

# Mule Deer of New Mexico

## FLUCTUATING POPULATION

The mule deer of New Mexico (*Odocoileus hemionus*) is a cherished wildlife species enjoyed by all New Mexicans that spend time in our state's wild country and rural areas. New Mexico's mule deer population consists of two subspecies, the Rocky Mountain mule deer and the desert mule deer. Rocky Mountain mule deer are found in the northern two-thirds of the state at the southern fringe of their temperate Rocky Mountain range. The desert mule deer in the southern third of the state are at the northern fringe of their arid range that extends into the southern portions of our state from Mexico.

Historically, New Mexico's mule deer population has fluctuated dramatically in response to the changes brought about by human settlement of their habitat. Mule deer numbers probably bottomed out around the turn of the century, with an estimated 40,000 animals statewide in 1900. Habitat loss and market and subsistence hunting after the Civil War and subsequent westward expansion were probably the major causes of the decline. However, deer populations began to rebound as human activities such as logging, grazing, and human-induced fires combined to alter natural forests and grasslands into deer-friendly shrublands. In addition, state and federal agencies were beginning to actively manage wildlife populations, control predator levels, and enforce regulated bag limits and hunting seasons.

As a result, mule deer populations climbed to approximately 150,000 by 1938, reached 250,000 in 1950, and peaked at 301,000 or more in the mid-1960s. As land management and wildlife management practices changed in the 1960s and 70s, the deer population began to decline from its historical high. Today, New Mexico's mule deer population may be as high as 200,000.

Although mule deer are our most common deer species, New Mexico also has populations of white-tailed deer in certain areas around the state. The Coues' white-tailed deer occurs in the southwestern portion of the state in Grant, Catron, Sierra, and Hidalgo counties. The eastern portion of the state has populations of white-tailed deer that are closely related to the white-tailed deer subspecies found in Texas.

## LIFE HISTORY

Mule deer possess keen eyesight and hearing, as well as an exceptional sense of smell. These senses are a deer's best protection against predators such as coyotes, mountain lions, and bears. Mule deer are considered browsers because they feed primarily on the nutritious leaves, stems, and buds of woody plants. Weeds, other forbs, and some grasses can also be important food items during parts of the year or when locally abundant.

The breeding season, or rut, typically takes place from October through January depending on latitude. At this time the does, juveniles and yearlings are joined by the mature male bucks, who pursue and breed with the does as they come into estrus. The males then leave the females and juveniles to spend most of the year alone or in bachelor groups. The bucks shed their antlers in early spring, and soon afterward begin growing new antlers for the coming year. Antler size varies greatly depending on the age and genetics of the buck, and the amount and quality of nutrients available to the buck during antler growth. Newborn fawns, heavily spotted to provide camouflage in vegetative cover, are born in June or July and are carefully hidden until they are able to join in their mother's travels.

## HABITAT

Mule deer are distributed throughout the state based on the availability of habitat that provides suitable food and cover. These areas range from low elevation deserts and piñon-juniper covered hills and canyons, to river bottoms and ponderosa forested high mountain country. Mule deer typically rest throughout the day in protective cover, and are most often seen by humans in the early morning or late afternoon and evening when they are actively moving and feeding.



## IMPACTS

The status of today's mule deer population is of great concern to many New Mexicans, whether they are avid naturalists, weekend hikers or sportsmen. It is widely acknowledged that current populations of mule deer are declining throughout the west. Many biologists believe that the mule deer populations of the 1960s may have been unnaturally high. The high numbers are often attributed to periods of high precipitation, and the temporarily improved deer habitat and declining predator populations resulting from the land management and wildlife management practices of the era. Today's land and wildlife managers manipulate habitats for a wider variety of uses and wildlife species whose needs are often different than those of deer. Current management practices have returned many deer-friendly shrublands back to their original forest or grassland conditions, and extended periods of drought and competition with other species like elk also have been important. As a result, deer populations have declined while species such as elk have seen dramatic increases during the same period of time. Many studies in the western U.S. are currently looking at this phenomena and its future implications.

New Mexico's climate and weather patterns are extremely important to deer survival. Periods of good rainfall can improve fawn survival by producing better forage and vegetative cover, but moisture at the wrong time (hard, snowy winters) or prolonged periods of drought, like the drought periods of recent years, can have devastating effects on fawn survival and overall deer numbers.

Two other possible factors in mule deer population declines are predation by mountain lions, coyotes and bears, and the encroachment of human development into mule deer habitat. Urban neighborhoods continue to encroach onto traditional wintering habitat, and conflicts with development and agriculture are increasing. The end result has been a corresponding decline in mule deer numbers.

## HUNTING

Mule deer have a well-deserved reputation as an alert, intelligent and highly adaptable animal, and are a challenging game



species to hunt. New Mexico's mule deer are managed on a unit-by-unit basis. Licenses are awarded for mature males, or "bucks", as well as for either sex hunts in some areas. Only bucks with forked antlers can be legally harvested. Hunts are available as over the counter "D hunts" or as special draw hunts in many areas of the state. Hunts are offered for archers, muzzle-loaders, and center-fire rifle hunters. There are special hunts for physically challenged hunters, as well as youth-only and military only hunts. Hunts take place on both public and private (with landowner permission) lands. The deadline for the special hunts drawing is usually in late April and results are typically available by mid-June. Over the counter "D hunts" are available to both residents and nonresidents with no application deadline.

Deer Entry-Permit hunts are allotted on a resident or nonresident basis. Details on hunting deer in New Mexico may be found in the current Big Game Proclamation. The Proclamations and applications for special hunts and over-the-counter licenses are available from New Mexico Department of Game and Fish offices and local vendors throughout the state.

### FUTURE OUTLOOK

Solutions to the problems that mule deer and many other wildlife species face are very complex. New Mexico's current mule deer decline is the result of many influences, some natural and others human-caused. Although managers cannot control weather patterns such as drought, some human-caused impacts may be reduced with specifically developed management strategies. The New Mexico Department of Game and Fish has developed a Deer Management Plan to implement actions that hopefully will result in increased deer survival, higher population numbers and increased public satisfaction with management of the state's deer herds. The actions will initially focus on six high priority units. Six additional units will be added as funds become available. Focusing on a limited number of units will allow the Department to maximize resources such as manpower, money and time. The Department hopes to achieve good results in areas that are initially most likely to benefit. By following well-defined and achievable steps, the management plan will ultimately expand to encompass the entire state.

The management plan will address five key areas: habitat, law enforcement, aerial surveys and harvest data, predator management and public relations. These action items have been designed to improve deer habitat, decrease poaching, gather more accurate data, increase fawn survival, and increase public awareness of the Department's ongoing efforts to improve deer populations throughout the state. With hard work and cooperation, mule deer will be enjoyed in New Mexico for many generations to come.



Photo: Joe Roybal



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