



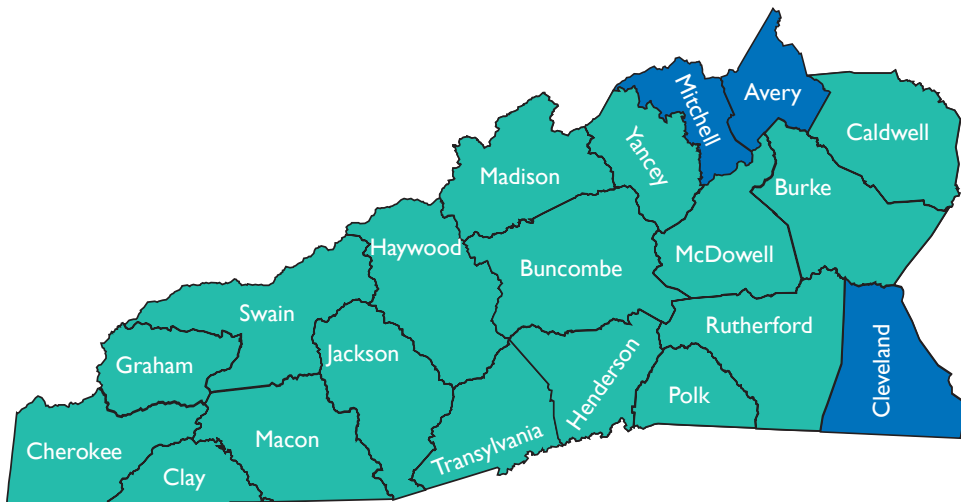
# Three Year Study Sheds Light on North Carolina Deer Seasons

**Thank you hunters!** With your help, North Carolina Wildlife Resources Commission (NCWRC) Biologists and Technicians were able to sample more than 22,500 deer that hunters harvested across the state. We are excited to share what you helped us learn.

## BREAKDOWN OF THE WESTERN DEER SEASON

### What about the rut?

The Western Deer Season consists of portions of 2 biological deer management units (BDMU) with distinct breeding seasons (see diagram below).



- 43% of antlered buck harvest occurs before peak breeding (Nov. 20)
- 76% of antlered buck harvest occurs before peak breeding (Dec 5)

An important herd objective is for **no more than 20%** of the total antlered buck harvest to occur before peak breeding. Neither BDMU meets this biological objective in the Western Deer Season.

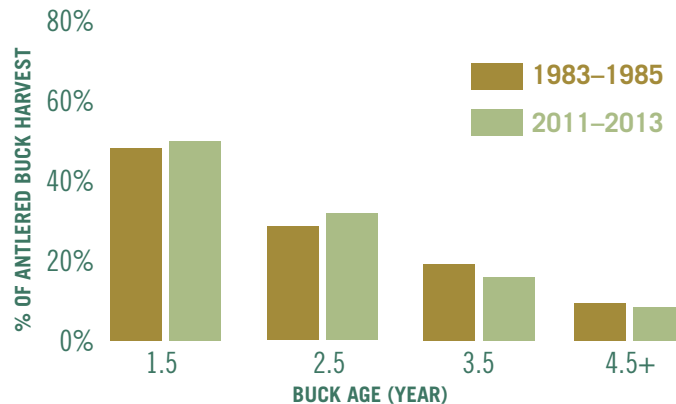
### Why is *timing* of deer season important?

- Yearling (1.5 yr.) buck dispersal
  - Young bucks leave the area they grow up in just before peak breeding and establish a permanent home range elsewhere.
  - Limiting buck harvest before peak breeding allows for this exchange of young bucks across the landscape to occur, **which enables interested landowners to more effectively protect yearling bucks.**
- Optimal fawning dates
  - Unequal harvest of bucks and does before peak breeding can lead to unbalanced breeding season sex ratios. Ideally, the adult sex ratio going into the rut should be balanced (close to 1 buck per doe).
  - Balanced sex ratios ensure that most does are bred at the correct time, and **fawns are born during spring green-up when environmental conditions are favorable.**
  - Balanced sex ratios result in shorter breeding seasons. More fawns born around the same time may improve their odds of avoiding predators.
- More competition** between bucks during the rut can lead to exciting activity in the deer woods!

## How old are the Bucks?

Managing for a buck age structure that adequately represents older age classes also improves balance in the adult sex ratio and increases breeding competition. A biological objective is for no more than 30% of antlered buck harvest to be in the yearling (1.5 yr.) age class. Hunters across most of the state are more selective today than they were 30 years ago resulting in a decrease in yearling buck harvest and increase in 2.5, 3.5, and 4.5+ year old buck harvest. However, this isn't true in the Western Deer Season where buck age structure has not changed much over the last several decades (as represented in the graph below).

**Western Season Age Structure of Antlered Buck Harvest**

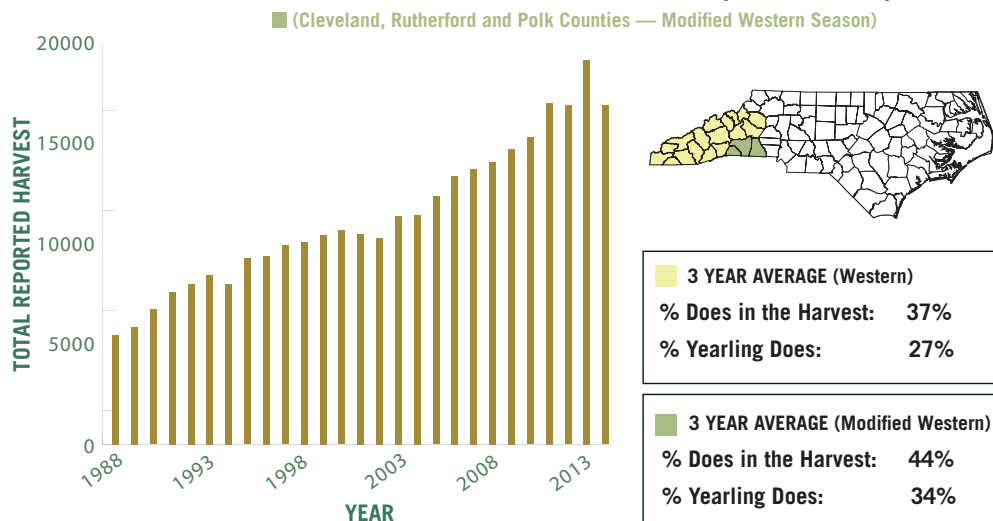


## How is the deer population monitored?

NCWRC biologists track a number of indicators over large areas including:

- The annual reported harvest trend
  - This is a long term trend (increasing, stable, or declining).
- The percent does in the reported harvest
  - Deer are born at a 50/50 male to female ratio; doe harvest >50% would likely lead to some level of population decline.
  - Percent does can change either by shooting more does OR shooting fewer bucks!
- The percent yearling (1.5 year old) does in the adult doe harvest
  - This number is a measure of the hunting pressure placed on the doe segment of the population.
  - Around 30% should result in healthy stable population. A higher percentage may lead to a declining population. A lower percentage indicates hunting pressure is relatively low.

**Western Deer Season Harvest Trend (1988-2014)**



FOR MORE INFO:  
[ncwildlife.org/DeerStudy](http://ncwildlife.org/DeerStudy)