

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Animal Abstract

Element Code: AMALD01011

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CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Antilocapra americana mexicana*

COMMON NAME: Chihuahuan Pronghorn

SYNONYMS:

FAMILY: Antilocapridae

AUTHOR, PLACE OF PUBLICATION: Merriam, Proc. Biol. Soc. Washington, 14:31, April 5, 1901.

TYPE LOCALITY: Sierra en Media, about 10 mi. S New Mexico border, Chihuahua, Mexico.

TYPE SPECIMEN: Collected October 4, 1899, by E.W. Nelson and E.A. Goldman.

TAXONOMIC UNIQUENESS: Pronghorn (*Antilocapra americana*) are only found in North America. They are often referred to as “antelope,” however, they are not closely related to any African antelope species. The scientific name originates from *Antilo*=antelope and *capra*=goat, thus antelope-goat. There are five subspecies of pronghorn, three of which occur in Arizona including the American pronghorn (*A.a. americana*), Sonoran pronghorn (*A.a. sonoriensis*), and Chihuahuan pronghorn (*A.a. mexicana*). The other subspecies include *A.a. oregona* and *A.a. peninsularis*.

DESCRIPTION: A small animal when compared to deer and elk. Mature males stand 36-40 inches at the shoulder and weigh 85-130 pounds; females weigh 75-105 pounds (members of the southern subspecies are generally smaller than northern subspecies). Length (including tail) is 48-57 in (122-145 cm) long. They have chunky bodies with long, slim legs and feet (hoofs), that lack dewclaws common to most ruminants. Each foot (hoof) has two toes. Pronghorn are striking in appearance, with a tan body and sharply contrasting white markings on the head and neck. They also have a short erectile mane, about 2 3/4-4 in (7-10 cm) long. The belly and lower sides are creamy white and the short tail is surrounded by a large white rump patch. Fawns weigh between 5-7 pounds at birth, and are not spotted like deer fawns, but have a pattern similar to adults. Unlike does, a buck's nose is dark brownish-black, and they have a triangular black patch on each cheek. As the name implies, they have true horns with a forward projection or prong on each horn; superior hooks, usually have whitish tips. The horn sheath is composed of fused hairs that covers a bone core, and is shed each year during October-November. Both sexes have horns, but those of the female are much smaller (4 inches), lacking prongs, seldom exceeding the length of the ear; some females are found

without horns. Horns on males reach their maximum length 12-20 inches, by the beginning of breeding season, July or August. Pronghorn eyes are unusually large, about 2 inches in diameter, and are set well out on the sides of the head, which allows for a wide field of vision. The skull has 32 teeth; the six incisors and two canines in the lower jaw are simple and spadelike. Horn cores in males, and when present in females, are directly superior to the orbits, which are very large and slightly elevated above the face.

AIDS TO IDENTIFICATION: Pronghorn are smaller than deer and elk, and their horn sheath is shed each year in the fall. In comparison, deer and elk have antlers which are composed entirely of bone and shed completely each year. Chihuahuan pronghorn (*A.a. mexicana*) differs from the American pronghorn (*A.a. americana*) in smaller, narrow skull, shorter nasals, and lighter coloration (Hoffmeister 1986).

ILLUSTRATIONS:

B&W photo of species (Hoffmeister 1986: p. 549, fig. 5.297)

Color photos of species (Whitaker 1997: plates 318 and 319)

Color drawing of species (Burt and Grossenheider 1976: plate 23)

Color photo (Huffman in <http://www.ultimateungulate.com/pronghorn.html>)

TOTAL RANGE: Southeast Arizona, southwest New Mexico, Texas, and Chihuahua, Mexico.

RANGE WITHIN ARIZONA: Historically throughout southeastern and south-central Arizona. Reintroduced from Texas stock in several areas within historic range from 1981-1985 and 1987, including Empire Ranch near Sonoyta, San Bernardino Valley, Ft. Huachuca and Buenos Aires National Wildlife Refuge (Most western extent of its range).

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Relative to body size, pronghorn have a large windpipe, heart, and lungs which allows them to take in large amounts of air when running. These features, combined with an extremely light bone structure, contributes to their amazing speed. Pronghorn can maintain speeds of 40 mph for several miles, reaching 60 mph in shorter bursts. When in flight, bucks normally run with their noses pointed toward the ground while does tend to hold their noses pointed toward the ground while does tend to hold their heads high.

The hair of pronghorn is very brittle and is shed throughout the year. During extreme weather conditions, the hollow hair provides excellent insulation. As a defensive mechanism, by erecting the white hair on the rump, a pronghorn alerts the herd (like an alarm signal) of possible danger. Fawn hair is wavy which helps break up the body outline and aids in concealing motionless fawns from danger. (Alexander and Ockenfels 1993).

Pronghorn are diurnal, most active in mornings and evenings, but may be on the move at any time of day. They are nomadic with seasonal movements often occurring over large areas.

Movements are often dependent upon the quality and quantity of habitat. They tend to winter in large herds, with animals of both sexes feeding and bedding close together. During the spring, pregnant does isolate themselves to give birth, and by late spring, doe-fawn groups have formed. Bachelor herds of young, non-territorial bucks are also common. Mature bucks are solitary at this time, often defending a territory or harem of does.

Predators of pronghorn include coyotes, bobcats, mountain lions, golden eagles, and wild dogs. Coyotes are the primary predator of fawns in Arizona. Losses of pronghorn due to predation vary with pronghorn and predator numbers, habitat type, and availability of alternative food sources for predators. Speed and exceptional eyesight are the main defense of pronghorn from predators; they can detect movement up to 4 miles away. A fawn's best defense from predators is the choice of good bedsite cover (by the mother) and to lie motionless. (Alexander and Ockenfels, 1993).

REPRODUCTION: Pronghorns are polygamous. Breeding season, or rut, occurs from late July to September, typically lasting two to three weeks. Does normally breed as yearlings for the first time and usually have one fawn, while twins and sometimes triplets are common in mature does. Does have 4 mammae, which allows for more than one fawn. Gestation is among the longest for big game species, lasting eight months (250 days). Fawns are born from late March to early June in Arizona. At birth, fawns weigh between 5-7 pounds. Within four days of birth, a fawn can outrun a human and within a few weeks can run with the herd. (Alexander and Ockenfels, 1993). They reach adult size at around 6 months.

FOOD HABITS: Selective, opportunistic foragers, Pronghorns feed on forbs, shrubs, grasses, and sometimes cacti and domestic crops. Forbs make up the largest part of their diet, followed by shrubs, then grasses. Forbs are typically eaten from spring to late fall and are critical to good fawn production. Shrubs are forage on all year, but are most important in winter when forbs are not readily available. Grasses, are consumed when young and succulent. Other food types vary locally in importance. When moisture content in vegetation consumed is adequate, pronghorn may take in little if any water (Chapman and Feldhamer, eds. 1982). In some areas during dry weather, pronghorn have been observed consuming water.

HABITAT: Grass-shrub valleys and grasslands, with low, rolling topography. Based on several studies conducted over the years, the species prefers habitat with: 1) ground cover averaging 50% living vegetation and 50% nonliving vegetation, 2) a vegetation composition of 40-60% grass, 10-30% forbs and 5-20% browse, 3) succulent plants, available in spring and wet summers, and 4) vegetation averaging 38 cm (15 in) in height. (Yoakum 1978).

ELEVATION:

PLANT COMMUNITY: Per Leopold (1959), "In Texas, Buechner identified 228 species of plants eaten by antelope, the most important being such forbs as bitterweed (*Actinia*), cutleaf daisy (*Aplopappus*), several species of dahlia and of wild buckwheat, guara, deervetch

(*Lotus*), paper flower (*Psilostrophe*), coneflower (*Ratibida*), and woolly senecio. Grama grasses and some shrubs, such as hackberry, walnut, juniper, and javelina bush, are seasonally important.”

POPULATION TRENDS: The subspecific integrity of pronghorn populations was complicated, by the restocking that took place after many populations were eliminated in the early twentieth century. Restocking programs where pronghorn occur helped herd populations increase. However, in the course of such efforts, maintenance of the genetic integrity of remnant herds was seldom considered, and the taxonomic status of most herds is now unclear, with the exception of some in Texas (Lee et al., 1994). Evidence has been gathered which indicates gene flow has occurred between American and Mexican pronghorn subspecies (Lee et al., 1994). (NMGFD 2000).

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: WSC (AGFD, WSCA in prep)
[Threatened AGFD, TNW 1988]
OTHER STATUS: P (Mexican Federal Endangered Species List, 2000)

MANAGEMENT FACTORS: The American and Chihuahuan pronghorn in Arizona are relatively abundant and are classified as big game. Approximately 500-600 pronghorn bucks are harvested annually. Hunting opportunities are closely linked to current population numbers. These numbers are obtained by intensive annual surveys. Pronghorn surveys allow for estimation of buck, doe, and fawn numbers for a given area. (Alexander and Ockenfels, 1993).

Habitat degradation, human developments, and predation have the greatest impact on pronghorn population levels. Maintaining and enhancing pronghorn habitat is the key to active pronghorn management. (Alexander and Ockenfels, 1993).

Since pronghorn are nomadic, fencing of roads, railroads, and grazing units poses major management problems. Unlike deer and elk, they prefer to crawl under fences rather than jump over. Extensive habitat fragmentation results when impassable fences such as net-wire or barbed wire fences with too low a bottom strand are used. (Alexander and Ockenfels, 1993).

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP:

SOURCES OF FURTHER INFORMATION

REFERENCES:

- Alexander, A. and R.A. Ockenfels. 1993. Pronghorn in Arizona. Wildlife Management Division, Arizona Game and Fish Department Publication. Phoenix, Arizona.
- Arizona Game and Fish Department. 1988. Threatened native wildlife in Arizona. Arizona Game and Fish Department Publication. Phoenix, Arizona. 32 pp.
- Arizona Game and Fish Department. In prep. Wildlife of Special Concern in Arizona. Arizona Game and Fish Department Publication. Phoenix, Arizona. 32 pp.
- Burt, W.H. and R.P. Grossenheider. 1976. A field guide to the mammals: North America north of Mexico. Third Edition. Houghton Mifflin Company, Boston. pp. 222-224.
- Chapman, J.A. and G.A. Feldhamer, Eds. 1982. Pronghorn: *Antilocapra americana*, by D.W. Kitchen and B.W. O'Gara, in Wild Mammals of North America. The Johns Hopkins University Press, Baltimore, MD. pp. 960-971.
- Cockrum, E.L. 1960. The recent mammals of Arizona: their taxonomy and distribution. The University of Arizona Press, Tucson, Arizona. p. 256.
- Hoffmesiter, D.F. 1986. Mammals of Arizona. The University of Arizona Press and The Arizona Game and Fish Department, Tucson. pp. 549-553.
- Leopold, A.S. 1959. Wildlife of Mexico: The game birds and mammals. pp. 518-523.
- NatureServe Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6. Arlington, Virginia, USA: NatureServe. Available: <http://www.natureserve.org/explorer>. (Accessed: December 10, 2003).
- New Mexico Game and Fish Department. 2000. Biota Information System of New Mexico (BISON) Species Account 050583, Chihuahuan Pronghorn (*Antilocapra americana mexicana*). New Mexico Game and Fish Department Publication, http://www.cnr.vt.edu/fishex/nmex_main/species/050583.htm. 12 pp.
- Proyecto de NORMA Oficial Mexicana PROY-NOM-059-ECOL-2000 (Mexican Federal Endangered Species List).
- Whitaker, Jr., J.O. 1997. National Audubon Society Field Guide to North American Mammals. Revised Edition. Alfred A. Knopf, New York. pp. 846-849.
- Yoakum, J. 1978. Pronghorn. Pp103-121. In: J.L. Schmidt and D.L. Gilbert. Big Game of North America, Ecology and Management. Stackpole Books, Harrisburg, PA. 494pp.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

Reintroductions in Arizona that took place in the 1980's, were of the Mexican subspecies (*A.a. mexicana*) from Texas. Reintroductions conducted in the 1940's and 1950's were of the American subspecies (*A.a. americana*), thus if any offspring persisted from these early reintroductions, mixing of genetic material may have occurred.

New Mexico Department of Game and Fish has moved pronghorn antelope from one part of New Mexico to other parts of the state without much consideration for subspecies. This has resulted in confusion of genetic material, making subspecies identification questionable. (NMGFD 2000).

The scientific name *Antilocapra americana*, means “American antelope goat.” More specifically, *Anthalops* (Greek) a horned animal [probably from *anthos* (Greek) a flower and *ops* (Greek) the eye which refers to the beautiful eyes of antelope]; *capra* (Latin) a she-goat; -*anus* (Latin) suffix meaning belonging to.

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