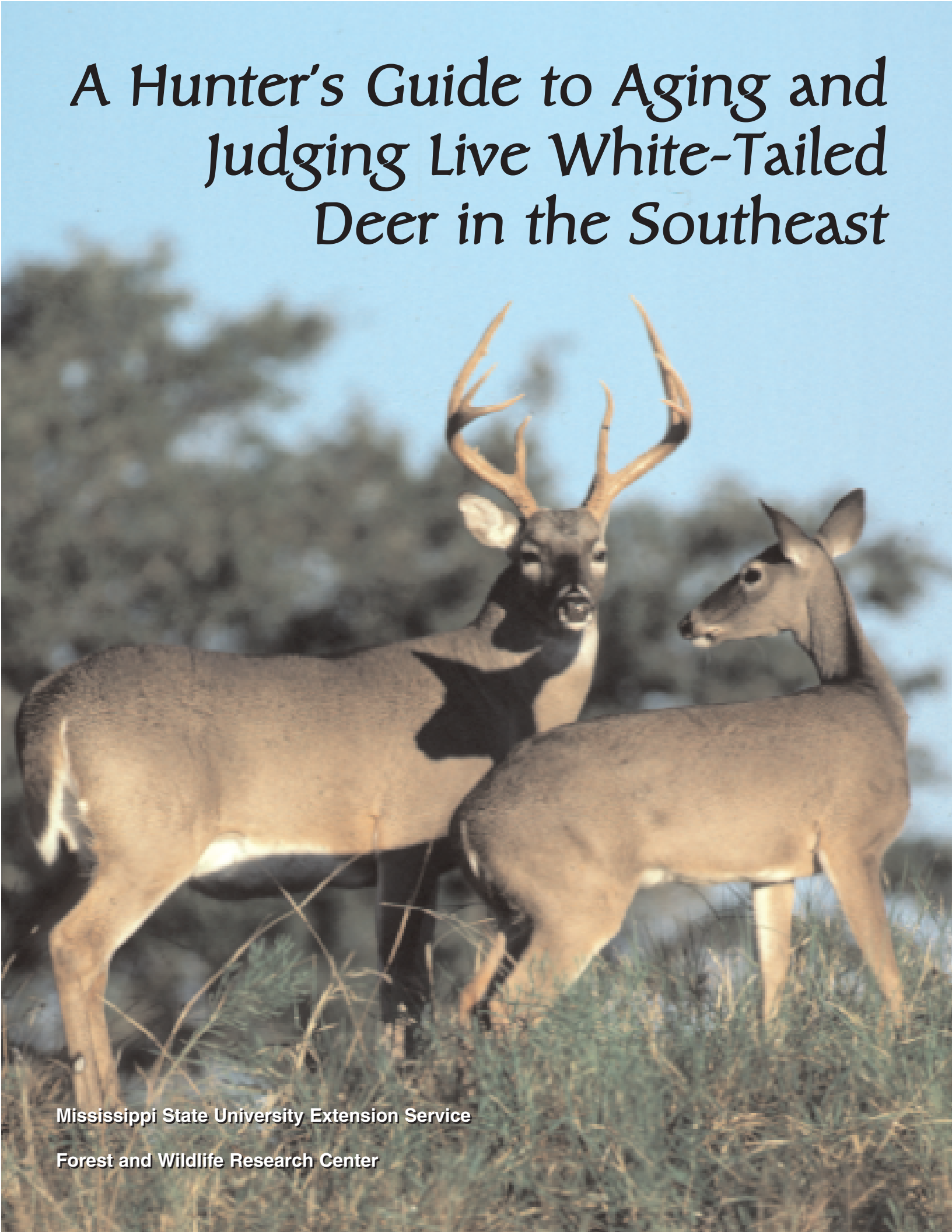
A Hunter's Guide to Aging and Judging Live White-Tailed Deer in the Southeast



Mississippi State University Extension Service

Forest and Wildlife Research Center

The Quality Deer Management Approach

Rapid growth of deer populations, the **over**harvest of bucks, and the **under**harvest of does have created overpopulated deer herds with highly unbalanced sex ratios across the Southeast. These conditions result in a large number of female deer and a limited number of older aged bucks.

Deer overpopulation causes damage to forest vegetation and agricultural crops, threatens human health because of deer-vehicle collisions, and creates unhealthy deer as a result of inadequate food supplies. Because antler development increases dramatically with age, lack of older bucks translates into fewer large-antlered bucks available for harvest.

Correcting overpopulation and unbalanced sex ratios is a goal of many deer managers, hunters, and the general public. Maintaining deer populations within the available food supply and at a more balanced sex ratio with older aged bucks becomes a long-term management activity. This approach to deer management is generally referred to as "quality deer management."

Recreational hunting experiences are improved when hunters take a more active role in making harvest management decisions. Letting young bucks "walk" becomes a rewarding experience and often leads to observation of previously unseen deer behavior.

Managing deer population numbers and sex ratio requires selective harvest. Hunters must refrain from harvest of young bucks and choose to harvest approximately an equal number of bucks and does. In the early stages of a quality deer management program, harvest prescriptions often require higher rates of doe harvest to compensate for past harvest strategies.

Fawn production often increases as overpopulation is corrected, which means there will be more buck fawns that could be mistakenly harvested as does. To be successful in selective harvest, hunters must be able to roughly estimate age of bucks on the hoof and avoid the harvest of buck fawns during doe harvest.

The goal of this publication is to provide a few general physical criteria for aging and sexing deer before harvest. Individual deer variations ensure these criteria will not apply in every case; however, using these criteria will help provide a reasonable expectation of making a correct harvest decision.

A few "mistakes" are expected when applying selective harvest to an intensively managed deer herd. Land managers and hunters should treat honest mistakes as opportunities for learning. The net benefit of a quality deer management program greatly exceeds any ill effects from a few selective harvest mistakes.



Balanced sex ratio and older aged bucks will help fulfill the goals of hunters.

Identifying Does and Fawns

An adequate doe harvest is essential to maintaining population densities within available food supplies and balancing sex ratios. Unfortunately, well-intentioned hunters often mistake buck fawns for does. Harvesting the "nubbin" 6-month-old buck fawns will reduce future antlered buck numbers, so it should be kept to a minimum. Fortunately, there are several ways to differentiate between does and fawns.

Early season bow hunters regularly see spotted fawns. The fawn's spotted coat is normally shed and replaced with a brownish or grayish coat by mid-autumn, although areas with late fawning may still have spotted fawns even during gun season. The fawn's forehead and nose (snout) are shorter than the adult doe's.

Fawn behavior differs from the adult doe's behavior; fawns are more playful, naive, inquisitive, and, in the buck fawn's case, more aggressive. A buck fawn may be the first antlerless deer seen because he is less wary and more inquisitive. The "nubbin" buck has developing antler bases or pedicles (immature antlers) that are difficult to see early in the season but are easier to detect later, particularly from the side.



Body size and snout length differences distinguish the adult doe (right) from her fawn.

Use these following tips to harvest an older doe and to avoid harvesting a buck fawn:

- Do not harvest an antlerless deer that appears alone. Adult does rarely travel alone. Does and fawns normally travel together in social groups, although it is often the buck fawn that enters an opening first. Wait until several deer are together and then look for obvious size differences. Harvest one of the larger antlerless deer.

- Later in the hunting season, it is not uncommon for "orphaned" twin fawns to feed in food plots. Probability dictates one will be a buck and one a doe. In this situation, it is easy to mistake the buck fawn for an adult doe, since it is normally larger than the doe fawn. The doe's head normally is more rounded on top between the ears because the buck's head is flattened by the presence of the pedicles. Close inspection with binoculars looking for the pedicles or antler bases helps avoid harvesting the "nubbin" buck.

- Watch the behavior of deer. Fawns are playful, curious, and not as cautious as adult does.

- Examine the head of deer; check for pedicles on buck fawns, particularly from the side view. Pay attention to obvious fawns throughout the season; look for indications of pedicle development. Do not wait until you are ready to harvest a doe to look for differences between fawns and adult does. Do not harvest antlerless deer with short snouts.

- Look for "wear and tear" signs that typify mature does (for example, ears that appear too short for the head, a swayed back, and a sagging belly). The snout of an adult doe is relatively longer than a fawn's. An adult doe's body is rectangular shaped, while a fawn's body is square shaped.



"Nubbin" buck (left) shows developing antler bases and flattened head. Yearling doe is slightly larger and has a more rounded head.

- If you are not sure of the age, wait to harvest an animal when you can make a more positive identification.

Antler Size Characteristics

Antler size is difficult to judge in the field, particularly under hunting conditions. Harvest decisions often are made hurriedly. A hunter might mistakenly harvest a young, immature buck unless age and antler size can be determined with accuracy. In the Southeast, 1½-year-old bucks rarely exceed a 12- to 13-inch inside spread. Not harvesting bucks with less than a 13-inch inside spread effectively protects the entire yearling age class. Requiring a minimum number of antler points, as practiced in some states, also protects a significant number of yearling bucks. Restricting harvest of bucks not meeting a minimum inside spread criterion and number of points is a common management tool.



Antlers on yearling bucks generally are well within the normal ear tip-to-tip distance.

Use the following tips to judge antler size:

- Ear width—In the normal or relaxed position, the tip-to-tip distance between ears on a buck is about 15 inches. An alarmed deer orients his ears in a forward direction to focus on noises; this alarm behavior reduces tip-to-tip ear width down to about 12 inches. Use ear width to estimate inside spread of antlers if the buck looks in your direction.

- Ear length—The length of a buck's ear from base to tip is about 6 to 7 inches. Use ear length to estimate antler tine length directly. Beam length is difficult to estimate accurately and requires frontal and side views. If inside spread exceeds the relaxed ear tip-to-tip width, then look at the side view. If the antler seen from the side projects forward beyond the midpoint between the eyes and the tip of the nose, beam length of the buck likely exceeds 20 inches.



Typical 15-inch ear width indicates an inside spread of about 17 inches.



Ear position affects perception of antler width. This photo shows the same buck with ears back.

- Number of antler points—

It is almost impossible to see all antler points clearly from any one perspective. Use frontal and side views to get a full count of antler points. It is difficult to see brow tines, except from the frontal position. From the side, count the number of points projecting upward from the main beam. If there are two seen on each side, it will likely be an 8-point buck. If there are three points seen projecting up on each side, it will likely be a 10-point buck.

Physical Characteristics

Whitetails are like people in the sense that the overall body appearance changes with age. The general appearance becomes "more mature" as the buck ages from year to year. By judging the general overall appearance and then focusing on specific body characteristics, it is possible to place bucks into one of several age classes.

Selective harvest to meet the specific needs of individual deer management programs requires that bucks be aged based on general physical characteristics. Specific antler characteristics such as minimum inside spread or minimum number of points can greatly help protect yearling bucks. Antler characteristics alone, however, may not provide the needed level of resolution for all selective harvest applications. For example, many mature bucks' antlers never exceed 8 points and a 16-inch inside spread. Even general appearances change during rut; an older buck may lose up to 25 percent of his body weight due to increased activity and decreased food consumption.





Yearling bucks showing classic "doe with antler" body characteristics and the varied antler size found in this age class.

NOTE: The photographs of 2½- to 6½-year-olds show the antler improvements and body changes of the same buck as he matures.



2½-year-old with relatively thin neck, chest, and waist.

1½-Year-Old Buck (Yearling)

It is often said a yearling buck resembles a "doe with antlers," which makes it relatively easy to discern. The 1½-year-old buck will not have developed the swollen neck and muscular characteristics of older bucks. These bucks tend to have thin hindquarters and long, thin legs. Think of a teenaged boy not yet reaching full height and not nearly "filled in."

Almost all yearlings have an antler spread less than 13 inches. These "teenagers" have not learned to be as secretive as their older associates, so they often enter food plots earlier than older bucks and tend to be in the vicinity of doe family groups. The average size of a buck's antlers doubles between 1½ and 2½ years of age, so it is a good decision to let a yearling buck grow at least another year.

2½-Year-Old Buck

The 2½-year-old group is more difficult than yearlings to judge. A majority of this age group still have antler spreads inside the ears, but some individuals may produce a good set of antlers. During rut, this age class produces a limited amount of neck swelling due to muscle development, and the waist, or area just in front of the back legs, is relatively thin. Their hindquarters are much more filled in than the yearling's, but their legs appear to be "long and lanky." This age class has lots of growing to do before reaching full maturity, so it is best to let them grow at least another year. Their racks are only about 60 percent of the size they will be at 5½ to 6½ years of age.



3½-year-old buck with thickened neck and a "racehorse" appearance.



4½-year-old showing the blending of neck, chest, and waist areas.

3½-Year-Old Buck

The ability to distinguish the 3½-year-old age group is important to a management program emphasizing harvest of mature-aged bucks with maximum antler development. During the rut, the buck's neck is thickly muscled, yet there is still a distinct junction between the neck and shoulders. Some biologists compare its look to that of a well-conditioned racehorse.

The chest region may begin to appear deeper than the hindquarter area; inside spread of antlers typically is at or outside the ears. These bucks can develop impressive antlers, especially on well-managed properties in productive habitats. They are easily mistaken for "mature" deer; in reality, they have reached only about 75 percent of maximum antler development.

4½-Year-Old Buck

White-tailed bucks physiologically mature by 4½ years of age. By this age they have almost all of the adult body mass and have lost the racehorse look. The neck region is fully muscled, giving the appearance of blending into the shoulders, and the waistline is as deep as the chest. Buck activity patterns may have changed by this age because of an increased wariness; they may not venture into open areas until about dark. Physiological maturity is closely associated with the maturing of a buck's antlers. By this age, the average buck will have grown about 90 percent of his total antler size.



6½-year-old showing the undeniable distinctive look of a mature buck.



Notice the declining body condition evident in this overmature buck.

5½- to 6½-Year-Old Buck (Mature or Prime)

Fully matured bucks have a distinctive look that is undeniable once experienced. This publication groups deer 5½ years old and 6½ years old into one age class because few hunters or managers will want to try to differentiate between these animals. Antler size typically peaks at 5½ or 6½ years of age and may deteriorate thereafter, depending on forage conditions.

During the rut, the buck's neck blends completely into his shoulders, and his front half appears to be one large mass. His legs appear shorter than legs of younger deer, but this is an optical illusion because his chest is taking up more of the viewing area. Just as people in middle age, most mature bucks exhibit a sagging belly. Their eyes are squinty in appearance. Mature bucks often show battle scars such as torn ears, broken antler tines, and scratched necks.

7½-Year-Old and Older Bucks

Overmatured bucks are often mistaken for younger animals because some body characteristics tend to revert. Muscularity is lost in the neck area because these animals may not participate as frequently in normal rutting activities. A swayed back and a prominent potbelly are other signs of this aged buck.

Loose skin develops on the neck and head areas as muscle tone declines. Recent battle scars may not be visible, but old scars such as slit ears are evident. A buck's antler size tends to decline with advancing age.

Hunter as Manager

Deer hunters and managers have a wealth of reliable information to incorporate into their management plans. Deer biologists recognize that the future of deer populations in the Southeast depends on the willingness and ability of hunters to make rational and informed harvest decisions. Adequate harvest of does and the use of discretion in harvest of bucks are among relevant management decisions.

Although the harvest process is more of an art than a science, you must base harvest on the best science available and practice the art diligently. This publication provides additional insight into the art of aging and judging live deer and helps sharpen skills needed in making harvest decisions.

Ultimately, the deer hunter becomes the deer manager. Maintaining a healthy deer population should be a goal of any deer management program, whether or not it is based on the "quality deer management concept." This is the responsibility of all hunters, who must consider that, with each harvest, they contribute to the future of this magnificent game animal.



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By **Stephen Demarais, Ph.D.,** Associate Professor, Department of Wildlife and Fisheries; **Dean Stewart**, Extension Wildlife Specialist, Department of Wildlife and Fisheries; and **Robert N. Griffin**, District Administrator, Mississippi Department of Wildlife, Fisheries and Parks.

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