

Mule deer (*Odocoileus hemionus*) and white-tailed (*Odocoileus virginianus*) deer are the only two species of deer occurring in the southwestern U.S.. Ten subspecies of mule deer are recognized throughout the species' range, which includes most of western North America down to southern Mexico. The desert mule deer is the subspecies found in southeastern Arizona. White-tailed deer occur from southern Canada throughout most of the contiguous United States, south to northern South America. Thirty-eight subspecies of white-tailed deer are recognized throughout its range, with the Coues white-tailed deer the subspecies inhabiting southeastern Arizona.

Mule deer are usually found from 200' to 7,300' elevation and inhabit a number of habitats in southern Arizona, including Sonoran desertscrub, grasslands, chaparral, and pinyon-juniper and oak woodlands. White-tailed deer are usually found above 4,000' elevation and mainly inhabit woodland communities, but they can also be found in desertscrub, and ponderosa pine and deciduous forests.

Mule deer and white-tailed deer have similar diets in areas where they coexist. Both species depend heavily on browse (woody plants and shrubs) throughout much of the year. After seasonal rains, forbs (broad-leaved weeds) make up an important part of their diets, and fruits and nuts are relished when they're available. Grass provides only a small portion of deer diets. Although both species of deer depend on freestanding (surface) water, especially during the hot, dry summer months; they can also utilize preformed water (i.e., water contained in food).

Desert mule deer breed (rut) from December to February and fawn from July to August. White-tailed deer breed from December to February and fawn from July to September. Deer gestation lasts approximately 200 days. Fawn numbers and their

survival rates depend on good nutrition. Since rainfall affects the amount and quality of food available; it can be an important influence on deer populations.

Deer populations are also affected by mortality (i.e., the rate at which they die). Deer usually die from malnutrition, hunting (legal and illegal), predation, disease, parasites, and accidents.

Deer are important to Saguaro National Park, not only to the functioning of its ecosystems, but because people enjoy seeing them. The Park has long recognized the importance of monitoring trends in deer numbers. Recent evaluation of deer survey data from the 1930's to the present has indicated some notable changes. In the past 20 years, mule deer populations seem to be declining both within the park, and across the state, probably largely due to drought conditions. In the Rincon Mountain District of the Park, white-tailed deer, which are generally found in the upper elevations of the park, have moved into lower elevation habitats, and appear to be replacing mule deer. Biologists seek to further quantify and understand the status of both species of deer in the Park through continued aerial and ground surveys. Your observations of deer in the Park can add to our database, particularly if you can identify which species you see (see chart). Please report your deer sightings to Park Rangers or Visitor Center staff. Remember to note the location, date, number of deer seen, and their species and sexes, if possible.

The National Park Service is committed to ensuring that both mule deer and white-tailed deer remain residents of Saguaro National Park, and that visitors will always have the opportunity to see these beautiful animals in their natural environment.

**Identifying characteristics to distinguish between mule deer and white-tailed deer (from
 “Deer of the Southwest” by Jim Heffelfinger, published by Texas A&M University Press in
 2006).**

CHARACTERISTIC	MULE DEER	WHITE-TAILED DEER
Tails	Cylindrical Usually white on dorsal side with distinctive black tip, surrounded by large white rump < 71/2 inches long	Wide, flattened tail that is broad at base and narrow at tip White underside contrasts with dark dorsal side Edged with white fringe hairs Large white rump patch > 7 ½ inches long
Antlers (Least informative characteristic to use in distinguishing deer because of the amount of variation that can be present.)	Small brow tines if present Main beams sweep out and upward forking once with each fork dividing again 8 points or 10 if brow tines present	Several antler tines rising independently off the main beam that sweep outward and forward from the base Brow tines nearly always present and usually prominent 8 points including the brow times
Facial Markings	Distinctive black forehead contrasting with light gray face Less obvious eye rings and nose	Forehead same color as rest of face White eye rings and nose markings prominent
Ears	~9 ½ inches long ~ ¾ length of head	~7 inches long ~ 2/3 length of head
Flight Behavior	Does not “flag” tail Bounds by pushing off with all four hooves at the same time (i.e., “pronks” or “stots”)	“Flags” tail Runs directly away from source of danger
Metatarsal Glands (gland on the outside of the lower hind leg)	3-7 inches (desert mule deer ~5 inches) Starts at ankle joint and extends downward toward hoof	1 inch or less and encircled by white hairs (Coues deer ~½ inch) At midpoint or below midpoint on the lower shank of leg
Preorbital Glands (gland on face, in front of the eyes)	Substantial pocket with a depth ~¾ inch	Small slit with a maximum depth of 3/8 inch



desert mule deer



Coues white-tailed deer