions. For these reasons it is critical that we continue to monitor turkey populations closely into the future.

Also, for consideration is that the DNR sets the framework for harvest to allow the flexibility to the hunter to manage their turkey population as they see fit. In other words, if the hunter observes or believes that their turkey population (i.e., adult gobblers) is down then they should consider being conservative on their harvest of turkeys on the property they hunt.

Table 1. Turkey broods and poults observed statewide in Georgia, 1978-2008.

| Year | | Broods | Poul | ts |
|------|-------|--------------|---------------|------------|
| | Total | Poult Counts | Brood Average | Est. Total |
| 1978 | 123 | 82 | 8.6 | 1,058 |
| 1979 | 183 | 160 | 8.6 | 1,565 |
| 1980 | 176 | 169 | 8.4 | 1,479 |
| 1981 | 264 | 241 | 7.6 | 2,006 |
| 1982 | 260 | 218 | 7.7 | 2,002 |
| 1983 | 298 | 261 | 8.8 | 2,622 |
| 1984 | 293 | 247 | 6.8 | 1,992 |
| 1985 | 324 | 274 | 7.2 | 2,333 |
| 1986 | 430 | 377 | 9.4 | 4,042 |
| 1987 | 347 | 328 | 9.7 | 3,366 |
| 1988 | 347 | 321 | 7.9 | 2,741 |
| 1989 | 322 | 306 | 9.0 | 2,898 |
| 1990 | 459 | 278 | 7.6 | 3,488 |
| 1991 | 289 | 213 | 7.1 | 2,039 |
| 1992 | 298 | 274 | 6.8 | 2,027 |
| 1993 | 328 | 303 | 8.2 | 2,676 |
| 1994 | 341 | 316 | 9.4 | 3,209 |
| 1995 | 408 | 386 | 10.4 | 4,209 |
| 1996 | 271 | 239 | 7.5 | 2,033 |
| 1997 | 408 | 304 | 6.5 | 2,613 |
| 1998 | 595 | 534 | 7.0 | 4,185 |
| 1999 | 447 | 364 | 7.1 | 3,170 |
| 2000 | 393 | 358 | 7.2 | 2,809 |
| 2001 | 493 | 431 | 7.0 | 3,017 |
| 2002 | 648 | 618 | 6.0 | 3,894 |
| 2003 | 448 | 448 | 5.9 | 2,619 |
| 2004 | 354 | 354 | 10.6 | 3,733 |
| 2005 | 248 | 248 | 10.0 | 2,469 |
| 2006 | 426 | 426 | 8.4 | 3,579 |
| 2007 | 336 | 336 | 6.3 | 2,116 |
| 2008 | 333 | 333 | 10.9 | 3,635 |

Table 2. Turkey brood observations by physiographic region and month in Georgia, 2008.

| Month | | | Region ¹ | | | Total |
|--------|----|----|---------------------|-----|----|-------|
| | I | II | III | IV | V | |
| June | 2 | 13 | 21 | 20 | 16 | 72 |
| July | 24 | 18 | 22 | 47 | 14 | 125 |
| August | 22 | 10 | 24 | 55 | 15 | 136 |
| Totals | 48 | 41 | 77 | 122 | 45 | 333 |

¹Roman numerals correspond to physiographic regions as follows:

I - Valley and Ridge Lookout Mountain Plateau

II - Blue Ridge Mountains

III - Piedmont

IV - Upper Coastal Plain

V - Lower Coastal Plain

Table 3. Average number of turkey poults seen per observer (production index) in Georgia, 1978-2008

| Physiographi | c | | | | | | | | | | | | | | | _ |
|--------------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Region | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
| I | 4.84 | 0 | 4.80 | 3.45 | 3.52 | 10.30 | 9.09 | 7.20 | 23.19 | 27.87 | 22.10 | 30.70 | 18.92 | 21.19 | 15.93 | 26.75 |
| II | 11.18 | 5.70 | 3.85 | 5.32 | 10.36 | 21.21 | 16.54 | 7.90 | 36.62 | 19.79 | 34.61 | 21.82 | 19.89 | 7.07 | 12.89 | 17.31 |
| III | 7.04 | 8.88 | 11.13 | 12.12 | 14.79 | 20.24 | 11.01 | 15.93 | 22.99 | 23.11 | 18.80 | 21.72 | 23.06 | 20.69 | 15.90 | 22.03 |
| IV | 3.86 | 5.16 | 5.23 | 7.15 | 11.44 | 9.42 | 8.78 | 15.03 | 23.03 | 11.54 | 12.01 | 12.72 | 10.83 | 7.71 | 7.84 | 14.91 |
| V | 6.28 | 7.36 | 3.63 | 8.89 | 5.37 | 5.19 | 6.37 | 10.93 | 13.74 | 6.60 | 9.32 | 8.12 | 20.10 | 5.27 | 10.32 | 11.15 |
| Statewide | 7.50 | 6.33 | 7.31 | 8.72 | 10.77 | 13.29 | 10.02 | 13.07 | 22.42 | 17.31 | 16.05 | 17.53 | 18.88 | 12.01 | 12.39 | 16.39 |

Table 3. Continued.

| Physiograph | ic | | | | | | | | | | | | | | |
|-------------|-------|---------|--------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| Region | 19941 | 9951996 | 5 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | |
| I | 38.68 | 66.3 | 32.3 | 20.8 | 42.9 | 30.3 | 33.6 | 48.8 | 47.3 | 40.27 | 34.65 | 28.96 | 52.27 | 30.73 | 21.94 |
| П | 20.11 | 22.06 | 16.2 | 13.7 | 21.5 | 19.9 | 37.0 | 32.2 | 23.2 | 13.63 | 23.10 | 14.28 | 20.92 | 18.43 | 18.60 |
| Ш | 25.22 | 48.99 | 26.9 | 26.6 | 29.5 | 18.2 | 22.5 | 24.4 | 28.8 | 14.94 | 19.11 | 12.66 | 15.14 | 13.00 | 11.66 |
| IV | 19.17 | 21.0 | 16.5 | 14.1 | 22.6 | 21.2 | 17.4 | 18.9 | 21.7 | 8.55 | 16.18 | 12.10 | 14.62 | 5.30 | 19.61 |
| V | 8.00 | 14.83 | 4.5 | 9.1 | 6.2 | 11.0 | 8.1 | 9.6 | 13.9 | 10.86 | 13.42 | 10.36 | 9.29 | 3.13 | 14.27 |
| Statewide | 20.63 | 31.78 | 18.9 | 16.2 | 22.1 | 17.7 | 18.2 | 21.3 | 24.1 | 13.11 | 18.28 | 12.89 | 15.88 | 10.00 | 16.04 |

Table 4. Turkey hens observed with poults, without poults, and uncertain of accompanying poults statewide in Georgia, 1978-2008

| Year | | Hens Repo | orted | |
|------|-------------|----------------|---------------------|-------|
| | With Poults | Without Poults | Uncertain of Poults | Total |
| 1978 | 145 | 70 | 26 | 241 |
| 1979 | 176 | 131 | 39 | 346 |
| 1980 | 166 | 133 | 15 | 314 |
| 1981 | 276 | 116 | 66 | 458 |
| 1982 | 327 | 136 | 24 | 487 |
| 1983 | 361 | 211 | 72 | 644 |
| 1984 | 261 | 232 | 59 | 552 |
| 1985 | 475 | 251 | 81 | 807 |
| 1986 | 648 | 283 | 84 | 1,015 |
| 1987 | 519 | 230 | 52 | 801 |
| 1988 | 529 | 305 | 59 | 893 |
| 1989 | 459 | 261 | 48 | 768 |
| 1990 | 642 | 371 | 49 | 1,062 |
| 1991 | 321 | 399 | 59 | 779 |
| 1992 | 407 | 490 | 59 | 956 |
| 1993 | 374 | 292 | 41 | 707 |
| 1994 | 463 | 361 | 66 | 890 |
| 1995 | 606 | 301 | 83 | 990 |
| 1996 | 298 | 384 | 74 | 756 |
| 1997 | 560 | 618 | 271 | 1,449 |
| 1998 | 820 | 661 | 236 | 1,717 |
| 1999 | 560 | 753 | 344 | 1,657 |
| 2000 | 734 | 577 | 251 | 1,562 |
| 2001 | 634 | 589 | 337 | 1,560 |
| 2002 | 695 | 644 | 220 | 1,559 |
| 2003 | 795 | 1,113 | 296 | 2,204 |
| 2004 | 930 | 586 | 347 | 1,863 |
| 2005 | 611 | 772 | 257 | 1,640 |
| 2006 | 932 | 864 | 412 | 2,208 |
| 2007 | 645 | 928 | 316 | 1,889 |
| 2008 | 809 | 617 | 178 | 1,604 |

Table 5. Percent of turkey hens accompanied by poults (2nd potential population index) and the average number of poults per hen statewide in Georgia, 1978-2008

| Year | Percent Hens With Poults | Poults Per Hen |
|------|--------------------------|----------------|
| 1978 | 60 | 4.4 |
| 1979 | 51 | 4.5 |
| 1980 | 53 | 4.7 |
| 1981 | 60 | 4.4 |
| 1982 | 67 | 4.1 |
| 1983 | 56 | 4.1 |
| 1984 | 47 | 3.6 |
| 1985 | 59 | 3.6 |
| 1986 | 64 | 4.4 |
| 1987 | 65 | 4.2 |
| 1988 | 59 | 3.1 |
| 1989 | 60 | 3.8 |
| 1990 | 60 | 3.3 |
| .991 | 41 | 2.6 |
| 1992 | 43 | 2.1 |
| .993 | 56 | 3.8 |
| .994 | 56 | 3.6 |
| 995 | 61 | 4.3 |
| .996 | 39 | 2.7 |
| .997 | 39 | 1.8 |
| .998 | 48 | 2.4 |
| 999 | 34 | 1.9 |
| 2000 | 47 | 1.8 |
| 2001 | 41 | 2.2 |
| 2002 | 45 | 2.5 |
| 2003 | 36 | 1.2 |
| 2004 | 50 | 2.0 |
| 2005 | 37 | 1.5 |
| 2006 | 42 | 1.6 |
| 2007 | 34 | 1.1 |
| 2008 | 50 | 2.3 |

Table 6. Estimated Total Poults + hens population indices in Georgia, 1978-2008

| Population | Nesting | Statewide | |
|------------|---------|------------------|--|
| Index | Season | Est. Poults+Hens | |
| | 1978 | 1,299 | |
| | 1979 | 1,911 | |
| | 1980 | 1,793 | |
| | 1981 | 2,464 | |
| | 1982 | 2,489 | |
| | 1983 | 3,266 | |
| | 1984 | 2,544 | |
| | 1985 | 3,140 | |
| | 1986 | 5,057 | |
| | 1987 | 4,167 | |
| | 1988 | 3,634 | |
| | 1989 | 3,666 | |
| | 1990 | 4,550 | |
| | 1991 | 2,758 | |
| | 1992 | 2,983 | |
| | 1993 | 3,383 | |
| | 1994 | 4,099 | |
| | 1995 | 5,199 | |
| | 1996 | 2,789 | |
| | 1997 | 4,062 | |
| | 1998 | 5,902 | |
| | 1999 | 4,827 | |
| | 2000 | 4,371 | |
| | 2001 | 4,577 | |
| | 2002 | 5,453 | |
| | 2003 | 4,823 | |
| | 2004 | 5,596 | |
| | 2005 | 4,109 | |
| | 2006 | 5,787 | |
| | 2007 | 4,005 | |
| | 2008 | 5,239 | |

Table 7. Summary of turkey hunter cooperator data in Georgia, 2009.

| Item | Physiographic Region ¹ | | | | | | | |
|----------------------|-----------------------------------|------|----------|----------|---------|-----------|--|--|
| | I | II | III | IV | V | Statewide | | |
| Total Hunters | 53 | 31 | 248 | 157 | 71 | 445** | | |
| Total Hours | 1,262 | 913 | 8,160.25 | 4,730.15 | 2,001.8 | 17,067.2 | | |
| Total Trips | 384 | 240 | 2,196 | 1,419 | 603 | 4,842 | | |
| Avg. Hours | 23.8 | 29.5 | 32.9 | 30.1 | 28.2 | 38.4 | | |
| Avg. Trips | 7.2 | 7.7 | 8.9 | 9.0 | 8.5 | 10.9 | | |
| Avg. Hrs./Trip | 3.3 | 3.8 | 3.7 | 3.3 | 3.3 | 3.5 | | |
| Total Turkeys Seen | 1,291 | 342 | 4,468 | 3,578 | 2,030 | 11,713 | | |
| Hrs./Turkeys Seen | 1.0 | 2.7 | 1.8 | 1.3 | 1.0 | 1.5 | | |
| Total Gobblers Heard | 511 | 223 | 2,917 | 2,247 | 822 | 6,720 | | |
| Hrs./Gobbler Heard | 2.5 | 4.1 | 2.8 | 2.1 | 2.4 | 2.5 | | |
| Total Kill* | 65 | 20 | 250 | 180 | 80 | 595 | | |
| Companion Killed | 18 | 6 | 47 | 64 | 12 | 147 | | |
| Hours/Kill | 19.4 | 45.7 | 32.6 | 26.3 | 25.0 | 28.7 | | |

¹Roman numerals correspond to physiographic regions as follows:

I - Ridge and Valley

II - Blue Ridge Mountains

III - Piedmont

IV - Upper Coastal Plain

V - Lower Coastal Plain

^{*}includes both gobblers taken and assisted in taking

^{**} less than Regions summed because some hunters hunted in more than one Region

Table 8. Turkey hunting population indices in Georgia, 1979-2009.

| Population | Hunt | | Phys | iographic Re | egion_ | | |
|--------------|--------|------|------|--------------|--------|-----|-----------|
| Index | Season | I | II | III | IV | V | Statewide |
| Hours/Turkey | 1979 | 20.5 | 3.5 | 2.9 | 3.1 | 2.8 | 3.0 |
| Seen | 1980 | 1.6 | 6.0 | 2.9 | 2.6 | 2.4 | 3.1 |
| | 1981 | 1.5 | 4.7 | 2.2 | 3.2 | 2.8 | 2.5 |
| | 1982 | 2.2 | 5.0 | 2.8 | 3.3 | 1.8 | 2.9 |
| | 1983 | 2.5 | 3.1 | 2.2 | 2.0 | 1.9 | 2.3 |
| | 1984 | 2.2 | 4.1 | 2.4 | 1.6 | 1.5 | 2.3 |
| | 1985 | 2.3 | 3.4 | 2.6 | 2.5 | 3.5 | 2.6 |
| | 1986 | 3.2 | 4.6 | 2.3 | 2.0 | 3.4 | 2.5 |
| | 1987 | 4.1 | 2.9 | 2.6 | 1.7 | 2.1 | 2.4 |
| | 1988 | 1.0 | 2.9 | 1.9 | 1.6 | 2.1 | 1.8 |
| | 1989 | 1.7 | 2.3 | 2.3 | 1.6 | 1.2 | 1.9 |
| | 1990 | 1.8 | 2.8 | 2.0 | 1.9 | 1.7 | 2.0 |
| | 1991 | 1.6 | 2.3 | 2.0 | 1.7 | 1.8 | 1.9 |
| | 1992 | 1.4 | 2.7 | 2.4 | 1.7 | 2.3 | 2.1 |
| | 1993 | 2.0 | 4.0 | 2.5 | 1.6 | 1.6 | 2.1 |
| | 1994 | 2.4 | 2.2 | 2.1 | 1.6 | 1.4 | 1.9 |
| | 1995 | 1.7 | 2.2 | 2.4 | 1.8 | 2.0 | 2.1 |
| | 1996 | 1.2 | 1.8 | 1.6 | 1.6 | 1.5 | 1.5 |
| | 1997 | 1.0 | 2.1 | 1.8 | 1.5 | 1.3 | 1.6 |
| | 1998 | 1.0 | 1.9 | 1.9 | 1.7 | 1.4 | 1.7 |
| | 1999 | 0.9 | 2.7 | 1.5 | 1.4 | 1.5 | 1.4 |
| | 2000 | 1.4 | 2.3 | 2.0 | 1.5 | 1.5 | 1.7 |
| | 2001 | 4.2 | 3.4 | 1.3 | 1.7 | 1.4 | 1.7 |
| | 2002 | 3.9 | 3.7 | 1.2 | 2.2 | 1.9 | 2.6 |
| | 2003 | 1.5 | 1.8 | 1.6 | 1.4 | 1.5 | 1.5 |
| | 2004 | 1.1 | 2.2 | 1.7 | 1.2 | 1.3 | 1.4 |
| | 2005 | 1.1 | 2.7 | 2.2 | 1.4 | 1.2 | 1.6 |
| | 2006 | 1.2 | 2.0 | 2.3 | 1.6 | 1.2 | 1.8 |
| | 2007 | 1.2 | 1.6 | 2.0 | 1.5 | 1.0 | 1.6 |
| | 2008 | 1.2 | 2.2 | 2.2 | 1.9 | 1.6 | 1.9 |
| | 2009 | 1.0 | 2.7 | 1.8 | 1.3 | 1.0 | 1.5 |

Table 8. Continued.

| Population | Hunt | | Phys | iographic Re | egion | | |
|---------------|--------|------|------|--------------|-------|-----|-----------|
| Index | Season | I | II | III | IV | V | Statewide |
| Hours/Gobbler | 1979 | 50.7 | 7.3 | 3.3 | 2.1 | 1.8 | 3.2 |
| Heard | 1980 | 2.9 | 4.7 | 3.4 | 2.9 | 9.1 | 3.4 |
| | 1981 | 2.9 | 4.4 | 3.0 | 2.3 | 2.0 | 2.9 |
| | 1982 | 3.1 | 3.6 | 3.0 | 2.3 | 2.3 | 2.9 |
| | 1983 | 4.4 | 2.8 | 3.3 | 2.0 | 2.4 | 2.8 |
| | 1984 | 3.1 | 5.2 | 3.3 | 1.8 | 1.4 | 3.0 |
| | 1985 | 2.4 | 4.2 | 2.9 | 1.8 | 3.0 | 2.6 |
| | 1986 | 2.6 | 3.4 | 2.1 | 1.3 | 1.6 | 2.0 |
| | 1987 | 2.2 | 5.2 | 2.4 | 1.7 | 2.0 | 2.4 |
| | 1988 | 1.5 | 2.6 | 2.7 | 1.4 | 1.6 | 2.2 |
| | 1989 | 2.1 | 2.1 | 2.1 | 1.5 | 2.1 | 1.9 |
| | 1990 | 2.3 | 4.2 | 2.5 | 1.7 | 1.7 | 2.2 |
| | 1991 | 2.7 | 5.5 | 2.7 | 2.0 | 2.9 | 2.7 |
| | 1992 | 2.4 | 4.2 | 2.9 | 1.8 | 1.6 | 2.6 |
| | 1993 | 3.2 | 6.3 | 3.6 | 2.1 | 2.7 | 3.1 |
| | 1994 | 3.4 | 6.1 | 3.5 | 1.9 | 2.2 | 2.9 |
| | 1995 | 2.0 | 3.3 | 2.5 | 1.9 | 2.1 | 2.3 |
| | 1996 | 3.3 | 3.5 | 2.7 | 2.0 | 2.1 | 2.5 |
| | 1997 | 2.3 | 5.6 | 2.2 | 1.6 | 2.2 | 2.2 |
| | 1998 | 2.5 | 4.1 | 2.7 | 1.9 | 2.1 | 2.4 |
| | 1999 | 2.7 | 3.7 | 2.8 | 1.7 | 2.0 | 2.4 |
| | 2000 | 2.1 | 3.8 | 2.2 | 1.8 | 1.8 | 2.1 |
| | 2001 | 4.8 | 5.4 | 1.8 | 2.4 | 2.7 | 2.4 |
| | 2002 | 4.2 | 4.9 | 1.6 | 2.8 | 2.6 | 3.2 |
| | 2003 | 1.9 | 2.0 | 1.8 | 2.1 | 1.8 | 1.9 |
| | 2004 | 2.0 | 4.2 | 2.4 | 1.6 | 1.7 | 2.0 |
| | 2005 | 2.5 | 4.3 | 2.9 | 1.8 | 1.9 | 2.4 |
| | 2006 | 2.2 | 3.2 | 2.7 | 1.9 | 1.7 | 2.3 |
| | 2007 | 2.3 | 4.3 | 2.4 | 1.7 | 1.6 | 2.1 |
| | 2008 | 2.9 | 5.4 | 2.4 | 1.7 | 1.2 | 2.0 |
| | 2009 | 2.5 | 4.1 | 2.8 | 2.1 | 2.4 | 2.5 |

Table 8. Continued.

| Population | Hunt | | Phys | iographic R | egion | | |
|--------------|---------|------|---------------|-------------|-------|------|-----------|
| Index | Season | I | \mathbf{II} | III | IV | V | Statewide |
| Hours/Gobble | er 1979 | 96.5 | 79.8 | 35.1 | 27.5 | 23.3 | 35.7 |
| Killed | 1980 | 13.2 | 35.7 | 39.6 | 35.8 | 19.1 | 35.9 |
| | 1981 | 10.7 | 29.5 | 31.0 | 29.9 | 23.0 | 30.7 |
| | 1982 | 25.5 | 90.3 | 29.7 | 30.0 | 19.0 | 31.3 |
| | 1983 | 30.9 | 29.7 | 27.8 | 28.3 | 22.6 | 27.4 |
| | 1984 | 31.1 | 45.8 | 35.3 | 31.4 | 12.8 | 34.0 |
| | 1985 | 22.2 | 48.2 | 38.7 | 24.0 | 32.4 | 33.6 |
| | 1986 | 23.0 | 42.1 | 28.6 | 21.9 | 16.0 | 26.7 |
| | 1987 | 35.4 | 68.3 | 30.4 | 25.8 | 32.1 | 32.1 |
| | 1988 | 17.6 | 25.3 | 35.9 | 18.9 | 18.7 | 28.0 |
| | 1989 | 22.6 | 41.4 | 29.8 | 17.0 | 21.1 | 24.8 |
| | 1990 | 29.8 | 55.2 | 29.3 | 26.4 | 16.3 | 28.3 |
| | 1991 | 42.7 | 48.4 | 36.9 | 24.7 | 23.2 | 33.9 |
| | 1992 | 44.9 | 49.4 | 45.3 | 20.9 | 22.0 | 36.7 |
| | 1993 | 32.2 | 46.5 | 46.0 | 19.8 | 38.7 | 34.9 |
| | 1994 | 36.2 | 42.0 | 36.9 | 20.9 | 18.7 | 30.1 |
| | 1995 | 25.4 | 29.9 | 25.3 | 18.6 | 18.7 | 22.7 |
| | 1996 | 28.9 | 34.1 | 29.3 | 25.9 | 26.0 | 26.8 |
| | 1997 | 28.7 | 38.8 | 31.9 | 19.6 | 20.7 | 27.7 |
| | 1998 | 29.2 | 35.8 | 29.2 | 23.3 | 19.0 | 26.3 |
| | 1999 | 28.0 | 50.6 | 33.6 | 19.1 | 24.2 | 27.8 |
| | 2000 | 27.8 | 34.0 | 28.5 | 22.9 | 23.0 | 26.4 |
| | 2001 | 60.6 | 48.3 | 22.6 | 25.7 | 23.2 | 27.9 |
| | 2002 | 59.7 | 43.6 | 21.1 | 27.6 | 19.2 | 34.2 |
| | 2003 | 21.6 | 22.8 | 26.7 | 26.4 | 25.4 | 25.7 |
| | 2004 | 21.5 | 44.6 | 27.4 | 18.5 | 21.2 | 23.4 |
| | 2005 | 26.3 | 42.3 | 31.0 | 18.0 | 18.1 | 24.4 |
| | 2006 | 20.8 | 40.2 | 31.0 | 21.6 | 16.9 | 25.1 |
| | 2007 | 27.0 | 33.4 | 29.9 | 17.8 | 14.5 | 23.1 |
| | 2008 | 19.6 | 38.7 | 29.9 | 18.6 | 13.2 | 22.4 |
| | 2009 | 19.4 | 45.7 | 32.6 | 26.3 | 25.0 | 28.7 |
| | | | | | | | |

Table 9. Number of gobblers heard per hunting trip in Georgia, 2009.

| Da | nte | • | Physiog | graphic Region | | | Statewide |
|-----------|-----------|-----|---------|----------------|-----|-----|-----------|
| Weekend | Weekday | I | II | III | IV | V | |
| | | | | | | | |
| 3/21-3/22 | | 1.9 | 0.8 | 1.9 | 2.7 | 2.2 | 2.1 |
| | 3/23-3/27 | 1.3 | 1.4 | 1.4 | 1.9 | 1.5 | 1.6 |
| 3/28-3/29 | | 1.8 | 0.4 | 1.2 | 1.2 | 1.4 | 1.3 |
| | 3/30-4/03 | 1.0 | 0.6 | 1.1 | 1.8 | 1.2 | 1.3 |
| 4/04-4/05 | | 1.6 | 1.4 | 1.5 | 1.9 | 1.5 | 1.6 |
| | 4/06-4/10 | 1.5 | 1.1 | 1.2 | 1.3 | 1.1 | 1.2 |
| 4/11-4/12 | | 1.0 | 1.1 | 1.4 | 1.5 | 1.0 | 1.3 |
| | 4/13-4/17 | 0.9 | 1.0 | 1.0 | 1.3 | 1.1 | 1.1 |
| 4/18-4/19 | | 1.4 | 0.8 | 1.5 | 1.7 | 1.8 | 1.6 |
| | 4/20-4/24 | 1.0 | 0.9 | 1.4 | 1.4 | 1.3 | 1.3 |
| 4/25-4/26 | | 1.3 | 1.8 | 1.3 | 1.5 | 1.0 | 1.4 |
| | 4/27-5/01 | 1.0 | 0.8 | 1.4 | 1.1 | 1.2 | 1.2 |
| 5/02-5/03 | | 0.8 | 1.1 | 1.0 | 1.5 | 0.9 | 1.1 |
| | 5/04-5/08 | 1.6 | 0.8 | 0.7 | 0.9 | 0.9 | 0.9 |
| 5/09-5/10 | | 1.4 | 1.0 | 0.9 | 1.1 | 0.9 | 1.0 |
| | 5/11-5/15 | 0.9 | 0.5 | 0.9 | 0.9 | 0.7 | 0.8 |
| Season | | 1.3 | 0.9 | 1.3 | 1.6 | 1.4 | 1.4 |

Table 10. Chronological summary of gobbler harvest in Georgia, 2009.

| Da | nte | Gobblers | % of Seas | son Kill* |
|-------------|-----------|----------|-----------|------------|
| Weekend | Weekday | Killed | Date | Cumulative |
| 0.404.0.400 | | 440 | 4.0 | 40 |
| 3/21-3/22 | | 113 | 19 | 19 |
| | 3/23-3/27 | 54 | 9 | 28 |
| 3/28-3/29 | | 33 | 6 | 34 |
| | 3/30-4/03 | 33 | 6 | 40 |
| 4/04-4/05 | | 47 | 8 | 48 |
| | 4/06-4/10 | 51 | 9 | 57 |
| 4/11-4/12 | | 36 | 6 | 63 |
| | 4/13-4/17 | 37 | 6 | 69 |
| 4/18-4/19 | | 31 | 5 | 74 |
| | 4/20-4/24 | 39 | 7 | 81 |
| 4/25-4/26 | | 18 | 3 | 84 |
| | 4/27-5/01 | 21 | 4 | 88 |
| 5/02-5/03 | | 16 | 3 | 91 |
| | 5/04-5/08 | 16 | 3 | 94 |
| 5/09-5/10 | | 28 | 5 | 99 |
| | 5/11-5/15 | 22 | 4 | 103 |
| Total | | 595 | 103 | 103 |

^{*}over 100% because of rounding

Table 11. Chronological distribution of gobbler harvest by physiographic region in Georgia, 2009.

| Dates | | | Physiographic Region | | | Statewide | |
|-----------|-----------|----|----------------------|-----|-----|-----------|-----|
| Weekend | Weekday | I | II | Ш | IV | V | |
| | | | | | | | |
| 3/21-3/22 | | 17 | 6 | 43 | 32 | 15 | 113 |
| | 3/23-3/27 | 4 | 0 | 30 | 12 | 8 | 54 |
| 3/28-3/29 | | 8 | 0 | 8 | 11 | 6 | 33 |
| | 3/30-4/03 | 3 | 1 | 16 | 9 | 4 | 33 |
| 4/04-4/05 | | 6 | 0 | 18 | 21 | 2 | 47 |
| | 4/06-4/10 | 4 | 0 | 21 | 14 | 12 | 51 |
| 4/11-4/12 | | 2 | 2 | 20 | 10 | 2 | 36 |
| | 4/13-4/17 | 3 | 1 | 17 | 12 | 4 | 37 |
| 4/18-4/19 | | 2 | 0 | 15 | 9 | 5 | 31 |
| | 4/20-4/24 | 4 | 1 | 18 | 13 | 3 | 39 |
| 4/25-4/26 | | 3 | 0 | 8 | 6 | 1 | 18 |
| | 4/27-5/01 | 2 | 4 | 11 | 3 | 1 | 21 |
| 5/02-5/03 | | 1 | 0 | 4 | 5 | 6 | 16 |
| | 5/04-5/08 | 0 | 0 | 7 | 9 | 0 | 16 |
| 5/09-5/10 | | 3 | 3 | 6 | 9 | 7 | 28 |
| | 5/11-5/15 | 3 | 2 | 8 | 5 | 4 | 22 |
| Season | | 65 | 20 | 250 | 180 | 80 | 595 |

Table 12. Chronological distribution of gobbler harvest (%) by physiographic region in Georgia, 2009.

| Da | ite | Physiographic Region | | | | | atewide |
|-----------|-----------|----------------------|----|-----|----|----|---------|
| Weekend | Weekday | I | П | III | IV | V | |
| | | | | | | | |
| 3/21-3/22 | | 26 | 30 | 17 | 18 | 23 | 19 |
| | 3/23-3/27 | 6 | 0 | 12 | 7 | 10 | 9 |
| 3/28-3/29 | | 12 | 0 | 3 | 6 | 8 | 6 |
| | 3/30-4/03 | 5 | 5 | 6 | 5 | 5 | 6 |
| 4/04-4/05 | | 9 | 0 | 7 | 12 | 3 | 8 |
| | 4/06-4/10 | 6 | 0 | 8 | 8 | 15 | 9 |
| 4/11-4/12 | | 3 | 10 | 8 | 6 | 3 | 6 |
| | 4/13-4/17 | 5 | 5 | 7 | 7 | 5 | 6 |
| 4/18-4/19 | | 3 | 0 | 6 | 5 | 6 | 5 |
| | 4/20-4/24 | 6 | 5 | 7 | 7 | 4 | 7 |
| 4/25-4/26 | | 5 | 0 | 3 | 3 | 1 | 3 |
| | 4/27-5/01 | 3 | 20 | 4 | 2 | 1 | 4 |
| 5/02-5/03 | | 2 | 0 | 2 | 3 | 8 | 3 |
| | 5/04-5/08 | 0 | 0 | 3 | 5 | 0 | 3 |
| 5/09-5/10 | | 5 | 15 | 2 | 5 | 9 | 5 |
| | 5/11-5/15 | 5 | 10 | 3 | 3 | 5 | 4 |

Table 13. Chronological distribution of turkey hunting trips by physiographic region in Georgia, 2009.

| Dates | | | Physiographic Region | | | | Statewide | |
|-----------|-----------|-----|----------------------|-------|-------|-----|-----------|--|
| Weekend | Weekday | I | II | Ш | IV | V | | |
| | | | | | | | | |
| 3/21-3/22 | | 38 | 17 | 258 | 151 | 80 | 555 | |
| | 3/23-3/27 | 46 | 10 | 212 | 140 | 71 | 466 | |
| 3/28-3/29 | | 27 | 9 | 104 | 69 | 48 | 264 | |
| | 3/30-4/03 | 45 | 17 | 169 | 105 | 45 | 380 | |
| 4/04-4/05 | | 38 | 15 | 169 | 110 | 35 | 367 | |
| | 4/06-4/10 | 15 | 14 | 219 | 119 | 56 | 423 | |
| 4/11-4/12 | | 16 | 14 | 130 | 72 | 33 | 265 | |
| | 4/13-4/17 | 23 | 16 | 138 | 100 | 41 | 318 | |
| 4/18-4/19 | | 16 | 8 | 135 | 82 | 33 | 274 | |
| | 4/20-4/24 | 20 | 19 | 131 | 101 | 44 | 315 | |
| 4/25-4/26 | | 20 | 6 | 94 | 71 | 21 | 212 | |
| | 4/27-5/01 | 22 | 30 | 126 | 68 | 23 | 269 | |
| 5/02-5/03 | | 9 | 11 | 71 | 49 | 23 | 163 | |
| | 5/04-5/08 | 10 | 17 | 67 | 63 | 15 | 172 | |
| 5/09-5/10 | | 11 | 13 | 66 | 51 | 16 | 157 | |
| | 5/11-5/15 | 24 | 24 | 107 | 68 | 19 | 242 | |
| Season | | 384 | 240 | 2,196 | 1,419 | 603 | 4,842 | |

Table 14. Chronological distribution of turkey hunting trips (%) by physiographic region in Georgia, 2009.

| Dates | | | Physiographic Region | | | Sta | Statewide | |
|-----------|-----------|----|----------------------|-----|----|-----|-----------|--|
| Weekend | Weekday | I | II | III | IV | V | | |
| | | | | | | | | |
| 3/21-3/22 | | 10 | 7 | 12 | 11 | 13 | 11 | |
| | 3/23-3/27 | 12 | 4 | 10 | 10 | 12 | 10 | |
| 3/28-3/29 | | 7 | 4 | 5 | 5 | 8 | 5 | |
| | 3/30-4/03 | 12 | 7 | 8 | 7 | 7 | 8 | |
| 4/04-4/05 | | 10 | 6 | 8 | 8 | 6 | 8 | |
| | 4/06-4/10 | 4 | 6 | 10 | 8 | 9 | 9 | |
| 4/11-4/12 | | 4 | 6 | 6 | 5 | 5 | 5 | |
| | 4/13-4/17 | 6 | 7 | 6 | 7 | 7 | 7 | |
| 4/18-4/19 | | 4 | 3 | 6 | 6 | 5 | 6 | |
| | 4/20-4/24 | 5 | 8 | 6 | 7 | 7 | 7 | |
| 4/25-4/26 | | 5 | 3 | 4 | 5 | 3 | 4 | |
| | 4/27-5/01 | 6 | 13 | 6 | 5 | 4 | 6 | |
| 5/02-5/03 | | 2 | 5 | 3 | 3 | 4 | 3 | |
| | 5/04-5/08 | 3 | 7 | 3 | 4 | 2 | 4 | |
| 5/09-5/10 | | 3 | 5 | 3 | 4 | 3 | 3 | |
| | 5/11-5/15 | 6 | 10 | 5 | 5 | 3 | 5 | |

Table 15. Turkey hunter success, 1979-2009.

| Harvest | Statewide | |
|---------|----------------|--|
| Season | Hunter Success | |
| 1979 | 56 | |
| 1980 | 63 | |
| 1981 | 57 | |
| 1982 | 61 | |
| 1983 | 66 | |
| 1984 | 65 | |
| 1985 | 64 | |
| 1986 | 73 | |
| 1987 | | |
| 1988 | | |
| 1989 | | |
| 1990 | | |
| 1991 | | |
| 1992 | 63 | |
| 1993 | | |
| 1994 | | |
| 1995 | 70 | |
| 1996 | 70 | |
| 1997 | 70 | |
| 1998 | 70 | |
| 1999 | 67 | |
| 2000 | 66 | |
| 2001 | 47 | |
| 2002 | 74 | |
| 2003 | 68 | |
| 2004 | 69 | |
| 2005 | 65 | |
| 2006 | 69 | |
| 2007 | 68 | |
| 2008 | 67 | |
| 2009 | 64 | |

Table 16. Turkey hunter success (%) by number harvested and/or assisted statewide in Georgia, 1995-2009

| Year | 0 | 1 | 2 | 3+ |
|------|------|------|------|------|
| 1995 | 29.3 | 25.0 | 23.2 | 22.5 |
| 1996 | 30.2 | 26.0 | 20.7 | 23.1 |
| 1997 | 30.1 | 27.1 | 19.5 | 23.3 |
| 1998 | 30.4 | 29.4 | 21.1 | 19.1 |
| 1999 | 32.8 | 27.1 | 19.4 | 19.8 |
| 2000 | 34.1 | 23.8 | 30.0 | 10.3 |
| 2001 | 53.4 | 19.6 | 15.0 | 12.0 |
| 2002 | 25.8 | 53.8 | 15.7 | 11.8 |
| 2003 | 32.0 | 40.2 | 16.3 | 11.4 |
| 2004 | 30.7 | 25.7 | 18.9 | 24.8 |
| 2005 | 34.6 | 26.9 | 17.3 | 21.2 |
| 2006 | 30.9 | 28.2 | 19.1 | 21.8 |
| 2007 | 32.1 | 24.6 | 18.6 | 24.6 |
| 2008 | 33.2 | 26.0 | 17.1 | 23.7 |
| 2009 | 35.2 | 28.8 | 17.1 | 18.4 |