Pronghorns
On The Prairie

Our antelope project leader provides a brief history and some interesting facts about this swift-footed prairie species.

by Terry L. Funk
Antelope Project Leader
Hays

The absence of pronghorns in Kansas became evident to the old Kansas Forestry, Fish and Game Commission the late 1950s. By the early 1960s, the decision was made to do something about this declining natural resource. In 1962 the Commission hired a biologist to head Kansas' pronghorn project. The project was approached from three directions: (1) Determine the pronghorn's historic range; (2) Inventory the pronghorn population and remaining suitable range sites; and (3) Attempt to re-establish pronghorn herds on these suitable range sites.

History

Research into the historic range, distribution and population of Kansas pronghorns proved to be both interesting and rewarding to the pronghorn project leader. As our forefathers crossed Kansas during their western movements, they made entries in their daily journals about everything they saw. The references to pronghorns are frequent and well documented. These historic records provide us with not only distribution information but also some idea of what the overall population must have been like. These early travelers recorded pronghorn sightings as far east as the Emporia area and most points west.

Historic References

As Pike passed through present-day Anderson, Chase and Lyon counties in 1806, he noted that antelope were common. J.R. Meade, an early Kansas trapper, reported that in 1859, "Antelope were abundant everywhere, in the summer, migrating south in the winter to the Staked Planes."

Know (1875) reported antelope were "in great numbers on the western plains, in herds of ten or twenty."

* * *

In mid-April of 1867, Lt. Col. George A. Custer led eight companies of the 7th U.S. Cavalary in pursuit of several hundred Indians fleeing northward from their campsites at Pawnee Fort. The following incident probably occurred in present-day Ness County.

Here I will refer to an incident entirely personal, which came very near costing me my life. When leaving our camp that morning I felt satisfied that the Indians, having traveled at least a portion of the night, were then many miles in advance of us, and there was neither danger nor probability of encountering any of them near our column. We were then in magnificent game country, buffalo, antelope, and smaller game being in abundance on all sides of us ... from ***My Life On the Plains,*** by George Armstrong Custer

* * *

Fort Hays Military Reservation records indicate that pronghorn populations were declining by 1877. Lantz (1905) noted that antelope were "Fast disappearing. A recent law protects these animals, but the law is ignored by many of the settlers in western Kansas. A few small herds have been reported to me within the last year as occurring in the extreme western counties of the state."

Having established historic population distribution and density maps, the project leader's next job was a complete inventory of existing antelope popula-

Mike Blair photo

A barbed wire fence is no obstacle for this leaping pronghorn buck as it clears the hurdle in western Kansas. This photo is rare; pronghorns usually cross fences by ducking their heads and slipping under the wire.

Gene Brehm photo

The north-to-south boundary line in the map below denotes the easternmost historic range of pronghorns in Kansas. The Flint Hills has a potential of .5 pronghorns per section.

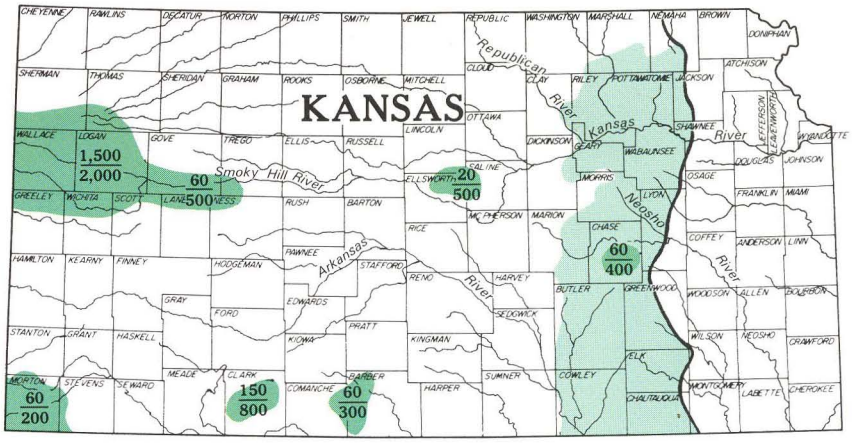
tions. Through follow-ups on public reports, landowner interviews and actual accounts, the leader determined that the Kansas pronghorn population consisted of 37 animals in Wallace and Sherman counties. These animals were nomadic and spent as much time in Colorado as they did in Kansas.

Further study showed that several areas in the state would provide suitable habitat for additional pronghorn releases. These areas were then ranked on the quality of habitat, man-made barriers to movement and public acceptance of the pronghorn. When the priority list was completed, public meetings were held to inform the public of our plans to release pronghorns in their area. Landowners received personal invitations, and the general public was informed through the media. If the re-introduction received favorable comments at the meeting, the site was put on a waiting list for pronghorns.

Through contacts with other states

Please turn to Page 6.

Antelope Distribution And Population Status



Patti Murphy map

Antelope Viewing & Photographing

Kansas antelope provide a photographer with endless opportunities to burn up film. Armed with a few good tips, you could return from a weekend trip with a new (or renewed) interest in wildlife photography.

My favorite areas to observe and photograph antelope would be Wallace and Clark counties. I've found the best concentrations in Wallace County north of Sharon Springs and 15 miles either side of Highway 27, and south of the North Fork of the Smoky River. The area 10 miles west of Ashland, on the north side of Highway 160 in Clark County, holds a herd of antelope that can be seen on most trips.

Remember that you must have permission to trespass on private property. Cooperating landowners can also point out the best places to view pronghorns.

Binoculars and a spotting scope will be a big help locating herds on the open plains. Once you spot a herd of pronghorns, you'll need to get within camera range. A small white flag held aloft on a stock will spark a pronghorn and should lure it into range. When all else fails, the old standby — stalking — will provide you with many hours of recreation.

September and October are good months to watch and photograph trophy-sized bucks in rut. January and February find pronghorns in larger herds and easier to find. Young pronghorns (fawns) may be observed from mid-May through July. — *Funk*

Gene Brehm photos

A pronghorn buck and doe are photographed in close quarters during the breeding season. Fawns (inset) weigh 5-7 pounds at birth.

Pronghorns Naturally

Pronghorns (*Antilocapra americana*), often called antelope, are the last remaining survivors of a family with fossil records that date back millions of years. The species is found only on the North American continent from Canada to Mexico. Unlike the African antelope, pronghorns shed the horn sheath annually; these horn sheaths are composed of fused hair. Evolution has left pronghorns without the dew claws found on our deer family.

Five sub-subspecies are recognized today: the Oregon, Mexican, Peninsular, Sonoran and the American, which is the most abundant and found in Kansas.

The head and body length of adult pronghorns range from 40 to 60 inches. The tails are 3-4 inches in length. At the shoulders, adult pronghorn bucks stand 35-40 inches tall. The horns of a Kansas buck will reach the 15-inch class; doe horns will seldom exceed 5 inches or have a prong. Coloration of the upper body ranges from brown to tan. Both sexes have black mane on their neck and white bands on the rump, underparts and under the neck. Unlike bucks, females lack the black cheek patch on both sides of the neck. The eyes of the pronghorn are roughly 2 inches in diameter and protrude from the skull such that the pronghorn can see nearly as well backward as forward. The body weight of adult pronghorn bucks range between 100 and 140 pounds; does are 20-30 pounds lighter.

Pronghorn hair is unique; each hair is actually a tiny air cell. These tiny air cells allow the pronghorn to regulate body temperature with ease. The white patch of hair on the rump also acts as a visual warning system. When alarmed, the pronghorn stands the rump patch hair up, effectively doubling the white and thus warning others of impending danger.

Pronghorns breed in September and October and have a gestation period of 250 days. A doe will generally have only one fawn the first birth and twins thereafter. Fawns weigh 5-7 pounds at birth and remain inactive their first few days but are able to outrun a man by the fifth day. Does breed at 15-16 months of age and may live for 10-15 years. Often called the swiftest North American animal, pronghorns can reach speeds of 40 mph for short distances and sustain speeds of 30 mph for greater distances. — *Funk*

Ron Spomer photo

Biologists herd antelope in a Colorado-Kansas trap-and-transplant operation.

Antelope Hunting In Kansas

A long-term objective of the antelope reintroduction project was to provide pronghorns for sport hunting. Kansas has had a pronghorn season since 1974. This table traces the historic and modern pronghorn harvest. — *Funk*

ARCHERY and FIREARMS, PRONGHORN HARVEST SUMMARY

Year								
1861-1902	Pronghorn were not protected. No harvest data available.							
1903-1920	No open pronghorn season.							
1921-1924	Pronghorn were not protected. No harvest data available.							
1925-1973	No open pronghorn season.							
			FIREARMS					
Year	*Dates Open*	*Days*	*Applications Received*	*Permits Available*	*Active Hunters*	*Man Days*	*Harvest*	*Percent Success*
1974	Sept. 28-30	3	492	80	72	82	70	97.2
1975	Sept. 27-29	3	288	80	78	88	76	97.4
1976	Oct. 1-3	3	524	80	77	91	72	95.5
1977	Oct. 8-10	3	501	100	96	106	91	94.8
1978	Oct. 7-9	3	596	100	97	111	90	92.8
1979	Oct. 6-8	3	688	100	94	100	91	96.8
1980	Oct. 4-6	3	749	160	148	170	142	95.9
1981	Oct. 3-5	3	853	190	180	314	169	93.9
1982	Oct. 2-4	3	838	190	181	454	171	94.5
1983	Oct. 1-3	3	984	390	362	430	321	88.7
1984	Sept. 29-Oct. 1	3	960	420	390	508	337	86.4
1985	Oct. 12-14	3	874	270	250	337	208	83.2
1986	Oct. 11-13	3	813	248	223	328	192	86.1
1987	Oct. 10-12	3	999	266	254	362	216	85.0
			ARCHERY					
1976	Sept. 25-29	5	54	50	42	131	7	16.7
1977	Oct. 1-5	5	59	60	52	182	4	7.7
1978	Sept. 30-Oct. 4	5	87	60	50	148	4	8.0
1979	Sept. 29-Oct. 3	5	86	80	73	211	2	2.7
1980	Sept. 27-Oct. 1	5	60	80	51	163	10	19.6
1981	Sept. 26-30	5	95	100	86	270	12	13.9
1982	Sept. 25-29	5	74	100	69	233	11	15.9
1983	Sept. 17-25	9	142	150	127	487	18	14.2
1984	Sept. 8-23	16	144	150	116	574	12	10.2
1985	Sept. 28-Oct. 6	9	99	150	84	274	6	7.1
1986	Sept. 27-Oct. 5	9	75	150	57	207	4	7.0
1987	Sept. 26-Oct. 4	9	62	150	51	191	8	15.7

having pronghorn populations, it was determined that surplus animals would be made available for our restoration program.

Trap and Transplant

With all the groundwork completed, the monumental task of attempting to rebuild the state's pronghorn population was under way. By mid-1963, agreements had been reached with the state of Montana to live trap and transport pronghorns to Kansas. In November 1964, 84 animals were captured, transported and released in Wallace and Sherman counties. Thirteen of these animals were known to have perished that same winter.

Colorado was next to come to the aid of the dwindling Kansas pronghorn herds by sending 61 animals to Barber County in 1966. Eight additional pronghorns were released that year on the Maxwell Game Refuge. In 1967, 50 pronghorns were removed from a semi-captive herd on a military compound in Nebraska and released in Ellsworth County. Upon release on open range, these animals dispersed up to 90 miles from the release site, resulting in a non-reproductive herd.

Then in January 1978, a Kansas trapping crew traveled to Wyoming and returned with 100 pronghorns. Clark County received 63 of these animals, and the remaining 37 were released in Chase County. Trappers returned to Wyoming the following January and returned with the largest number of animals to date (351), which were returned and released in five different counties. Chase County received 98, Ellsworth 75, Clark 74, Morton 36 and 68 went to Gove.

Colorado became the donor state again in 1982 when they supplied the state of Kansas with 95 pronghorns. Chase County received 77 animals to bolster the 1979 release and Morton County received the remaining 18 pronghorns.

Part of the surplus pronghorn population was trapped and removed from the Wallace County herds in 1981 and 1983. Fifty were captured in 1982 and 53 in 1983. These animals were used to supplement earlier releases in Kansas.

Pronghorn Management

The current pronghorn management plan is threefold:

- Continue to expand existing populations to the land's carrying capacity.
- Provide sportsmen with the maximum number of hunting days and animals harvested without jeopardizing the population expansion goals.
- Provide non-consumptive opportunities to wildlife watchers and photographers.

The largest populations occur in Wallace and Sherman counties and are monitored annually by aerial surveys. A population count is conducted in late January or early February. This survey is flown north to south at one-mile intervals. The population figures derived from this flight are used to calculate the pronghorn population levels. Figures from these flights are then used to set the fall pronghorn season.

The second survey is flown in late July or early August to inventory the fawn production. As with the winter flight, the production flight is flown north to south but at one-half mile intervals. The timing of this flight is such that most fawn mortality has already occurred.

Antelope have always been a part of the Kansas wildlife scene. Our responsiblity to future generations is to ensure that this animal continues to flourish here. W&P

Pronghorn Antelope & Bindweed

In the fall of 1981, the old Fish and Game Commission informed the public of a possible pronghorn release. But members of the audience expressed concern that pronghorns were spreading bindweed. Landowners said they'd observed pronghorns grazing on bindweed-infested agriculture land. These animals were believed to pass viable seed through their digestive systems and thereby start new bindweed communities. In an effort to determine the role of pronghorns in bindweed dispersal, the Commission began studying the question that year.

Literature review revealed that field bindweed (*Convolvulus arvensis L.*) is found primarily in cultivated fields and that it flowers and sets seed from May through October, although it's known to bloom and set seed the year round in protected areas and reproduce from roots, rhizomes and seeds. Bindweed seeds can remain viable in the soil for more than 30 years. As far back as 1941, field bindweed was found in all 105 Kansas counties after being introduced from Europe. In 1981 the top field bindweed producing counties were Ellis, McPherson and Marion (all three counties were void of pronghorns at the time).

The first study undertaken was an attempt to document viable field bindweed seed in pronghorn fecal samples. Pronghorn hunters were asked to collect fecal samples from the animals they harvested during the 1981 season. Of the 145 samples collected, 122 were separated and examined for seed. Thirty-five of these samples contained various seeds, 24 contained only prickly pear, and nine contained other seeds such as wheat, milo and prostrate knotweed. Field bindweed seed was not found in any samples.

A second attempt to document pronghorn spreading bindweed was made when a Fort Hays State University student followed a band of pronghorns during the summer of 1982 and collected pellet groups. These samples were dried and examined just as in the first study, and the results were the same. No bindweed seeds were found.

A third study conducted by Ryan, Pojar and Townsend, out of Fort Collins, Colo., force-fed bindweed seed to tame pronghorns to determine if seeds could be passed and, if so, determine the viability of those seeds. Of the 2,000 seeds fed to the animals, only 369 (18.5 percent) were recovered (the rest were mechanically or chemically destroyed.) Germination tests were performed on the recovered seeds, and only 25 seeds germinated.

In addition, Mark Sexson conducted a two-year study of pronghorn diets in Kansas during 1977 and 1978. This research was conducted as part of a master's degree program at Fort Hays State University and has since been published. The conclusion reached was that field bindweed did not contribute to pronghorn diet; the study failed to find bindweed seed as a dietary item.

These studies and the records examined have failed to document that pronghorn spread bindweed. Those animals do eat some bindweed but mainly confine themselves to the plant parts and not the seed pods. When eaten, as noted by the Colorado study, pronghorns actually destroy the major portion of the seed ingested. — *Funk*

Studies have failed to document that pronghorn spread bindweed (below). One study failed to find bindweed seed as a pronghorn dietary item.

Mike Blair photo