

# Mule Deer

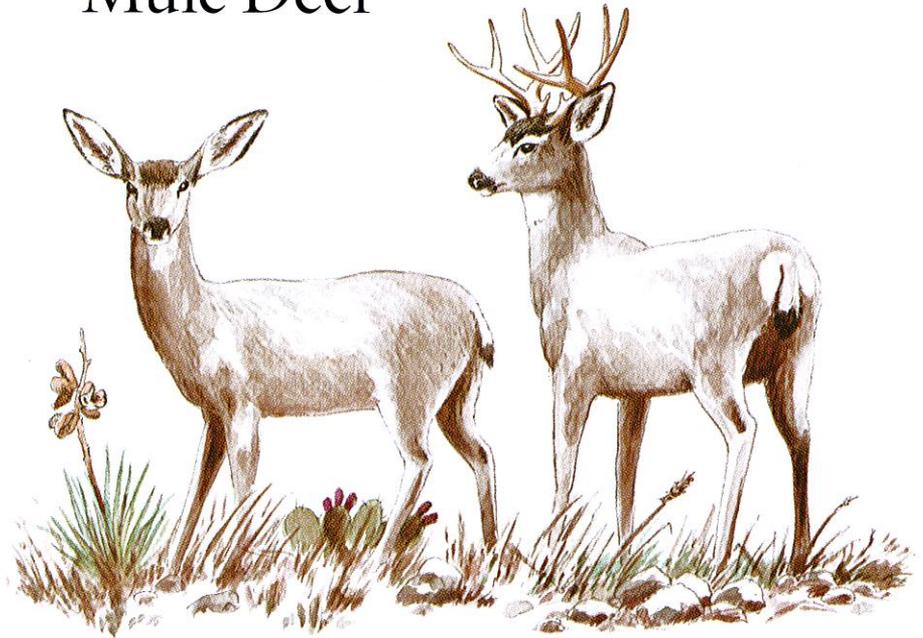
**SCIENTIFIC NAME:** The mule deer (*Odocoileus hemionus*) is one of the most recognizable icons of the American Southwest. Most people associate this deer with rugged, wild places. The scientific name *hemionus* literally means “half-mule,” because this deer’s long ears resemble those of a mule.

**DESCRIPTION:** A mature mule deer buck’s antlers are different from those of a whitetail in that they fork once and then each fork splits again. The mule deer’s tail is not flag-like, but more cylindrical like a rope, and has a distinctive black tip surrounded by a large, white rump patch. Mule deer bucks in northern Arizona average about 101 pounds for yearlings, 185 pounds for 4- to 5-year-olds, and 194 pounds for bucks over 6 years old. Mule deer bucks in southern Arizona weigh about 20 to 30 pounds less.

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**DISTRIBUTION:** Mule deer occupy most of the undeveloped areas of Arizona. Two subspecies are sometimes recognized (Rocky Mountain and desert), but no definitive characteristics can be used to differentiate northern Arizona deer from their southern cousins. It is more reasonable to recognize that mule deer look different depending on the environmental conditions in which they live.

**HABITAT:** In northern Arizona, mule deer inhabit higher-elevation areas of ponderosa pine in the summer. Some of these populations migrate to lower elevations during the winter and subsist on browse (leaves and twigs of brush) when snow



covers their summer habitat. Mule deer in southern Arizona occupy a variety of vegetation associations, from the Chihuahuan and Sonoran deserts to pinyon-juniper, dense chaparral and oak woodlands.

**BIOLOGY:** Mule deer are primarily browsers, with a majority of their diet (about 75 percent) comprised of forbs (weeds) and woody browse. Summer and winter rains offer an increase in forbs, allowing deer to switch to this highly nutritious supplement.

The breeding season (rut) occurs in the late fall (November–December) with single or twin fawns born in the summer (June–August). Rut and fawning occur even later in the southwestern part of the state. Antler growth begins in May, when these structures develop rapidly under a nourishing, protective covering of soft, velvet-like skin. In September, the antlers become fully mineralized when the velvet dries and is rubbed off. After the breeding season (March–April), antlers are shed and the cycle starts anew.

**STATUS:** Mule deer are relatively abundant in the state, but populations are roughly half what they were 20 years ago. This general decline has occurred throughout the West for different reasons. In Arizona, lack of rainfall throughout

the 1990s and continuing through the present has resulted in poor nutritional conditions for pregnant does. A lower number of fawns survives than is needed to maintain a stable deer population. Rainfall between October and March is the major driver of deer populations in Arizona. Several years of above-average winter rains are needed for deer populations to recover.

**MANAGEMENT NEEDS:** Precipitation may be the main factor affecting deer nutrition in Arizona, but range conditions play a large role in determining how much of that nutrition is available to each deer. Livestock grazing can affect deer nutrition if not managed properly. Human encroachment in the form of subdivisions and higher levels of recreation reduces the quality of the habitat and also creates a disturbance that reduces the usefulness of nearby unaltered habitat. The challenge will be to preserve high-quality habitat through the present deer population lows, so when normal precipitation resumes, the deer have something to come home to.

■ Jim Heffelfinger is the Arizona Game and Fish Department’s regional game specialist in Tucson. He eats, sleeps and breathes everything deer (especially the “eats” part).