

Mule Deer
Working Group

Fact Sheet

HISTORICAL AND CURRENT MULE DEER ABUNDANCE Fact Sheet #32

INTRODUCTION

Mule deer and black-tailed deer (a coastal subspecies of mule deer) are the most abundant big game species in the West. Mule deer occupy a broad geographic range and diverse habitats from central Mexico to Canada's Yukon and from the Pacific Coast to the eastern Great Plains. Their populations can fluctuate dramatically through time in response to changes in habitat, environmental conditions, disease, predators, and harvest management. Therefore, when mule deer are declining in different parts of their range, it is usually for different reasons and no single solution will increase mule deer populations everywhere. Because of their popularity and wide distribution, mule deer are one of the most socially and economically important animals in western North America. The public expects wildlife agencies to maintain abundant populations of this charismatic species, with expectations often exceeding what their habitats will sustain.



Photo: Bruce Watkins

PRE-WESTERN SETTLEMENT

Relatively little is known about mule deer populations in the West prior to the arrival of early pioneers in the mid-1800s, but it is generally accepted that mule deer populations prior to written records fluctuated with environmental changes as they do today. Early explorers kept sporadic and incomplete records describing varying and sometimes conflicting assessments of deer populations across the West. Several prominent explorers in different areas of the West or similar areas at different times recorded mule deer in high numbers. Conversely, others described the necessity to kill other game or even their own horses to survive in areas now considered prime mule deer habitat. As western settlement progressed, mule deer populations declined dramatically because of unregulated subsistence and market hunting, and excessive livestock grazing, accelerated by unfavorable weather patterns. Mule deer were hard to find in most areas and sightings became rare by the close of the 1800s.

“THE GOOD OLD DAYS”

Human-induced changes in many areas made the landscape more conducive to supporting large mule deer populations in the early to mid-1900s. Mule deer thrive on disturbed habitats containing ample and diverse assemblages of plant species utilized as forage and browse. As a result of intense livestock grazing and wildfire suppression, the amount of shrubs within grasslands increased, thus increasing year-round browse available to mule deer. Widespread logging also opened canopies of densely forested areas and further promoted growth of beneficial shrubs and leafy forage. These land-use changes, coupled with aggressive predator control measures and increasingly effective harvest restrictions, allowed mule deer populations to rebound throughout the 1920s and 1930s and peak in different areas in the late 1940s through early 1960s. This period is thought of by many as “the good old days” for mule deer.

RECENT FLUCTUATIONS

The second range-wide decline in recorded history started in the late 1960s. By the mid-1970s it was obvious mule deer had declined throughout most areas of the West, but apparently for different reasons. During this period, logging operations slowed and continued wildfire suppression allowed forest communities to mature and expand, thus reducing the amount of forage and browse available to mule deer and resulting in slow population declines in many areas. Weather further impacted mule deer populations as harsh winters in the north reduced some populations, while droughts in the desert regions lowered fawn recruitment. Additional factors cited as having

contributed to localized population declines included: habitat loss to human development, deterioration of nutritious forage, competition with other ungulates, predation, disease, poaching, and increased hunting mortality.

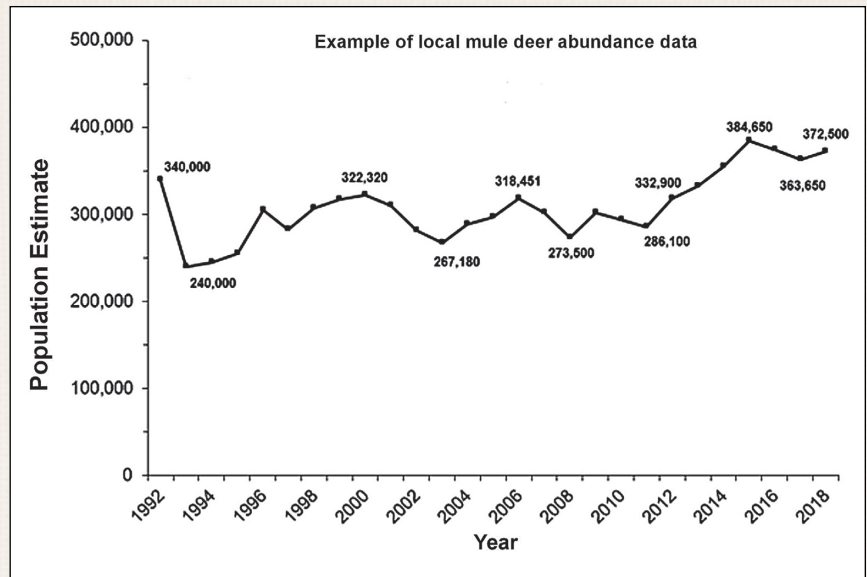
Many mule deer populations increased in the 1980s in response to favorable weather conditions, but a west-wide drought and a few harsh winters in the late 1980s started yet another decline throughout mule deer range. By the mid-1990s and continuing into the early 2000s, it was obvious that mule deer were experiencing another decline not attributable to any single factor.

CURRENT STATUS

Following lows in the late 1990s and early 2000s, most western mule deer populations rebounded, but many remain below most current management objectives. Deer populations undoubtedly fluctuated substantially before western settlement, just as they do today. The precipitous decline in the late 1960s facilitated several meetings where wildlife managers discussed impacts to mule deer populations. These meetings resulted in a period of intensive research focused on mule deer population drivers. The second range-wide decline in the 1990s resulted in the western wildlife agencies establishing the Mule Deer Working Group which is composed of representatives from all western states and provinces that have mule deer. The Mule Deer Working Group is charged with finding solutions to common mule deer management issues and optimizing cooperative research and management across the West.

SUMMARY

The causes of mule deer population fluctuations vary by ecoregion. Therefore, when mule deer are declining everywhere, it is usually for different reasons and often no single solution will improve mule deer populations everywhere. Currently, mule deer population goals and harvest rates cannot be set relative to the numbers some remember in the mid-1900s. That period was influenced by a combination of optimal habitat conditions on a less populated western landscape allowing for unnaturally high mule deer populations that would be difficult to replicate today. The current challenge of deer managers is to conserve and enhance habitat while maintaining populations within modern habitat capacities. Attempting to manage mule deer populations above the capacity of their habitats would facilitate continued long-term decline. Without restoring habitat fragmented by human development and replicating the optimal conditions of the mid-1900s, attaining mule deer abundance of “the good old days” is unlikely and unrealistic.



More information on Mule Deer can be found at www.muledeerworkinggroup.com

A product of the Mule Deer Working Group - Sponsored by the Western Association of Fish & Wildlife Agencies. - Approved January 2019

Produced with support from the Mule Deer Foundation • www.muledeer.org