

## Forestry and Natural Resources

Programs | Services | Resources | County Offices | About Us

CU > Cooperative Extension > FNR > Wildlife > Publications > Fact Sheet 34: White-tailed Deer Biology and Management



## Extension Forestry & Natural Resources

Wildlife & Fisheries Biology - Environmental & Natural Resources - Forest Resources

### White-tailed Deer Biology and Management

Greg Yarrow, Professor of Wildlife Ecology, Extension Wildlife Specialist

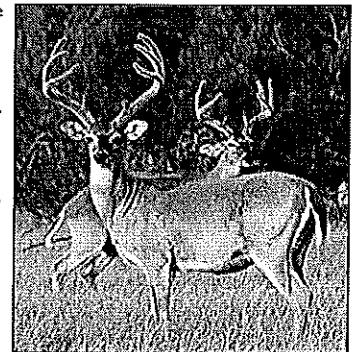
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#### Historical

The flashing of a white, flag-like tail along the edge of a field and into the woods signals the presence of the most popular game animal in the South. Hunting the white-tailed deer (*Odocoileus virginiana*) is a form of recreation that is steeped in tradition and tremendously popular. There is also considerable interest in the aesthetic, economic and educational values of deer as well as the recreational opportunities they provide. Our deer herds are certainly a valuable resource and, with proper management, they will continue to thrive.

In pre-colonial times, the extensive mature forests of the South did not provide optimum habitat diversity necessary to maintain high density deer populations. Deer were locally abundant, in areas where lightning fires and other factors had opened up the dense forest canopy. Natural enemies of deer, such as the cougar and timber wolf, also played a significant part in regulating deer numbers and in keeping them in relative balance with their habitat. As colonial settlement, extensive agricultural production (cotton), and market hunting grew, these factors severely limited deer populations and herds began to decline drastically.

By the early 1900s, deer numbers had reached a low point and the public finally became more concerned about conservation. Game laws were enacted and law enforcement efforts were strengthened. After World War II, a deer restocking program was initiated. Deer were trapped from areas in the lowcountry where adequate populations were present and relocated in suitable areas throughout the state. The screwworm epidemic later placed a major limiting factor upon the growth of deer populations across the Southeast. In 1958, however, the screwworm problem was eliminated, and once again deer herds began the natural expansion of their range. The restoration efforts by state wildlife agencies, solid support of private landowners and the general public, and elimination of the dreaded screwworm enabled the spectacular comeback of the white-tailed deer.



Since vast stands of virgin forest and large predators are gone, few natural factors, except deer themselves, now act to limit deer populations. If factors are not present to limit a population's growth, deer herds become their own worst enemy. The most valuable and preferred food plants are browsed out or eliminated. Deer are then forced to utilize lower preference foods with lower nutritive quality. The problem becomes more complicated with each successive fawn crop. Natural mortality may increase significantly and the population often experiences a reduction in overall health. Unfortunately, when die-offs occur, the habitat has usually been severely damaged and may require many years to recover. This sequence of events occurs as a cycle where factors are not present to regulate a deer population's growth.

Man, however, has assumed the role of many predators. Through regulated hunting, adequate numbers of animals are removed from growing populations each year, keeping deer herds in balance with their habitat. Also, by balancing the deer harvest with the annual fawn crop, relatively stable and healthy populations can be maintained.

#### Life History

In the South, the whitetail is our only native species of deer; however, there are four distinct subspecies. Throughout the southern region there is a noticeable seasonal variation in the coloration of the whitetail. The short, reddish summer coats are shed over a period of several weeks in the early fall, and the heavier, gray or gray-brown winter coat is acquired at this time. The winter coat is replaced through a similar shedding process during the following spring. Fawns normally lose their spotted coloration after 3 or 4 months, or at the time their winter coat replaces their first summer coat.



White-tailed deer are polygamous breeders: one male mates with several females during a breeding season. Breeding occurs during the fall and winter, but may extend from late August through January. Peak breeding usually occurs in November. The gestation period for white-tailed deer is slightly less than 7 months or between 190 and 210 days. Fawning normally extends from March through July with peak fawn-drop occurring in late May.