

The Status of Exotic Big Game in Texas

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The stocking of exotic big game animals in Texas by private landowners has been a common practice in many parts of the State. Exotics were released in an effort to provide the paying hunter with additional species to hunt and for aesthetic reasons. One release of aoudad sheep in the Palo Duro Canyon of the Texas Panhandle in 1957 and 1958 by the Texas Parks and Wildlife Department represents the only State-sponsored stocking of exotic big game. These sheep are listed as big game animals in some Panhandle counties and harvest is regulated by Departmental seasons and bag limits in those counties. Certain restrictions have also been placed on the harvest of axis deer in Bexar and Kendall Counties at the request of local landowners and County Commissioners Courts. In the remainder of the state, exotic large game animals are not regulated by the Texas Parks and Wildlife Department. This enables ranchers and landowners to allow exotic hunting as a year-round sport.

The first known stocking of exotics in Texas was in 1930 and involved nilgai antelope (Jackson 1964). Since that time, exotic populations have grown rapidly both in numbers and species. The exotic game situation in Texas is unique in that more species of animals in greater numbers have been released here than in any other place in North America (Ramsey 1969).

Since 1963 periodic censuses of privately owned exotics have been conducted. The most recent was conducted in 1974. Landowners and managers known to have such animals on their land were contacted and interviewed by Texas Parks and Wildlife Department biologists and technicians in all 254 counties in the State. Data gathered in this interviews consisted of numbers and species of exotics, total ranch acreage, acreage accessible to exotics, and acreage under deer-proof fences.

Based on a 1963 statewide census, 13 species of exotics were reported totaling approximately 13,000 animals (Jackson 1964). In 1966, the total population was estimated at 30,000 individuals (Ramsey 1968). In 1969 this estimate was revised to some 37,000 animals involving 26 species. The 1971 census results indicated 35 species of exotic game totaling 45,691 animals (Young 1973).

Currently 39 species of exotic large game totaling 57,278 animals are found in the state. Seven of these species represent over 95% of the present exotic game population. The 1974 total population estimate for these seven major exotics was 55,953 animals. This included 19,518 axis deer, 15,254 mouflon-barbados sheep, 7,339 blackbuck antelope, 4,483 fallow deer, 3,531 aoudad sheep, 3,042 sika deer, and 2,786 nilgai antelope.

The 1974 census showed 316 ranches comprising 4,488,753 acres with exotics.

Axis deer (*Axis axis*), nilgai antelope (*Boselaphus tragocamelus*), and blackbuck antelope (*Antelope cervicapra*) are native to India. Mouflon-barbados sheep (*Ovis* sp.) originated in



Mature axis bucks are considerably larger than white-tailed deer in Central Texas. Axis deer are native to India, Nepal, and Ceylon.



Sika deer, native to the southern half of eastern Asia, Japan and Formosa, are similar in size to Central Texas white-tailed deer.

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Sardinia and Corsica. Very few pure-blood mouflon are found in Texas. The majority are crossbred with barbados or other domestic sheep. The fallow deer (*Dama dama*) is European in origin. Aoudads (*Ammotragus lervia*) are a wild sheep from northern Africa. The native range of the sika deer (*Cervus nippon*) covers a limited area within the southern half of eastern Asia.

The Edwards Plateau and the South Texas Plains are the areas which have the majority of exotic animals. These two regions are also important in regards to white-tailed deer management and livestock operations. The Edwards Plateau has been described as the most important deer range in Texas from the standpoint of land area, deer numbers, hunting pressure, deer harvested and economic return to landowners (Thomas, Teer, and Walker 1964). South Texas ranks second in overall importance and consistently produces more trophy type white-tailed deer than any other region in the state. At present the Edwards Plateau is overpopulated with white-tailed deer due to an inadequate harvest of antlerless deer. Die-offs are common. Habitat in the Plateau is generally in poor condition as a result of overgrazing by goats, sheep, cattle and deer as evidenced by browse lines found on woody vegetation in many range areas.

The increasing exotic population presents another threat to survival and management of the white-tailed deer which have already been replaced by exotics on some game ranches. The possibility exists that this displacement could also occur in extensive areas where exotic movement is not restricted by deer-proof fencing. Free-ranging populations of axis, sika, and fallow deer are known to exist. These populations originated, in most instances, when introduced animals escaped from ranches with deer-proof fencing. Once these animals escape the confines of a high fence they become difficult to census and nearly impossible to control. Even on large, high-fenced ranches with adequate cover, control of sika and axis deer would be extremely difficult. The statewide survey, for the most part, does not reflect these free-ranging exotics.

Axis and sika deer have become well established in traditional white-tailed deer habitat and axis deer have been reported to

dominate white-tailed deer at supplemental feeding sites. They have been observed chasing them from small oat fields (Fuchs 1976). Feldhamer and Chapman (1978) attributed the decline in white-tailed deer on Maryland's eastern shore to an increasing sika deer population. In parts of the Edwards Plateau, including localized areas of Kerr, Edwards, Real, Bandera, and Kendall counties, it is not uncommon to see axis and sika deer along highway rights-of-way much the same as white-tailed deer are observed. In these localized areas exotic deer are competing with the white-tailed deer for food and will reach the point of reducing survival and density of this native wildlife resource. Food habit studies of axis, sika and fallow deer, conducted on the Kerr Wildlife Management Area in the Edwards Plateau showed that these exotic species preferred browse and forbs when available and competed directly with white-tailed deer for these items. As preferred foods become less abundant, axis, sika, and fallow deer shift their diet to grasses. This ability to shift diets and their diversity of food habits enables these exotics to survive and maintain good body condition during white-tailed deer stress periods due to drought, overpopulation, and overgrazed ranges.

Range managers should be aware of the impact these exotic animals are having on native white-tailed deer. Depending upon the season and available forages, axis, sika, or fallow deer can become as severe a competitor with livestock as they are with white-tailed deer.

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