

PRONGHORN ANTELOPE IN SOUTHEASTERN ARIZONA

REGION V ANTELOPE PROFILE

by Jim Heffelfinger

Early explorers and military personnel moving into or through southeastern Arizona in the mid-to-late 1800s reported that pronghorn antelope were common throughout all grassland areas. As more and more people poured into the region, unregulated market and subsistence hunting took its toll on all native ungulates, especially pronghorn antelope. Antelope were shot in great numbers to supply meat to mining camps, military installations, and population centers. When local bands of antelope became scarce, market hunters simply moved to areas which had not been exploited. No thought was given to only removing a harvestable surplus in order to assure an annual crop in perpetuity. The sportsman had not yet evolved.

The unregulated slaughter of antelope in southeastern Arizona was exacerbated by incredibly high levels of livestock grazing in the 1880s, coupled with a series of droughts. All of these early pressures caused a widespread decline in antelope in southeastern Arizona. By 1907, Mcarns reported that *"the pronghorn antelope is already a rare animal in the region of the Southwest, where it ranged in the thousands 25 years ago."*

When pronghorn were more numerous and widespread, there was probably free interchange among bands from different major valleys in the southeastern portion of the state. Regardless, they are now and will probably always be relegated to distinct and isolated populations associated with remnant expanses of desert grassland. Present-day pressures of urban expansion, agriculture, highways, canals, and fences preclude the establishment of one large, continuous population in our sky island- and valley-dominated landscape. With this in mind, let's look at the history and management of each population individually.

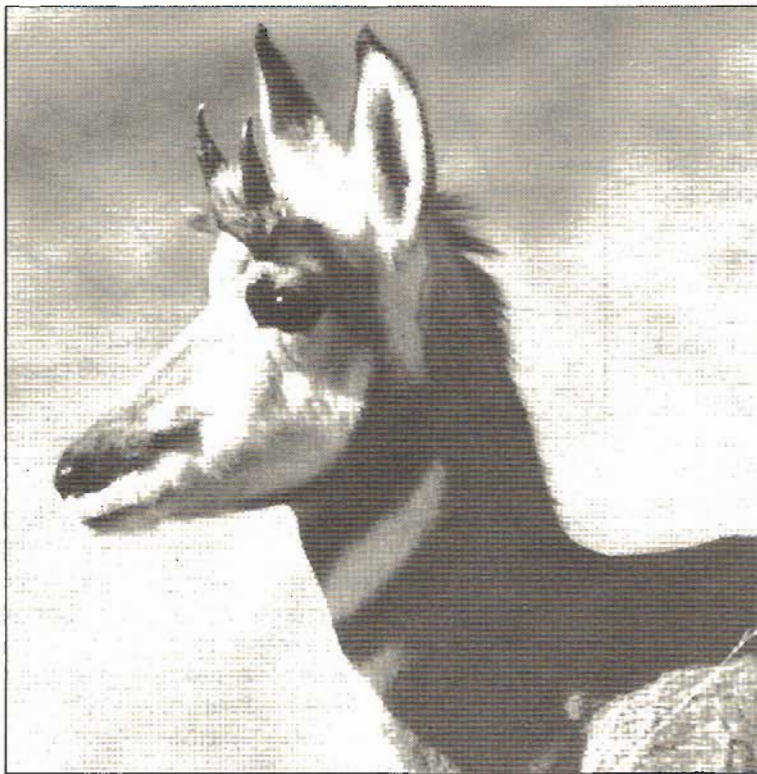


Photo by Tony Mandale

WHITLOCK PEAK / ROBBS WELL (Unit 28)

This population originally consisted of indigenous antelope. The occupied habitat is bisected by the Arizona/New Mexico border. Most antelope in this population reside in New Mexico, but a few bands, totaling 20-30 animals, are consistently located in Arizona east of the Peloncillo Mountains. The population was estimated at 20-25 in 1966 and at less than 20 in 1973.

Records show that two antelope were trapped from Raymond Ranch in northern Arizona and released here in 1941 but did not survive long. A supplemental transplant in 1986 added 36 Texas pronghorn to this population near the Winchester Peak/Big Tank area of the Day Ranch in Arizona. The intent was to revive this faltering yet tenacious group of antelope. It is believed that many of these translocated animals died or emigrated to New Mexico. During the July, 1993, survey, 17 animals were observed, which is similar to the 5-year average of 18 pronghorn observed. In 1964, 5 permits were issued in this unit, resulting in a harvest of 4 bucks. This

was the only hunt ever authorized by the Department in this unit, and this herd may never again be opened to legal harvest, given the limited habitat available in Arizona and the fact that the herd has never been estimated at over 50 individuals.

SAN BERNARDINO VALLEY (Unit 30A)

Early explorer James Olivo Partie reported that pronghorn were *"plentiful"* around the San Bernardino Ranch east of Douglas in 1830. When describing the local landscape in the valley, Robert Whitworth of the Mormon Battalion wrote that *"antelope are plentiful here"* in 1849. This large block of excellent pronghorn habitat once teemed with antelope but remained vacant for many years after being extirpated around

the turn of the century. Long-term residents in the valley reported that pronghorn persisted until around 1910 near the settlement of Apache.

In November of 1984, 32 antelope from west Texas were released at Moline Tank in the middle of the San Bernardino Valley. These animals were supplemented with 67 more from the same source in December of 1986. This population enjoyed a few years of good fawn survival before the dry cycle in the late 1980s but the southwest. Fawn survival dropped to an average of 9 fawns per 100 does for 1988-90, including a total of 54 fawnless does seen in 1990. This drought cycle was then followed by several years of good precipitation and excellent fawn recruitment, and the population seemed to explode. We never observed more than 91 animals prior to 1992, when 157 pronghorn were observed, and then, in 1993, 191 antelope were seen during the survey.

A hunt was initiated in 1992, with 2 General permits. Because of trends in population indices and buck-to-doe ratios, the (Continued on Page 6)

PRONGHORN ANTELOPE IN SOUTHEASTERN ARIZONA

(Continued From Page 4)

number of permits was increased to 5 for the 1993 and 1994 seasons. This will be the population to watch as numerous bucks born during the good fawn years reach maturity in 1995-97.

SULPHUR SPRINGS VALLEY

(Units 31 & 32)

In 1826, James Ohio Pattie also found antelope "numerous" in the Sulphur Springs Valley east of the Gahuro Mountains. The antelope were once very abundant throughout the entire valley but now inhabit only the grassland north of Willcox, east of the Galiuro and Winchester Mountains, and west of the Pinaleno Mountains. A portion of the population also ranges on Allen Flat to the southwest of the Winchester Mountains.

Department transplant records indicate Raymond Ranch/Chavez Pass antelope were released here (22 in 1943, 6 in 1944, 40 in 1945). Pronghorn in northern Arizona were hunted from 1941 to 1943 and from 1949 to the present, but it wasn't until 1954 that hunters could hunt antelope south and east of Tucson. In 1954, the Sulphur Springs and San Rafael Valleys were open to legal hunting, with 50 permits issued. Pronghorn seasons in southern Arizona were closed again from 1955 to 1957 and reopened in the Sulphur Springs Valley in 1959, with 20 permits. Since then, 10 to 30 firearm permits have been issued each year in the Valley. In 1977, harvest was divided among archery and firearm hunters. The years 1987 and 1989 saw the addition of a muzzleloader hunt.

In the last 10 years, between 150 and 250 antelope have been observed during standard summer aerial surveys. The only exceptions to this were in 1986 and 1987, after several years of good recruitment, when over 300 pronghorn were tallied. The number of antelope seen remains high (more than 200), but the number of bucks per 100 does has steadily declined from 59 in 1988 to 23 in 1993. This population appears to be maintaining itself, despite a 5-year average of 28 fawns per 100 does counted in late summer. A few good reproductive efforts can have the effect of "flushing"

large fawn crops into the population at a 1:1 sex ratio, thus increasing the overall proportion of males in the population.

EMPIRE CIENEGA (Unit 34B)

The desert grassland area northeast of Sonoita supported antelope historically, with early explorers mentioning antelope throughout the area. In 1851, Colonel Graham reported seeing "a great many antelope" grazing in the luxuriant grassland between the Whetstones and the Santa Rita Mountains. By the early 1900s, these antelope disappeared from this area north of Highway 82. In November of 1981, 51 pronghorn (10 bucks, 21 does, 20 fawns) trapped near Marfa, Texas, were released on the Empire Ranch in Unit 34B. At that time, the ranch was owned by the Anamax Mining Company but was sold to the BLM, along with the adjacent Cienega Ranch in 1989. After some initial mortality (approximately 20%) and a slow start reproductively, the population began to increase steadily and now numbers over 100 animals.

In 1988, this unit was opened to legal harvest, with an archery, muzzleloader, and firearm permit. Permit levels increased, concurrent with the antelope population growth, to 8 (total) permits (2-3 of each weapon type). The rolling hills in this area are conducive to successful stalks by bowhunters. As a result of near 100% archery success, we can only offer a limited number of archery permits in this unit.

Recently, antelope have been observed consistently on the west side of Highway 83 (Unit 34A). As the population increases, some animals are apparently dispersing into unused (in recent times) habitat. Also, pronghorn movement across Highway 82 east of Sonoita has been reported by Wildlife Managers. Highways and the associated fences are normally an effective barrier to movement, but they are not impenetrable. Additional documentation of this came in the form of 2 road-killed female antelope found this past summer, one on Highway 83 north of Sonoita and another on Highway 82 east of town.

SAN RAFAEL VALLEY (Units 35AB)

When he reached the headwaters of Babocomari Creek on September 18, 1851, Colonel Graham recorded seeing "herds

of pronghorn several times during the day." Early prospectors in the Patagonia Mountains frequently observed antelope right up to the oak woodland in the late 1850s. This native population was greatly reduced by 1920 and was subsequently supplemented with 13 northern Arizona antelope in 1945 and an additional 57 in 1951. In addition to these supplements, 72 and 18 northern antelope were released on the Fort Huachuca Military Reservation in 1949 and 1951, respectively.

50 to 100 animals were consistently surveyed from the late 1950s to the late 1960s, when the population declined and remained low for nearly a decade. From 1968 to 1977, an average of only 23 pronghorn were observed each year during surveys. In the late 1970s, the population slowly recovered to a level similar to the 1950s. In the last 5 years, 70 to 115 animals were surveyed in the valley, with over 100 seen the last 2 years. Fawn survival, however, has been under 20 per 100 does in 4 out of the last 6 years. This population would probably be in decline if it weren't for fawn crops of 39 and 43 per 100 does in 1991 and 1992, respectively. If the last 2 years of low fawn recruitment continues, we will probably see a decline in this population.

In 1954, antelope could be hunted in this area as part of the Sulphur Springs Valley hunt, containing 50 permits. No antelope hunts were open in southeastern Arizona from 1955 to 1957. The San Rafael Valley was then opened to regulated hunting for the first time since 1913 as a separate block in the 1958-59 season, with 5 firearm permits, resulting in a harvest of 5 antelope bucks. The next year (1959), permits were increased to 15, then stayed between 6 and 10 until it was closed in 1972 because of concerns over low numbers of antelope observed. When the season reopened in 1979, 1 firearm and 4 archery permits were issued, followed by 5 years of archery-only permits. A muzzleloader hunt was added in 1986, allowing both weapon types the opportunity to hunt this population. Firearm permits are no longer issued in this area because of the close proximity of housing and rural schools throughout the habitat occupied by these animals.

(Continued on Page 8)

**PRONGHORN ANTELOPE IN
SOUTHEASTERN ARIZONA**
(Continued From Page 6)

ALTAR VALLEY (Units 36ABC)

Ralph Pumpelly recorded "*great herds of bounding antelope*" in the Altar Valley in 1961. Manual King, who operated the Anvil Ranch since 1885, reported last seeing antelope in the Altar Valley in 1933. There is little doubt that this great valley once supported large numbers of antelope. In 1945, 15 pronghorn from northern Arizona were transplanted near Arivaca, with little success. Thea Ulen of the Buenos Aires NWR chronicled the results of the subsequent translocation of 86 antelope from Texas in a recent *Pronghorn* issue. This population incurred heavy losses from predators shortly after its release and has increased slowly to about 75 individuals. Fawn survival has not been great, averaging 27 per 100 does over the last 5 years. Presently, there may not be enough fawns hitting the ground each spring to "swamp" the predators during the first few critical weeks after birth. A

few years of good fawn survival would probably boost the total population to a level which could withstand the present predation pressure on fawns.

In 1959, the only legal hunt in the Altar Valley since the statewide closure in 1913 was conducted. That year, 10 permits were issued, and 9 hunters harvested 2 antelope. That hunt was closed the next year and remains closed today.

ORACLE AREA (Unit 37B)

The upper desert grassland area near Oracle north of Tucson contains a hill known as Antelope Peak, named after the indigenous pronghorn which once inhabited that area. There have been attempts to re-establish antelope in this area with transplants from Raymond Ranch/Chavez Pass in northern Arizona, but they have been unsuccessful. 4 antelope in 1943 and 15 in 1945 were released in this area. These animals persisted for a few years but then followed their ancestors into the history books.

Last fall we collected whole blood sam-

ples from 10 male pronghorn during September throughout southeastern Arizona. These samples were tested for exposure to the bluetongue virus as a pilot project. 9 of the 10 samples were positive for exposure to the disease. This is an extremely high prevalence and could be affecting the reproduction in some of our herds in southeastern Arizona. Bluetongue, a viral disease which afflicts ungulates in late summer (August and September), coincides with breeding and conception. Not much is known about its effects in wildlife populations, but we can infer possible consequences from what we know about how it affects domestic animals. If enough pronghorn does are infected during the breeding season, fawn recruitment could be seriously affected. We have a few populations which are not reproducing at an expected rate, given the range conditions in those areas. We have applied for a Federal Aid Enhancement Grant to complete a much more extensive serological analysis of disease prevalence in our antelope. Using the same protocol as we have for (Continued on Page 9)

PRONGHORN ANTELOPE IN SOUTHEASTERN ARIZONA

(Continued From Page 8)

er and javelina we will mail blood tubes to hunters with instructions on how to collect whole blood while field dressing. These samples can then be dropped off at established collection stations and the regional office to be tested by the University of Arizona Veterinary Diagnostic Lab.

The re-establishment of antelope throughout southeastern Arizona is yet another great accomplishment of our system of wildlife management in this country. Many people do not understand the distinction between the unregulated market and subsistence hunting that occurred 100 years ago and the present system of highly controlled harvests. Anti-hunting organizations are fond of saying a species was "hunted to near extinction", the implication being that it could happen to any of the presently hunted species. It was early sportsmen who had the foresight to establish the Arizona Game Protective Association in 1923 and to campaign vigorously against indiscriminate slaughter of our game animals. Only through their early efforts were we successful in halting the rapid decline of antelope and in instituting changes to nurture the species back to reasonable levels of abundance and distribution. This effort continues today through the hard work and sacrifices of hundreds of sportsmen. The funds generated through the sale of hunting and fishing licenses and an excise tax on hunting, fishing and shooting equipment has helped not only game animals, but countless nongame species as well. Habitat acquisitions and protection, wetland maintenance, prescribed burns, water source development, etc., performed as "game management" undoubtedly has been a boon to many un hunted species which also use those habitats. The members of the early Arizona Game Protective Association would be proud to see all we have done and continue to do. Let's keep up the good work!

Jim Heffelfinger is a Game Specialist in the Region V office of the Arizona Game & Fish Department in Tucson.

The Next AAF Board meeting will be held on Monday, February 13, at 6:30 P.M. at The Administrators, 3900 E. Camelback #200, Phoenix.

FROM FIELD TO FEAST

by Nixa Gammons

As you prepare for the spring hunts, try these two recipes guaranteed to help when you are both hunter and camp cook on the same day. You precook the meats at home, freeze, and take frozen into camp. Heat-to-eat in camp, adding whatever sauces you wish at that point. This saves time when you drag in after a full day in the field.

BARBECUED VENISON RIBS

At Home: Sprinkle ribs with plain or garlic salt, pepper, and crumbled dry basil leaves. (Amounts will vary according to the number of ribs you have.) Lay ribs on a rack in a baking pan and pour 2 cups of water in the bottom. Wrap the entire pan in aluminum foil, sealing well so no moisture escapes. Bake at 325 for about 45 minutes per pound of ribs. Meat should be falling-off-the-bone tender ~ if it isn't, bake a little longer. (Some ribs may be ready, others may not be.) Remove ribs from pan and cool. Wrap & freeze each section of ribs separately. Take the ribs to camp frozen, along with your favorite barbecue sauce.

In Camp: The day you want ribs for supper, remove from ice chest to finish thawing, if needed. On a grill over coals or a low fire, lay out these tender ribs to heat through, basting with the BBQ sauce as they warm up. Add veggies and bread, and you have as fast a meal as a hunter could want... with delicious, tender ribs.

BIRDS IN DOUBLE-DUTY BBQ SAUCE

At Home: You can use pieces of chicken, dove, quail, duck or any bird you happen to like with BBQ sauce. Place meat pieces in a heavy pot and cover with your favorite BBQ sauce. Cover pot, bring to a boil on top of the stove, reduce heat, and simmer until every piece is fork-tender. (Remove pieces as they become tender and set aside.) Drain off the BBQ sauce, cool, and freeze in plastic bags. Cool meat pieces and freeze in serving-size packages. Take meat and sauce into camp frozen.

In Camp: Thaw, if needed. Delicious cold or, if desired, hot ~ merely heat up in a pot with the BBQ sauce. Afterwards, save the sauce (again) and use on ribs, if you brought some with you!

HELPFUL HINTS

~ Do you do your own butchering? Package your scraps of meat as "chili meat" instead of grinding everything as hamburger. Be sure to include the neck meat ~ it's worth carefully removing from the bones! You then have meat that can do multiple duty in chili, stew, soup, mincemeat... or that can be further ground into hamburger.

~ Do you have ducks (or quail or doves) of various ages in your freezer and plan to eat them at one meal? Thaw the day before you want to eat them, put them in a deep pot, cover with water, put lid on the pot, and simmer gently. When each bird is fork-tender, remove from water, drain, cool, and refrigerate overnight. (Use the water later in gravy or as soup stock.) The next day, bring the birds to room temperature and complete the preparation with any recipe you like. For example, stuff or glaze them, merely reheating as you finish the process. (Put under a broiler to brown them at the end, if you wish.) Easy! And each bird is cooked to perfection. Serve with peach halves filled with lingonberries or cranberries, a green vegetable, and your favorite potato. You (the cook) can relax and lap up the praise!

Please let the Pronghorn Food Editor know what you'd like to see in this column. It's being written with you in mind. Share your favorite recipes with us, too.