Western Deer: A Status

Report

Mule and Black-Tailed Deer of North America. OLOF C. WALLMO, Ed. Illustrated by Dean Rocky Barrick. University of Nebraska Press, Lincoln, 1981. xviii, 606 pp. \$29.95. A Wildlife Management Institute Book.

Mule and black-tailed deer, races of Odocoileus hemionus, occur in western North America and have been hunted by humans for centuries. With European settlement, unrestricted hunting reduced deer populations, but recovery occurred as state conservation agencies began to license and regulate hunters. Wildlife conservation was also assisted by the sporting arms and ammunition industry, which created a foundation now called the Wildlife Management Institute. To encourage the wildlife research needed for conservation, the Institute, in the mid-1930's, helped promote a federal tax on sporting arms and ammunition, to provide the states with necessary funds.

The results of two decades of study of deer were published in 1956 in The Deer of North America (W. P. Taylor, Ed.) under the sponsorship of the Wildlife Management Institute. That volume provided support for the view that deer populations, in the prevailing absence of much natural predation, would increase, overuse their plant food, and decline. Subsequently, most state deer management programs sought a maximum annual sustained yield of deer, through controlled recreational hunting. At the same time, research focused more closely on deer nutrition and the prospects for improvement of deer diet through vegetation management.

The present volume, then, draws on two decades of work on nutrition and population biology, ecology and habitat management, and conflicts between deer conservation and competing land uses. The 16 well-qualified authors have been active in deer research, either in western universities or in state or federal agen-

The results reflect the strengths and weaknesses of wildlife investigation and conservation in the United States. On the strong side, financial support has been sustained, and long-term studies of captive, tamed, individually marked deer have produced much well-organized information on deer distribution, morphology, physiology, nutrition, metabolism, disease, behavior, and population dynamics and on food habits and other ecological relations in the major types of habitat.

On the weak side, fewer than half the references cited are in refereed journals; the gray portion of the wildlife literature is substantial. A second weakness is that on the scale at which management is conducted there are no satisfactory methods for routinely monitoring major deer population variables, such as structure, density, physical condition, or reproduction. Consequently, deer management decisions must be made in the virtual absence of reliable biological information, and major deer population changes may occur without timely managerial response.

A widespread mule deer decline seems to have occurred from the early 1960's to the mid-1970's. The present volume documents this but cannot explain it. The decline has been followed by a recovery equally mysterious. The understanding of such large-scale deer population phenomena, perhaps, will constitute a strong theme in the next big deer book, two decades hence.

RICHARD D. TABER

College of Forest Resources, University of Washington, Seattle 98195

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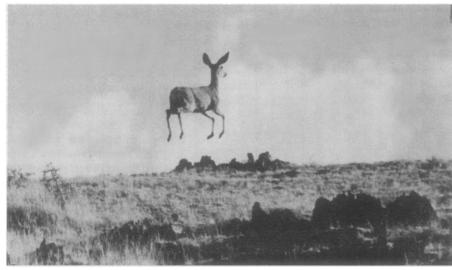
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A mule deer bounding. "In many habitats, bounding is a faster means of locomotion than galloping. In open areas it is an important behavior for eluding pursuing predators." [Photograph by Dave Daughtry, courtesy of the Arizona Game and Fish Department; from Mule and Black-Tailed Deer of North America]