

The Smithsonian Book of  
**North American  
Mammals**



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## Antelope jackrabbit | *Lepus alleni*

Antelope jackrabbits inhabit the desert plains of southern Arizona southward into northern Nayarit, Mexico; a population is also present on Tiburon Island in the Gulf of California. This hare occurs at elevations from near sea level in Mexico to 1,500 meters in southern Arizona. Fossils resembling *L. alleni* are

known from middle Pleistocene (Irvingtonian) deposits in Sumter County, Florida.

This colorful jackrabbit is nocturnal and crepuscular, and it rarely utters sounds. When browsing on mesquite (*Prosopis*) it rears up on its hind feet, its forefeet hang limp, and its ears flop



*Lepus alleni*

freely. Attempting to reach higher, it stands on its toes and places its forepaws on a branch to crop off leaves, bark, or buds. It does not have burrows, but it may have nests beneath the ground level with some hair as lining. It rests by day in places known as shelter forms, which may be made by backing up next to or under clumps of grass, weeds, or brush. These are often merely sitting places beside a cactus or mesquite that show no evidence of digging or scratching.

*L. alleni* may be the fastest member of the genus, with running speeds of up to 72 kilometers per hour. When it runs, a conspicuous white area is displayed on the rump. This white area appears to shift each time the jackrabbit turns, the white being kept toward the observer. This flash of white while running resembles that of the pronghorn antelope, giving the animal one of its common names.

Antelope jackrabbits have large, whitish ears that are nearly naked except for long fringes of white hair on the edges and tips. The large surface areas of the ears are probably significant sites of heat exchange with the environment, and may help cool the animal. The upperparts of the body are yellowish brown, strongly mixed with black. The sides, including the outer side of the limbs, hips, and rump, are white with fine black points on some of the hairs. The chin, throat, undersurface, inner sides of the forelegs, and tail are white.

The breeding season is from late December through September. The gestation period is about 6 weeks in length. The average number of young per litter is two (range, 1–5), and a female may have three or four litters per year. The young are precocial, as are all hares; that is, at birth the young are fully clothed with hair, their eyes are open, and they can hop. Newborns do not show the characteristic white rump. The mother may scatter her young at, or soon after, birth, and return at night to nurse them. The duration of parental care is short; the young hares become independent in a matter of days.

The antelope jackrabbit occurs in a variety of habitats. It appears to favor areas where grasses, mesquites, and catclaws (*Acacia*) abound, but it also occurs in desert habitats having little grass. *L. alleni* lives on dry valley slopes distant from water sources, and if water is available, it does not drink. The diet primarily consists of green grass, other green vegetation, and many species of cactus. Its food is highly succulent, with cactus increasingly consumed as drought conditions become more severe. Digestive powers are rapid and efficient. Food apparently traverses the digestive tract in about 12 hours. Antelope jackrabbits seek minerals by digging into and biting the soil.

The average size of a home range is 643 hectares and population density is often about 0.5 per hectare, but the hares may become so numerous at times that 12–15 can be seen at once. In recent years, the number of antelope jackrabbits has decreased significantly in areas of southern Arizona where Lehmann lovegrass (*Eragrostis lehmanniana*) has been intro-



duced and become established, replacing the native vegetation favored by the hares.

In much of southern Arizona, *L. alleni* and *L. californicus* occur in equal numbers. These species often are seen together, sometimes sitting under the same bush or running side by side. On grassy slopes at elevations of about 1,050 meters, *L. alleni* usually is several times as numerous as *L. californicus*, but in the mesquites along the valley bottoms and on the barren creosotebush desert, *L. californicus* usually is more numerous.

#### Size

No significant sexual dimorphism

Total length: 553–670 (622) mm

Length of tail: 48–76 (58) mm

Weight: 2,700–5,900 (3,800) g

#### Identification

Compared with other species of hares in North America, the antelope jackrabbit is large; the ears are especially large. It can be distinguished from *Lepus californicus*, the only other hare that shares its range, in having ears that are white

on the outside and without black tips, sides of body that are pale grayish rather than brownish, and longer ears on average.

#### Other Common Names

Allen's hare, Allen's jackrabbit, wandering jackrabbit, blanket jack, saddle jack, Mexican jackrabbit, burro jack, jackass rabbit

#### Status

Common

In southern Arizona, antelope jackrabbits occupy the same habitat as black-tailed jackrabbits, round-tailed ground squirrels, Harris's antelope squirrels, white-throated woodrats, Arizona, Bailey's, and desert pocket mice, Merriam's and banner-tailed kangaroo rats, southern grasshopper mice, desert cottontails, skunks, badgers, coyotes, peccaries, and mule deer. Predators include bobcats, coyotes, and golden eagles. Parasites include cestodes, nematodes, chiggers, fleas, and botflies.

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#### Subspecies

*Lepus alleni alleni*, south-central Arizona and most of Sonora, Mexico

*Lepus alleni palitans*, southern Sonora to northern Nayarit, Mexico

*Lepus alleni tiburonensis*, Tiburon Island, Gulf of California, Sonora, Mexico

#### References

*Mammalian Species* 424; Hoffmeister, 1986;  
Vorhies and Taylor, 1933