Life Habits, Population Dynamics, and Ecology of Mule Deer in Grand Teton Park

Robert D. Dorn
Zoology and Physiology
University of Wyoming
Project Number 177

This study is being conducted within Grand Teton National Park and on adjacent land used by mule deer which use the Park seasonally. The initial field work was conducted from June through August 1970 and will be continued through two additional summers, two winters, and a fall and spring.

The following procedures were used:

(1) Vegetation analyzed quantitatively.
(2) Food habits determined by examining feeding sites.
(3) Distribution, vegetation type use, movements, population structure, natality, and mortality determined by field observations from fixed routes and from vantage points.
(4) Population regulating mechanisms and relationships to the environment and to other faunal species determined by field observations and vegetation analysis.

The vegetation survey of the Park for mapping and typing the vegetation was completed. At least 15 vegetation types will be differentiated.

A total of 119 mule deer was observed including 39 males, 50 females, 8 fawns, and 22 unidentified. Most of the unidentified were probably females. These figures indicate a very low fawn production.

Use of vegetation types in percent was as follows: lodgepole pine 24.1, sagebrush 13.4, grassland 12.1, lodgepole pine and aspen parks 12.1, aspen 10.1, spruce-fir 8.7, willow 8.1, spruce-fir park 6.0, sedge 2.0, serviceberry-buckbrush 2.0, and spruce-cottonwood 1.3. An edge situation was involved in 72.5 percent of the observations.

Observation-by-elevation results were 93 between 6,000 and 7,000 ft., 20 between 7,100 and 8,000 ft., and 6 between 8,100 and 9,000 ft. The range was 6,400 to 8,900 ft.

A total of 1062 instances of use was recorded on 7 feeding sites. Use on forbs was 85 percent, on browse 14 percent, and on grass 1 percent. Important species were Polygonum douglasii, Gilia aggregata, Geranium viscosissimum, and Lupinus sericeus.

Most of the above data are biased due to differential accessibilities and will be adjusted later.

Supported by the New York Zoological Society, Sigma Xi, National Park Service, and Wyoming Game and Fish Commission.