The brush country of South Texas is truly a frontier, and one of its most popular residents is whitetail deer. Numbering in the millions throughout the Lone Star State, whitetails represent our most abundant big-game animal, but nowhere are average antler size greater than on those South Texas denizens.

The hotbed of big buck production in Texas is situated within an irregular triangular-shaped area referred to as the golden triangle. The triangle encompasses all land within a region defined by Eagle Pass east to Cotulla, south to Laredo, with the Rio Grande River representing its western border. Counties within this area, including Dimmit, LaSalle, Maverick, Zavala, and Webb, are nationally recognized for their trophy buck-producing potential. Actually, Webb and Dimmit Counties are recognized as the all-time number one and two record book buck producing counties throughout the United States according to the Boone and Crockett Club.

Why do bucks in this harsh, semi-arid region of thorn scrub develop such large racks? One reason is size of landholdings. Eighty percent of farms and ranches in Texas are less than 500 acres; however, ranches within the triangle have historically been large. Over the last 50 years, fragmentation has reduced overall size of some ranches, but most remain huge when compared to the statewide average.

Large ranches complemented by a strict trespass law have afforded bucks protection from excessive harvest. This conservative buck harvest has relinquished the ultimate component of trophy antler production—age--to exercise its full impact. Bucks within the triangle are able to reach their premium antler-producing years. This fact alone is one of the reasons trophy bucks are abundant.

Deer within the triangle benefit from a diet composed of a diversity of brush species that yield substantial amounts of crude protein, phosphorus, and calcium. A total of 1,558 different vascular plants occur within a 50-mile radius of Corpus Christi alone. Uniquely, a large number of these plant and brush species are preferred by deer. During a year of average precipitation, nutritional value of deer forage can range up to 21% crude protein in some species, like granjeno, particularly in the spring. Even the ubiquitous prickly pear cactus, which contains approximately seven percent crude protein, is fortified with carbohydrate representing an important source of energy for deer. This is particularly important for breeding males during the post rut period when they experience a substantial weight loss. Prickly pear represents a valuable energy source when deer need it most.

The abundance and diversity of plant species occurring within the triangle is dependent on a number of factors none more important than soil type. Within this region is a preponderance of red sandy loam soil. The remainder is composed of clay soils. Sand is more efficient in absorbing rain. This is principally the result of soil particle size, thus size of air spaces. Sand particles are much larger than clay particles, thus less compact and more efficient than clays in absorbing moisture from the excessive rainstorms common in the area. The reverse is true on clay soils as water from intense storms simply runs off with little entering the compacted soil. This is the principal reason red sandy soils produce protein-fortified forbs in abundance, and in South Texas, forb production equates to quality antler production. The "golden triangle" is actually red.

Drought is the triangle's inhabitants' greatest nemesis. The average annual precipitation is around 16 inches with an all-time low of 2.82 inches at Cotulla in 1917.

Annual evaporation rate is excessive at more than 100 inches in Laredo. But in an average rainfall year, with rain occurring throughout the spring and early summer period, antler quality spirals upward—a direct result of the resilient brush and forb species that generate tons of high quality forage proceeding rain showers.

A unique advantage this country does have is a natural population control mechanism. For example, if landowners restrict access, how can they control total deer numbers and maintain balanced sex ratios? Although many landowners desire a balanced harvest, few are successful at removing adequate numbers of does to insure their herds remain within the carrying capacity of the land. This is where predators and periodic droughts play a significant role.

During the fawning season, which peaks around mid July, fawns are subjected to sub par range conditions. Seldom does fawn survival exceed 30%, or 30 fawns per 100 does, compared to the common 80+% experienced in other portions of the state. Spend a July or August in the brush country, and you will see why. With the mercury surmounting the 100 degree mark daily, accompanied by incessant wind, transpiration takes the life out of the vegetation. Forbs shrivel up and brush growth stagnates. Once this occurs, nutritional quality drops. Not only must deer endure intense heat, they must do so on a poor quality diet. This not only affects antler development, but more importantly, herd health, particularly lactating does upon which the fawns depend. Fawn survival is minimal, particularly during the first three months following parturition, July through September, unquestionably the most grueling months of the year.

Drought also reduces standing water and escape cover. As a result, deer are forced to concentrate on fewer water sites, enhancing the coyote's efficiency.

Predation does not cease once drought or summer is over. During the winter, coyotes take advantage of mature bucks worn down or hurt following the rut. The combined effect of drought and predators represents a significant regulatory system on the deer herd.

The trinity of big buck production is age, nutrition, and genetics, and the golden triangle has all three. Brush country whitetails contain the right DNA. The average sum of circumferences per antler is generally 16 inches, which is not extremely heavy, but long, tall, symmetrical tines and long, 25-inch beams which add substantially to the rack's final Boone and Crockett score are characteristics exuded by the desert dwellers. In other words, deer within the triangle are composed of the right stuff, which becomes pronounced in wet years.

Regardless the size of bucks, hunters must be able to find them. The ultimate advantage sportsmen enjoy in South Texas is hunting during the rut. In many states, even portions of Texas, the rut is over prior to the legal rifle hunting season. South Texas sportsmen pursue those mature antler-clad bucks when they are most vulnerable. At no time of the year are mature bucks more active than during the breeding season, enhancing the hunter's opportunity to catch a glimpse of one.

Although trophy-racked bucks have historically occurred in the triangle, land managers and deer hunting enthusiasts continually search for methods to improve deer quality. Armed with the latest knowledge required to develop big deer, particularly when it comes to age and nutrition, present day managers look at their deer herds differently than they did in the 1970's. Today sportsmen are becoming more relaxed in letting young deer walk in order that the animal can reach its optimum antler-producing years of

six years or older. Landowners realizing a substantial economic return from deer are reducing livestock densities and are beginning to take deer into consideration whenever land clearing practices are conducted. Just these basic practices enhance buck quality.

For some Texans and most outsiders, the real reason trophy deer occur in abundance is game proof fencing. But this is not always the case. The construction of game proof fences has escalated over the last ten years, but much of the triangle remains free ranging. Remember, big bucks occurred in the triangle long before high fences. The present day expansion of high-fenced ranches has forced many deer contests to separate entries taken from high fenced ranches versus those taken on open range, and the number of trophy class bucks taken on open range exceeds the number taken from fenced operations.

Now this is not to say that high fences are not effective, but it does mean that a high fence does not guarantee the production of trophy class deer. It is simply another tool managers have to control deer numbers, but without rain or the ability for those bucks to reach maturity, exceptional antler qualities will fail to materialize.

Although the triangle is a natural, big buck producing area, I doubt there is another area on the continent where deer receive as much professional attention.

Wildlife managers in this region continually investigate new methods while reviewing old management practices. Whether it is basic habitat manipulation practices involving roller choppers, aerators, fire, or herbicide, the search for the technique that benefits deer most continues daily.

The golden triangle is Texas' breadbasket for trophy buck production, but that's not to say big deer do not exist elsewhere. As a result of intensive deer management

practices, other portions of Texas have been placed on the same playing field. Just take a look at the Texas big game awards, and you can see some huge racked bucks taken in the Texas Panhandle. Some of Texas' best kept secrets as to where big deer occur are now being discovered. The point is, one doesn't have to hunt the golden triangle to take that trophy buck, but for the betting man, the odds of realizing that dream are nowhere greater than in this red-soiled region.

Captions for slides. All photos by Bob Zaiglin.

- 1. Water continues to play a key role in not only the production of trophy whitetails but their survival as well.
- 2. The red sandy loam soil scattered throughout the triangle insures deer an abundance and variety of nutritious plants.
- 3. When it comes to management-oriented resources, nowhere gets more attention than the brush country.