

North Carolina Deer Hunter Observation Survey Results



Thank you! To all the deer hunters from across the state for taking an active part in wildlife conservation and filling out the observation survey! This information provides valuable trend data that supplement other survey, reported harvest, and biological data collected by the N.C. Wildlife Resources Commission (NCWRC) to monitor wildlife and evaluate management actions.

The following is a short summary of statewide results from the North Carolina Deer Hunter Observation Survey (DHOS) that was conducted annually during the 2014-2018 hunting seasons. To view more detailed survey results, please go to our deer webpage, www.ncwildlife.org/deer, and click on Deer Cooperator Programs for a full report. This survey documents where species occur and can provide an index of how wildlife populations can change over time (increase, decrease, or remain stable). A few highlights from the first five years of the survey are noted below:

- Approximately 1,300 deer hunters each year recorded the wildlife they saw on 132,247 hunting trips encompassing 452,429 observation hours.
- Hunters recorded an average of 19.4 hunts per year, averaging 3.4 hours per hunt.
- Deer and gray squirrels were the most commonly sighted species (Table 1).
- Gray squirrel observation rates were highest in the central piedmont region of the state (Figure 5).
- Statewide, hunters averaged seeing 0.8 deer per hunting hour, but rates varied across the state (Figure 1 & 2).
- Turkey were sighted in all 100 counties.
- Male to female or adult to young ratios help biologists understand annual reproductive success of some species like turkey and deer.
- The observed sex ratio for deer was 2.5 adult does to every 1 antlered buck (Figures 3 & 4).
- Hunters recorded approximately 0.6 fawns per every doe, but varied across the state.

Table 1. Statewide observation rates by species group listed in descending order, North Carolina Deer Hunter Observation Survey, 2014-2018.

Animal Type	Animals seen per 1,000 hours
All Deer (<i>including unknown age/sex</i>)	775.8
Gray Squirrel	769.9
Doe Deer	382.9
All Turkey (<i>including unknown beard status</i>)	335.7
Non-Bearded Turkey	171.1
Fawn Deer	168.0
Antlered Buck	153.6
Bearded Turkey	60.8
Raccoon	28.3
Fox Squirrel	17.2
Coyote	13.9
Adult Bear	12.1
Gray Fox	8.2
Cub Bear	6.1
Bobcat	3.4
Red Fox	3.3
Swine	3.3
Doe/Buck	2.42
Fawn/Doe	0.57
Bearded/Non-Bearded Turkey	0.36
Fox Squirrel/Total Squirrel	0.04

Deer Observation Rates

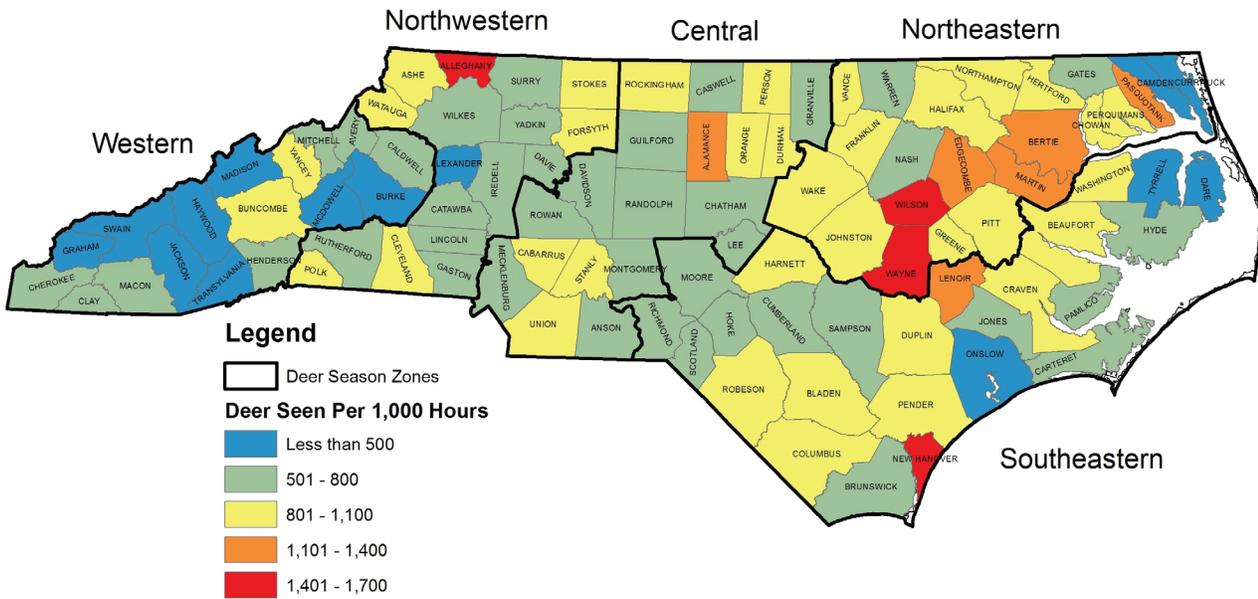


Figure 1. Deer observation rates by county (number of deer seen per 1,000 hours), North Carolina Deer Hunter Observation Survey, 2014-2018. The highest observation rates for deer occurred in the Northeastern season zone (952.8 deer per 1,000 hours) and were lowest in the Western season zone (499.3 deer per 1,000 hours).

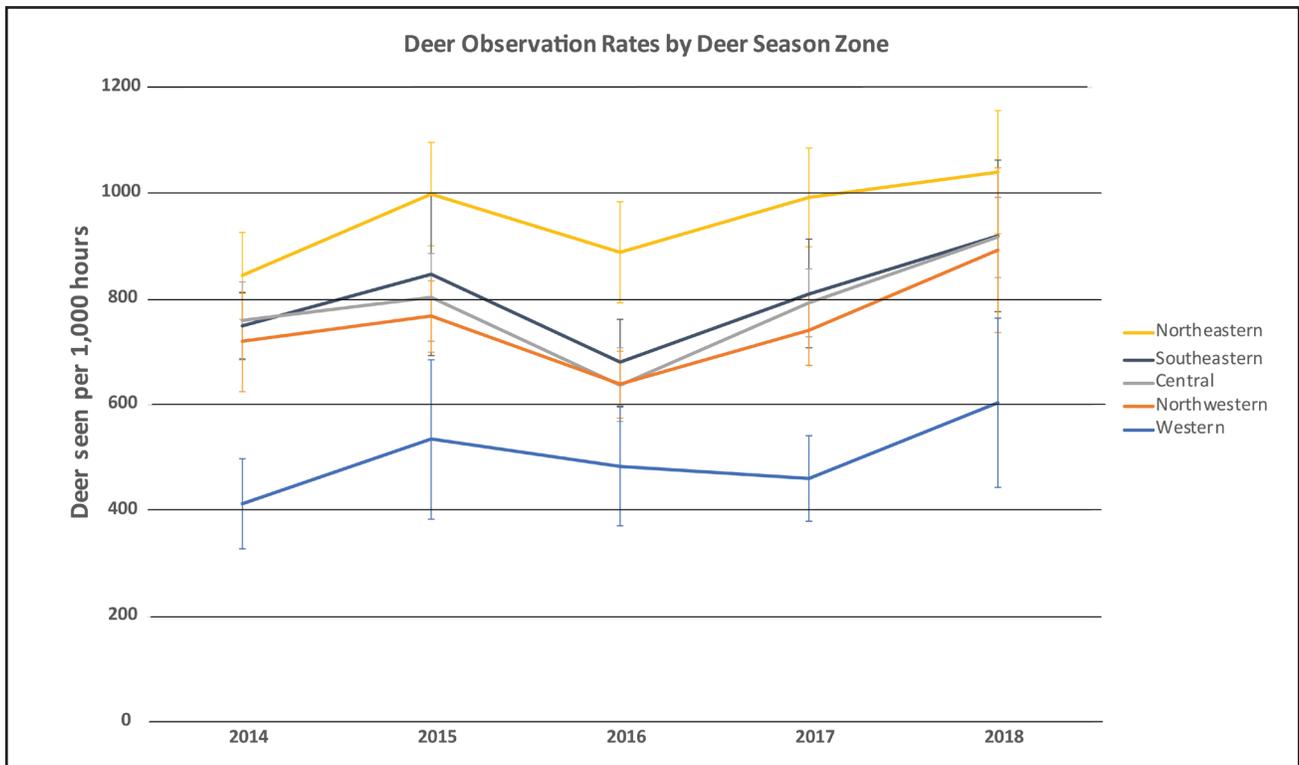


Figure 2. Annual deer observation rates by season zone (number of **deer** seen per 1,000 hours), North Carolina Deer Hunter Observation Survey, 2014-2018. Within the past 5 years, there is evidence that observation rates have increased over time in all five season zones.

Doe Per Buck Ratio

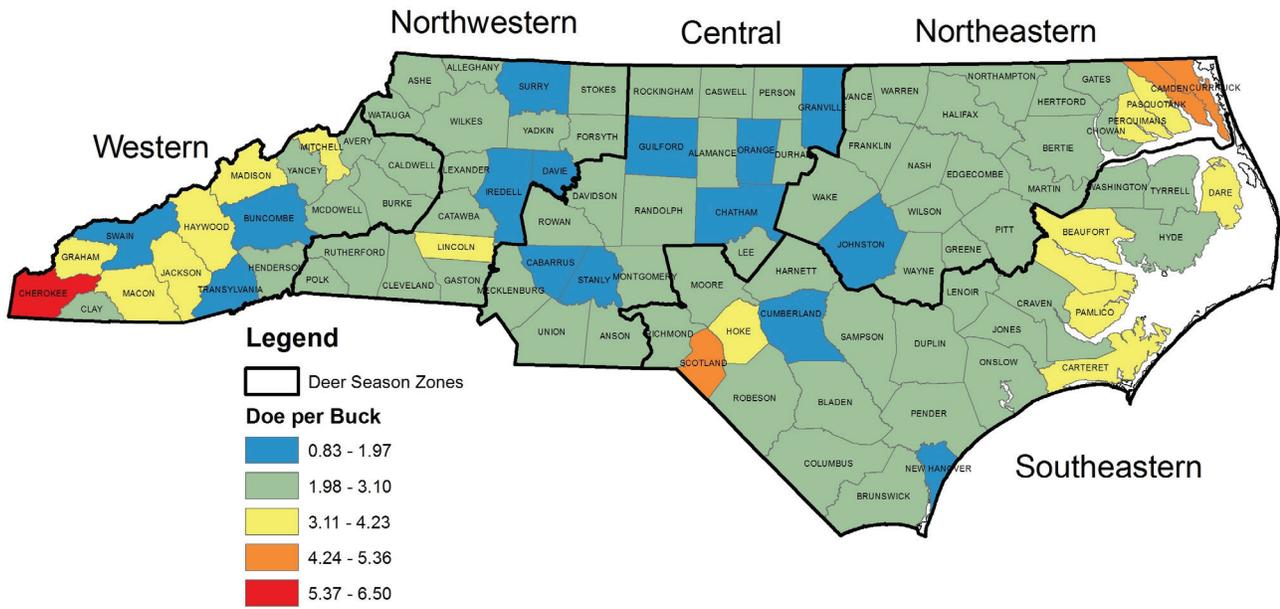


Figure 3. Adult doe per antlered buck observation ratio by county, North Carolina Deer Hunter Observation Survey, 2014-2018. This ratio offers insight into the sex ratio of the deer herd. Since birth rates and survival for male and female fawns are relatively equal, and natural survival of adult males and females is similar, the main influences on this ratio are the harvest rates of males and females. When changes in the ratio are observed over time, harvest management strategies are likely responsible.

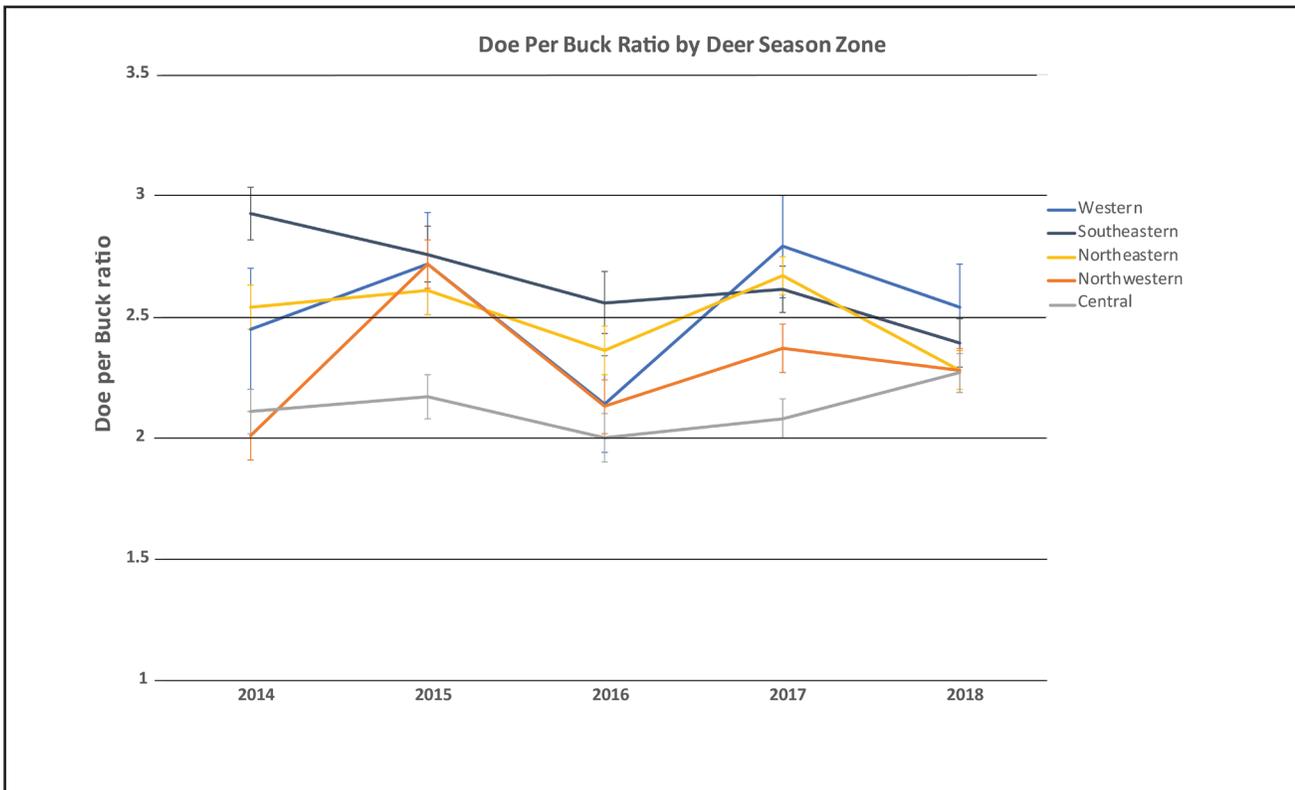


Figure 4. Annual adult doe per antlered buck observation ratios by season zone, North Carolina Deer Hunter Observation Survey, 2014-2018. The average observed statewide doe per buck ratio is 2.42 adult does per antlered buck. There is no evidence that ratios within most season zones have changed within the past 5 years.

Gray Squirrel Observation Rates

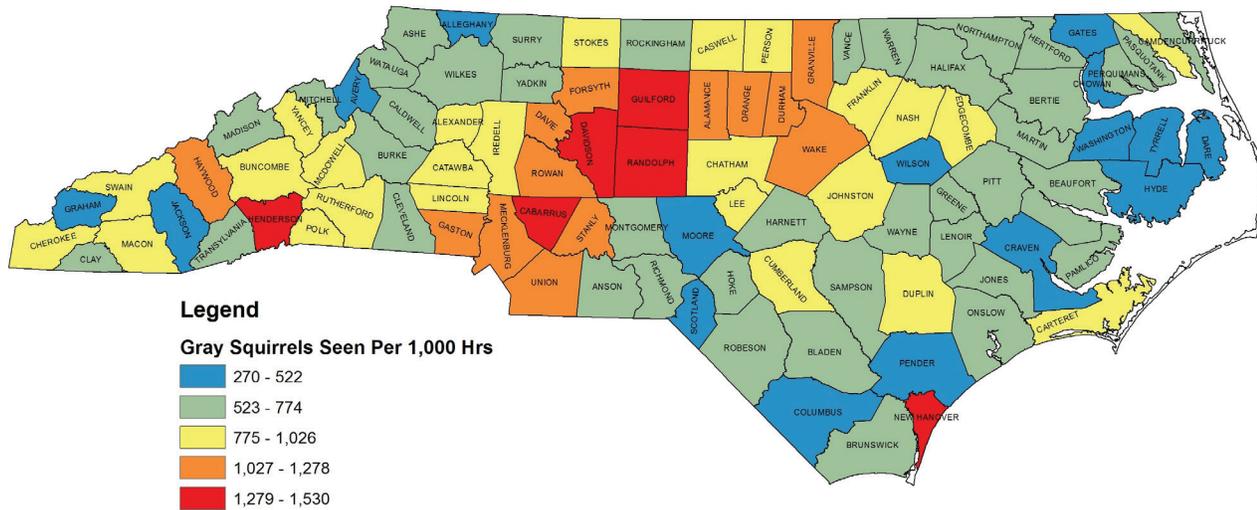
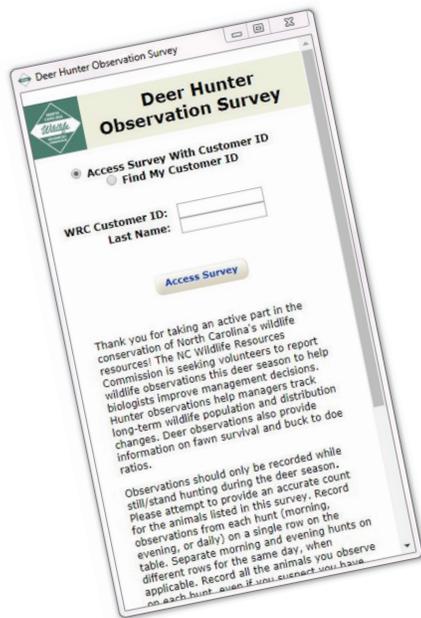


Figure 5. Gray squirrel observation rates by county (number of gray squirrels seen per 1,000 hours), North Carolina Deer Hunter Observation Survey, 2014-2018. Gray squirrels were the second most commonly observed animal type (769.9 squirrels per 1,000 hours) and were seen in all 100 counties. Highest observations rates occurred in the central piedmont of the state, and there is significant evidence that statewide observation rates have increased over time.



*New online/mobile data entry access now available to participants:

Observers now have the option to enter their observations online at: ncwildlife.org/HunterObservationSurvey.

Users can save this survey link to the home screen on their mobile phone for easy access to enter their observations real-time, instead of recording observations on the paper forms.

