## **Proposed Regulation Changes for Deer Season**

The N.C. Wildlife Resources Commission is proposing changes to the statewide deer hunting regulations for the 2018-2019 season to meet its goal for deer management and hunting "to use science-based decision making and biologically-sound management principles to assure long-term viability of deer populations at desirable levels of health, herd composition, and density with respect to land cover type and use, hunter satisfaction, and overall social acceptance." The proposals are the culmination of 7 years of research that included both biological data, a county-level scientific survey hunters, and two rounds of public forums held across the state in 2015 and 2017. The proposed changes were developed to balance biological improvements to the deer herd and hunter preferences.

The biological evaluation of the statewide deer herd began in 2010 when the Commission directed staff to: delineate deer management units using biological variables; set specific biological objectives for these deer management units; and, if applicable, develop regulations to achieve those objectives as soon as feasible. Biologists were directed to identify data limitations relative to deer management and implement strategies to improve the quantity and quality of deer data. From 2011 to 2014, staff conducted an Evaluation of Deer Hunting Seasons and Management Units in which biological data was collected from 22,560 hunter-harvested adult deer, including data to estimate peak conception dates. This data suggested that the deer herd can be improved by reducing young buck harvest, shifting the timing of harvest later in the year and adjusting doe harvest rates. An example of deer herd improvement is shifting the timing of harvest to later in the year to better balance the doe to buck ratio which will help ensure young bucks have an opportunity to disperse and establish their own home territories and most does are bred during their first estrus cycle, resulting in more fawns born at the same time - close to spring green up. Synchronicity in fawning should also decrease mortality due to predators (e.g., coyotes). The information from the biological evaluation was presented to the public at 9 statewide forums in 2015.

Following the biological evaluation and the public forums, the Commission conducted the 2016 Deer Hunting and Management Survey to determine hunter preferences, including a trade-off evaluation to help understand what hunters feel are the most important components of the deer season and what components are they willing to sacrifice to improve the condition of the deer herd. Through this survey the Commission contacted 196,770 hunters and received 33,750 responses, including enough responses to provide county-level information (range of 53 to 680 responses per county, Figure 1). The survey also follows up on a previous survey in 2006, and indicates that more hunters now believe that deer numbers had decreased in the last three years (Figure 2), 36 percent compared to 15 percent in 2006. Eighty-one percent of respondents are willing to make either minor (42%) or any (39%) changes to improve herd condition.

Analysis of the trade-off responses indicated that the length of the gun season is the most important attribute to hunters, with the lengths and timing of the other seasons being less important. With these preferences in mind, staff identified the highest hunter preference for season attributes (e.g., gun season length, antlerless bag limit, antlered bag limit, length of blackpowder season, and opening of gun season). Comparing these attributes, staff proposed season options balancing hunter preference and biological data to optimize the hunting seasons around the peak of the rut and provide earlier-season opportunities for doe harvest in some areas. In addition, staff proposed changes to both the antlered and antlerless deer bag limits to address appropriate harvest levels and hunter desires.

The results of this analysis and potential season changes that could improve the condition of the deer herd and positively impact the deer hunter's experience were presented at 9 public forums in 2017. The results from the forums were incorporated into the final rule proposals being presented at public hearings in January 2018.

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- Modify statewide deer hunting seasons by establishing five deer season zones (Figure 3).
- Implement deer hunting seasons for each of the five season zones, that include changes to season length and time frames, and antlered and antlerless bag limits. (Note: Archery season opening dates would remain the same, but archery season would last longer in zones where other seasons begin later.)
- Shift either-sex days to the beginning of Introductory, Conservative and Moderate Antlerless Deer Seasons in the western NC counties.

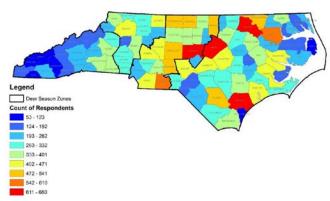


Figure 1. In which NC county is deer management most important to you? Results presented as number of deer hunter responses per county from the 2016 Deer Hunter Survey.

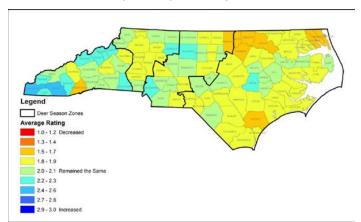


Figure 2. How has the deer population changed during the past three years? Results presented as mean response per county from the 2016 Deer Hunter Survey; 1= Decreased, 3=Increased. "Unsure" responses excluded from mean calculation.



Figure 3. Proposed Deer Season Zones