

## MAMMALS OF WUPATKI NATIONAL MONUMENT

Wupatki National Monument lies in a corner of the Great Basin Desert often called the Navajoan Desert, because of the presence of the Navajo Nation in this area. As the name "desert" implies, the climate of the monument, situated in the rain shadow of the San Francisco Peaks, constantly challenges and sharpens the survival skills of the animals living here.

The most common mammals of the area are, not surprisingly, the rodents. Their small size, ground dwelling habits, and resulting lack of mobility make them especially susceptible to the extremes of temperature and lack of standing water characteristic of deserts. Consequently, they have evolved a very efficient life style. While they will not shun water if available, most desert rodents do not need a source of drinking water. They rely instead on the moisture in their food for their metabolic needs. They avoid the searing dry heat of the day by spending it in the shade of underground burrows, and couple this with extreme conservation of water in urine and feces. The humidity of their burrows has been measured at several times that of the atmosphere, while underground temperatures can be as much as 30° degrees cooler than ambient temperature.

The Great Basin Desert, hot and dry in the summer, is a high plains desert, and can be very cold in the winter, occasionally disappearing under a thin blanket of snow. To survive this extreme range of yearly temperatures, most small mammals sleep or hibernate through the winter, waking only occasionally to feed on stored caches of food.

Unfortunately, the park visitor has little chance of seeing these highly adapted creatures, except in a second-hand manner. Evidence of nocturnal forays into granola bags and backpacks, or missing shoe laces stolen by an avaricious packrat are often viewed as mixed blessings!

However, the observant and patient visitor can catch glimpses of some of the larger, diurnal (active in the daytime) mammals. The black-tailed jackrabbit can often be seen bounding away on his zig-zag course. The jackrabbit is not really a "rabbit," but is a "hare." Jackrabbits are born with hair, and with eyes open, whereas "bunnies" are blind and hairless at birth, to cite one of the differences.

In the early morning, the visitor can sometimes see a herd of pronghorn antelope in the grassy areas of the monument. The pronghorn, recognized by a brilliant white rump patch, is unique among mammals in that it has a horn, not an antler, but it sheds its horn every year. Most horned mammals, like cows, only get one set per lifetime.

Around the Visitor Center, one might see a whitetail antelope squirrel. If he spots you eyeing him he will freeze and wiggle his white tail at you, which he carries over his back. Presumably, this quivering white patch serves to break up the animal's outline, so that a predator, such as a soaring hawk, cannot recognize it as the body of a squirrel.

Desert mammals are generally paler in color than their relatives of milder climates and are usually very secretive in their habits. This is due to the sparcity of cover in the desert, and due to their habit of conserving energy in the heat of the day. But with careful observation, the visitor can be rewarded with a glimpse of these creatures, and can marvel at their ability to survive in this beautiful but harsh land.

Linda Pavlich

CHECKLIST OF MAMMALS - SUNSET CRATER-WUPATKI

(tentative list -

Order Artiodactyla	
Family Cervidae	Mule deer ( <i>Odocoileus hemionus</i> )
Family Antilocapridae	Pronghorn ( <i>Antilocapra americana</i> )
Order Carnivora	
Family Mustelidae	Longtail weasel ( <i>Mustella frenate</i> ) Striped skunk ( <i>Mephitis mephitis</i> ) Spotted skunk ( <i>Spilogale gracilis</i> ) Badger ( <i>Taxidea taxis</i> )
Family Canidae	Grey fox ( <i>Urocyon cinereoargenteus</i> ) Coyote ( <i>Canis latrans</i> )
Family Felidae	Bobcat ( <i>Lynx rufus</i> ) Cougar ( <i>Felis concolor</i> )
Order Lagomorpha	
Family Leporidae	Black tail jackrabbit ( <i>Lepus californicus</i> ) Desert cottontail ( <i>Sylvilagus auduboni</i> )
Order Rodentia	
Family Erethizontidae	Porcupine ( <i>Erethizon dorsatum</i> )
Family Sciuridae- Squirrels	Rock Squirrel ( <i>Spermophilus variegatus</i> ) Whitetail antelope ground Squirrel ( <i>Amospermophilus leucurus</i> ) Spotted ground squirrel ( <i>Spermophilus     spilosoma</i> ) Whitetail prairie dog ( <i>Cynomys gunnisoni</i> )
Family Geomyidae	Pocket gopher ( <i>Thomomys bottae</i> )
Order Rodentia	
Family Heteromyidae	Pocket mouse ( <i>Perognathus spp.</i> ) (flavus, apache, amplus, intermedius) Kangaroo rat ( <i>Dipodomys ordi</i> )
Family Cricetidae - woodrats	Grasshopper mouse ( <i>Onychomys leucogaster</i> ) Harvest mouse ( <i>Reithrodontomys megalotus</i> ) Deer Mouse ( <i>Peromyscus maniculatus</i> ) Canyon mouse ( <i>P. crinitus</i> ) Brush mouse ( <i>P. boylei</i> ) Mexican woodrat ( <i>Neotoma Mexicana</i> ) Whitethroat woodrat ( <i>N. albigula</i> ) Desert woodrat ( <i>N. stephensi</i> )
Order Chiroptera - Bats	
Family Vespertilionidae - Plainose	Myotis ( <i>Myotis spp.</i> ) Pipistrel ( <i>Pipistrellus spp.</i> )
Family Molossidae	Freetail bats ( <i>Taridra spp.</i> )
Order Insectivora	
Family Soricidae	Shrew ( <i>Sorex merriami</i> ) Desert shrew ( <i>Notiosorex crawfordi</i> )