

# EXOTICS IN TEXAS

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## What is an Exotic?

The term exotic refers to medium to large sized nonindigenous or non-native mammals and birds that landowners have introduced onto Texas ranches and properties in either a confined or free-ranging status. Most of the common species of exotic mammal currently found on Texas ranches fall under one of the following three major scientific families: *Cervidae* (deer), *Bovidae* (cattle and antelope) and *Equidae* (horses and zebras). Exotic birds most likely to be encountered on Texas ranches are the large, flightless species classified as *Ratites* (the ostrich from Africa, emu from Australia and rhea from South America).

## How long have exotics been roaming Texas ranches?

The first release of exotics onto Texas ranches occurred in 1930, when a group of nilgai antelope was released on the King Ranch in South Texas.

## How many exotics are there in Texas?

A statewide survey of landowners, conducted by the Wildlife Division of the Texas Parks and Wildlife Department in 1988, resulted in an estimated 164,257 animals of 67 different species of exotics, with 90,400 animals confined behind fences and 73,857 animals free-ranging (able to move freely from one ranch to another).

## Where are most of the exotics found in Texas?

The 1988 survey revealed that exotic species occur in 137 of the 254 counties in the State and were reported confined on 486 ranches totaling 2,361,744 acres. Approximately 68% of all confined exotics were found in the Edwards Plateau (Texas Hill Country) region. The South Texas region accounted for the bulk of the free-ranging exotics - 51% of the statewide total.



## What are some of the common species of exotics in Texas?

The axis deer with, 39,040 animals reported, was the most numerous species found during the 1988 survey. The species was reported confined on 293 ranches in 92 counties and free-ranging only in an additional 2 counties.

The second most numerous species encountered on the survey, 36,756 animals, was the nilgai antelope. The majority of the nilgai population occurs semi-free-ranging on large ranches in Kenedy and Willacy Counties in South Texas. The species was found confined on only 36 ranches in 25 counties.

Blackbuck antelope, with 21,232 animals reported, ranked third on the survey and was found confined on more ranches, 326 ranches in 86 counties, than any other species. The species accounted for only 0.4% of the estimated total for free-ranging animals of all species statewide.

Aoudad sheep, with 20,402 animals counted in 1988, ranked fourth and was reported confined on 159 ranches in 65 counties and free-ranging only in an additional 8 counties. The population estimate does not include the State-regulated aoudads free-ranging in Palo Duro Canyon area.

The fifth most numerous species encountered in 1988 was the fallow deer, with 14,163 animals reported confined on 268 ranches in 92 counties and free-ranging only in 1 additional county.

The 1988 population estimate for sika deer, 11,879 animals, ranked sixth and included animals confined on 207 ranches in 77 counties.

### **What role do exotics play in Texas?**

Hunting continues to be the most popular reason for having exotic big game animals in Texas. In addition to providing more hunter opportunity during the annual white-tailed deer hunting season, exotics also provide a valuable source for year-round paid or guest hunting. Currently, there are no “closed seasons” on exotics, except for the aoudad sheep occurring in the Palo Duro Canyon area.



A number of exotic animal operations function strictly as breeding facilities to produce broodstock. Several of these facilities direct their efforts at providing assistance and research on those species listed as endangered or threatened in their country of origin. In a few cases, surplus Texas raised animals have been returned to their native lands in an attempt to increase the remaining native stock.

Several species of exotics have recently been recognized as a valuable source of meat and other commercial products. Sophisticated deer farming operations, built around the somewhat docile fallow deer, are beginning to show up in the state as are a number of ostrich “ranches”.

Additionally, many landowners maintain exotics on their land simply because they enjoy having the animals around.

### **Do exotics have a negative impact on our native wildlife?**

Several concerns have been expressed by wildlife and animal health professionals since the early days of exotic introductions. The potential for animals imported directly from foreign lands to harbor and spread harmful diseases and parasites that our native wildlife and domestic livestock have not previously been exposed to or have no natural immunity to has always been a major concern of the animal health industry. To date, though, there is no evidence of any large scale disease outbreak in Texas directly attributed to the common exotic species.

Another problem that can occur when exotic animals are introduced into an area is the competition with native and domestic animals for the limited amount of food and cover available. If rangeland is already at the point of saturation with native wildlife and domestic livestock, any introduction of additional animals, with similar diets or cover requirements, will lead to increased habitat depletion and a corresponding decline in animal populations that are less able to adapt to the stressful conditions. The land manager must be aware that there is only so much native food available on any given acreage and the number of animals expected to survive on the land must be properly balanced with the food supply and existing range conditions.

During the 1960s and 70s the Texas Parks and Wildlife Department conducted several research projects at the Kerr Wildlife Management Area, located in Kerr County, to determine food habits of exotics and to what extent the non-native animals compete with our native white-tailed deer. The food habits studies revealed that the axis deer, sika deer, fallow deer, blackbuck antelope, and aoudad sheep prefer green, succulent forbs and browse when available - classes of plants that are also the preferred foods of the whitetail. The studies also showed that the exotic species had the ability to shift their diets to grasses when the preferred forbs and browse became unavailable - an important survival trait that the native whitetails do not share. The dietary preference for forbs and browse exhibited by the more common exotic species also places them in direct competition with domestic goats and, to a lesser extent, with sheep and cattle. The studies on competition revealed that axis deer, sika deer, and blackbuck antelope could out-compete whitetails when confined together in high-fenced plots with only native vegetation to survive on and with no harvest or removal of “surplus” animals.

### **What are the current regulations regarding exotics in Texas?**

The aoudad sheep is the only exotic big game species currently regulated by the Texas Parks and Wildlife Department with an open season and bag limit - and these regulations apply only to the aoudad sheep populations occurring in the 8 Panhandle counties of Armstrong, Briscoe, Donley, Floyd, Hall, Motley, Randall, and Swisher. All other aoudad sheep and various other big game exotic species are available for harvest year-round and without bag limits as long as permission has been obtained from the animal’s owner or the landowner on whose acreage the animal occurs. Like native game, exotics may not be taken from a public road or right-of-way.

Anyone bringing exotic animals into the state must meet several animal import regulations and restrictions administered by federal and state agencies. These regulations are designed to prevent any introduction of diseased or unhealthy animals into the state. Additional regulations protect against uninspected venison entering Texas from other states. The harvest and processing of venison and exotic animal meat in Texas for commercial use requires inspection by state licensed meat inspectors ( the commercial sale of meat from native game animals is prohibited under state law). Operators of zoos, animal parks, commercial exotic meat operations, and individuals keeping certain animal species in a caged situation are required to maintain a state issued license and are subject to periodic unannounced inspections of their facilities.

All restrictions and regulations applying to exotics in Texas are subject to change and anyone planning activities involving the animals should check with the Texas Parks and Wildlife Department, the Texas Department of Agriculture, the Texas Animal Health Commission, and the Texas Department of Health for information on current rules.

### **What is the policy of the Texas Parks and Wildlife Department regarding exotics in Texas?**

The Texas Parks and Wildlife Department recognizes the fact that certain species of exotics represent a valuable asset for Texas landowners. The Department also realizes that, under certain situations, these exotic species pose a definite threat to native habitats and native wildlife. Wherever these conflicts occur, it is the responsibility of the Texas Parks and Wildlife Department to ensure or encourage the continued health and existence of the native wildlife populations.

#### **AXIS DEER**

Native to India and Ceylon, the axis deer, chital, or spotted deer is generally rufous fawn in color, with white spots covering both their summer and winter coats. Their throat, stomach, and under-tail areas are white and a dark dorsal stripe runs from the back of the head to the tip of the tail. An axis male will stand about 36 inches high at the shoulder and weigh up to 200 pounds. The antlers of the adult male are reddish brown in color and the beam, which curves backwards and outwards in a lyre-shaped formation, is usually about 30 to 36 inches long. There are normally 3 tines on each side.

#### **NILGAI, BLUE BULL**

Native to Pakistan and India, the male nilgai stands between 48-60 inches high at the shoulder and weighs between 480-540 pounds. The males average about one-fifth larger and heavier than the females. The hair on the body is short and wiry. Although in both sexes the neck is ornamented with a mane, only bulls develop a tuft of hair on the throat. The upper parts of males are generally iron gray, but the lower surface of the tail, stripes inside the ears, rings on the fetlocks, and underparts are white. The head and limbs are tawny, and the throat tuft and the tip of the tail are black. The females are more lightly colored. On both sexes, the forelegs are longer than the hind ones, and the head is long and pointed. The horns are short and carried only by males.

#### **BLACKBUCK**

Native to Pakistan and India, the blackbuck is one of the few antelopes whose coloration differs between male and female. The male is rich dark brown above, on the sides and on the outside of the legs, whereas the doe is yellowish fawn on the head and back. In both sexes the underparts, inside of the legs, and an area encircling the eyes are white. The males gradually become darker to almost black with age. The build is graceful and slender with the average male standing about 32 inches high at the shoulder and weighing around 80 pounds. The horns, borne only by the males, are 18 to 28 inches long, ringed at the base, and twisted spirally up to 5 turns. The narrow muzzle is sheep-like, the tail is short, and the hooves are delicate and sharply pointed.



#### **AOUDAD SHEEP**

Native to North Africa, the aoudad is rufous tawny in color. The insides of the legs are whitish. There is no beard, but there is a ventral mane of long, soft hairs on the throat, chest, and upper part of the forelegs. The horns of the male sweep outward, backward, and then inward; they



are rather heavy and wrinkled, and measure up to 34 inches in length. Females also have prominent horns although they are not as large as those of the male.

### **FALLOW DEER**

The fallow deer, native to the Mediterranean countries of Europe and North Africa, occurs in 3 distinct color phases here in Texas. One phase is an almost melanistic or near black color pattern with a white rump patch. The second phase is a white or cream colored animal which looks whiter during the winter than in its summer coat. The white fallow is the most common color phase in Texas. The third color phase is a rich fawn with white spots in summer and a uniform grayish brown, with little or no spotting, in winter. The adult male fallow deer stands between 32 and 48 inches high at the shoulder and weighs up to 200 pounds. Fallow deer antlers are broadly palmated with several small tines and 1 large tine arising from the palm. A good set of antlers will measure at least 28 inches in length with an inside span of 24 inches or more.



### **SIKA DEER**

Native to Europe and Asia, the sika deer are animals of medium size, varying in shoulder height from about 25 inches in one of the Japanese races to about 43 inches in the Dybowski's sika from Manchuria. The antlers of an adult male are usually 8 tines (4 to the side) but antlers having 5 or 6 tines per side sometimes occur. Antler length ranges from 18 inches for the Japanese race to 34 inches in the Dybowski's sika. Body weight of sika deer range from as little as 100 pounds up to 330 pounds. The general color patterns in sika deer range from a dark brown to near black in the Japanese race to a rich chestnut red color with light spots in the Formosan and Manchurian races. All sika deer, except for the melanistic Japanese race, exhibit a white caudal or rump patch of white hair. Sika deer also have a dark dorsal stripe from the back of the head to the tail. Males will generally develop a mane similar to the American elk.

