

The Smithsonian Book of  
**North American  
Mammals**



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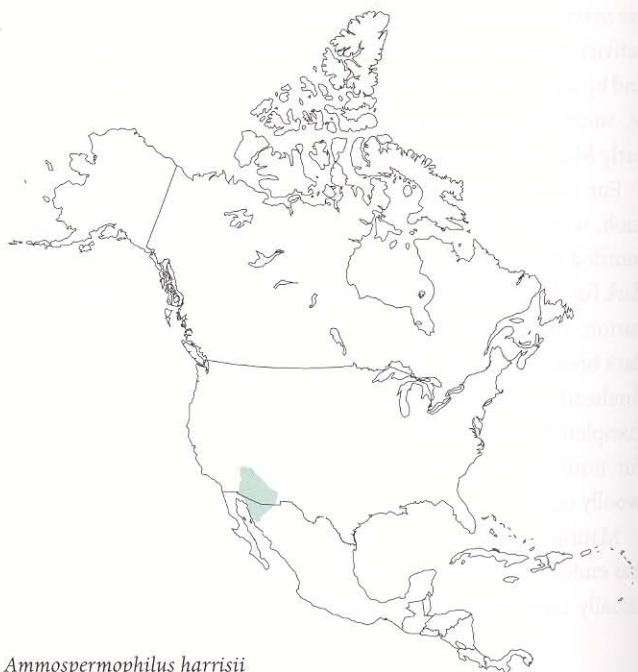
## Harris's antelope squirrel | *Ammospermophilus harrisi*

Harris's antelope squirrel occurs below 1,350 meters elevation in the southwestern United States and northwestern Mexico. No fossils of *A. harrisi* are known.

This diurnal species is active even in the hottest part of the day. It does not hibernate, and is active every month of the year. Harris's antelope squirrels are vigorous runners. They scurry about the desert floor, stopping frequently to dig, and shallow holes in the soil are clear signs of their presence. At times, these antelope squirrels sit atop bristle-spined cholla cactus to view the surrounding area. How they negotiate the climb over the thorns is a mystery, for the soft pads of their feet never contain spines, nor are there scars to indicate former difficulties. They commonly sit erect on their hind feet. When disturbed, *A. harrisi* runs with its tail straight up in the air, uttering chipperings as it hurries to nearby shrubbery to enter a burrow. Before escaping, it often stops, calls, and stamps with its forepaws. As in other *Ammospermophilus*, the calls are long, high-pitched trills.

Size is medium for the genus, the tail is medium to short, and the ears are small. Each foot has five toes. The back is pale brown to blackish, and there is one whitish stripe along each side of the body. Color around the eye, throat, chin, inner surface of the legs, and the whole underside of the body is whitish, with a few black hairs interspersed. A line of whitish-yellow on the flanks distinctly separates the color of the back and sides from that of the undersurface. The hairs are short and somewhat coarse, but lie smoothly, giving the animal a glossy appearance. Geographic variation is primarily in size rather than in color.

Harris's antelope squirrels breed in December or January and usually produce one litter of five to nine young per year. The gestation period is about 30 days. Females prepare a round nest that is often completely covered with nest material, leaving only one opening. Newborn antelope squirrels are naked, with pink, rather transparent skin. Their eyes and ears are closed. They cannot crawl, but they can right themselves when placed on their backs. Their mass at birth averages 3.6 grams.



*Ammospermophilus harrisi*

(range, 3.0–4.1). At three weeks, their claws are well developed, but the young still cannot walk without falling over. They are very vocal even at this age and frequently utter a half-muffled trill, especially when they are disturbed. At 3–4 weeks, the ears open and the young are fully covered with short hairs, resembling adults. Young first emerge from their burrows at 4–5 weeks of age, when the eyes have just opened. At seven weeks, they are weaned. Males may reach sexual maturity during their first year, but females do not come into breeding condition until the spring following their birth.

Harris's antelope squirrel occupies a variety of desert habitats. It is the most conspicuous small diurnal mammal of the desert plains from Tucson, Arizona, to the Colorado River, but it has a spotty distribution. Its burrows are usually under a desert shrub such as palo verde, mesquite, or creosotebush, but sometimes they are in the open. Other habitats include open areas in plains, valleys, canyons, and river bottoms.

*A. harrisi* is omnivorous. Its food is mainly the fruit and seeds of cactus, but numerous other seeds and green plants are eaten as well. Its forepaws, face, intestinal tract, and muscles are sometimes stained from the juices of cactus fruits, and the squirrels can suffer pricks from the small, sharp spines on the fruits. *A. harrisi* also feeds on seeds of the screw-pod mesquite,

shelling the beans and then carrying them in its cheek pouches to storage in the burrow. The capacity of the cheek pouches is considerable; one contained 44 mesquite beans. Stored food enables the squirrels to stay below ground during the coldest weather.

Harris's antelope squirrels are never found abundantly; they occur singly, here and there. Individuals have an average range of movement of 274 meters. In southeastern Arizona, density ranges from 0.08 to 0.36 per hectare, with greatest densities in late spring to late summer (0.24–0.36 per hectare) and lowest densities in autumn to early spring (0.08–0.24 per hectare).

*Ammospermophilus harrisi* is widely sympatric with the round-tailed ground squirrel, *Spermophilus tereticaudus*. These species often are found only a few meters apart in south-central Arizona, and have often been observed entering the same kangaroo rat dens. Other associated mammals include desert shrews, desert cottontails, antelope and black-tailed jackrabbits, pocket gophers, desert, Ord's, Merriam's, and banner-tailed kangaroo rats, several species of pocket mice, deer mice, cactus mice, grasshopper mice, desert and white-throated woodrats, badgers, coyotes, gray and kit foxes, bobcats, mule deer, and bighorn sheep. Parasites include nematodes, lice, ticks, and fleas. *T. L. Best*

#### Size

No significant sexual dimorphism  
Total length: 216–267 (238) mm  
Length of tail: 67–92 (79) mm  
Weight: 122 g

#### Identification

Harris's antelope squirrel differs from other similar-sized ground squirrels by its grayish dorsum and tail and by the presence of one white stripe along each side of the body from shoulder to rump. It is distinguished from other members of the genus by the mixed black and white undersurface of the tail; other *Ammospermophilus* have a white undersurface of the tail.

#### Recent Synonyms

*Spermophilus harrisi*



#### Other Common Names

Harris's spermophile, marmot squirrel, gray-tailed antelope squirrel, Yuma antelope ground squirrel

#### Status

Common

#### Subspecies

*Ammospermophilus harrisi harrisi*, western and southern Arizona, western New Mexico, and north-central Sonora, Mexico  
*Ammospermophilus harrisi saxicolus*, southwestern Arizona and northwestern Sonora, Mexico

#### References

*Mammalian Species* 366; Neal, 1965a, 1965b