

LARGE UNGULATES: DEER

Rocky Mountain Mule Deer (*Odocoileus hemionus*)

Mule deer are common in the western United States and Vermejo is home to the Rocky Mountain mule deer subspecies that live in habitats from the shortgrass prairie up to the subalpine forest of the property. The deer mostly frequent the oak shrublands, pinyon-juniper woodlands and ponderosa pine forests.

Mule Deer Biology

Mule deer have larger bodies than white-tailed deer, with big mule-like ears giving them their name. The mule deer have a darker forehead with a lighter face and white or light coloring on their throat. Their body is generally tan but may become grayer in winter. Occasionally mule deer at Vermejo will have a more red-brown coloring than the more common buff or tan. The mule deer have a white rump with a black tail. Mule deer bucks weigh roughly 150 up to 300 pounds and does weigh between 100-150 pounds.

The mule deer's large ears give the deer excellent hearing, and the ears can move independently to focus on sounds. A mule deer will use a 'stotting' or 'pronking' gait to bound away from potential predators or when startled. The deer also have a very good sense of smell and great eyesight.

Antlers

Mule deer antlers bifurcate (branch or fork) while white-tailed deer antlers grow off the main beam. This gives the antlers of mule deer and white-tailed deer very different conformations. Bucks shed their antlers every year in early spring. A large mule deer antler on Vermejo typically has 4 main points but it is possible to have additional points called "cheaters". A heavy mule deer antler can weight about 2 or 3 pounds. The antlers regrow in velvet through the summer, the velvet is rubbed off, and the antlers are then ready again for the late fall rut.

Diet

Mule deer are mostly browsers but eat a wide range of plants including mountain mahogany leaves and stems, forbs (including wildflowers), some grasses, Gambel's oak, acorns, morning glory vines, willow leaves, narrowleaf cottonwood saplings, prickly pear pads, yucca blooms, and even ball cacti. Mule deer will also eat ponderosa pine needles, Rocky Mountain Juniper needles and "berries", and can be seen pawing or digging up duff to find buried fungi. Rocky Mountain elk are primarily grazers but there is likely some overlap in competition for resources with mule deer, especially in winter when elk may browse more frequently.

Reproduction

The mule deer rut on Vermejo usually occurs in late November and into December and fawns are born the following June. The fawns have a series of white spots to help camouflage them from predators when hiding in shady grasses and it is not uncommon for mule deer does to give birth to twins. Recruitment rates for mule deer are less well known as compared to elk as the deer populations are more difficult to survey. Mule deer does that live around Vermejo's headquarters seem to choose to birth near humans and their buildings. It is possible they are making this choice because of the lower presence of predators near human structures.

Symbiosis

Mule deer can develop symbiotic relationships with birds like the black-billed magpie. The birds hitch a ride on the deer to feed on ticks. The deer benefit from having the parasites removed.

Life Expectancy and Mortality

The life expectancy of a mule deer doe is about 12 years and 8-10 years for a mule deer buck. The primary predator of adult mule deer on Vermejo are mountain lion. Predators of mule deer fawns include coyote, black bear, golden eagles and bobcats. Survival rates of fawns is somewhat correlated with precipitation and the availability of grass as cover to hide from predators.

Mule deer populations can be susceptible to chronic wasting disease (CWD), blue tongue virus (BTV), and epizootic hemorrhagic disease (EHD). High fevers are believed to cause sterilization of bucks which may result in 'cactus' antler growth where antlers grow abnormally and remain in velvet. These antlers typically are not shed and continue to grow abnormally throughout the life of the buck.

Management

In general, mule deer populations in the west are lower than population numbers from the mid 1900's. This may be due to habitat loss, competition with elk, drought, and/or disease. Some biologists feel the peak of the mule deer population in the 1960's was artificially high. The current mule deer population in New Mexico and on Vermejo seems to be stable. Vermejo biologists are working to develop better survey techniques for mule deer in order to better track mule deer population trends.

White-tailed Deer (*Odocoileus virginianus*)

Vermejo's shortgrass prairie and adjacent riparian corridors have small populations of white-tailed deer. The white-tail seldom move up from the prairie into the forested portions of the property but sometimes an individual deer will be seen in higher elevations. White-tailed deer are known to occasionally hybridize with mule deer. The white-tailed subspecies found in the lower elevations of Vermejo is related to a subspecies of white-tailed deer from Texas.

White-tailed Deer vs Mule Deer

The white-tailed deer have a smaller body than mule deer and have a different antler formation with the prongs coming directly off the main beam instead of forking or branching. The deer will flick their white tail in alarm, hence their name. It is a very noticeable signal that clearly denotes a white tail from a mule deer.

Prairie Habitat

White-tailed deer on the prairie are often found along riparian corridors where the deer can browse on riparian shrubs such as willows. The deer also eat young cottonwood trees, forbs, chokecherry, and cacti species. There is some concern from neighboring properties that white-tailed deer are beginning to replace mule deer in this habitat. Mountain lion are likely the most common predator of white-tailed deer on the Vermejo's shortgrass prairie.

Frequently Asked Questions:

1. **Why do mule deer bucks rub their antlers on trees?** Mule deer bucks rub their antlers on trees to remove velvet, mark territory, and sometime to help shed their antlers. This often will kill or stunt a small tree.
2. **Are deer related to elk?** Both elk and deer are members of the Deer family (Cervidae) along with moose and caribou.
3. **Do mule deer use vocalization like elk?** Mule deer do use some vocalizations to communicate. Bucks will grunt during the rut and does and fawns may bleat to communicate. However, vocalizations by mule deer are not as extensive as those used by Rocky Mountain elk.