

STUDIES ON THE PREVALENCE OF ARTERIAL
WORMS AND MENINGEAL WORMS IN MOOSE IN THE
JACKSON HOLE AREA OF WYOMING

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The objectives of this study are to determine if the Shiras moose (Alces alces shirasi) in northwestern Wyoming is parasitized by arterial worms (Elaeophora schneideri Wehr and Eikmans) or meningeal worms (Paralaphostromylus tenuis Dougherty). Both of these parasitic nematodes have been reported from moose elsewhere in North America, but no information is available on their occurrence in Wyoming.

Methods

Moose heads were obtained from hunter-killed animals by arrangement with the Dubois Check Station and the Jackson District Office of the Wyoming Game and Fish Commission. The heads were examined for arterial worms by opening the common carotid arteries and their terminal branches after dissecting them free from the neck and head. The brain, meninges and cranial cavity of some moose were examined for nematodes after the cranial cap was removed and the dura mater and associated blood vessels were peeled from the surface of the brain. In addition, the nasal passages and external ear canals of most animals were examined grossly for ectoparasites or lesions resulting from infestations with ticks, mites, or dipteran larvae.

Results

Nematode larvae have been recovered from the common carotid arteries of 5 of 50 moose examined to date. The specific identity of these parasites has not yet been determined. However, it is probable that they are developmental stages (probably L₃ or early L₄) of the arterial worm E. schneideri. The infected moose were all hunter-killed animals (3 bulls, 2 cows) taken between September 10-25 in Teton and Fremont Counties, Wyoming. An infestation of mites, apparently of the family Dermanyssidae, was found in the ears of a bull moose shot September 10, 1972, in Skull Creek Meadows, Teton National Forest. The identity of both the nematode larvae and mites will be included in a later report. If the arterial nematodes are determined to be E. schneideri, this will extend the known geographic range of arterial worm infections in moose into an area in northwestern Wyoming which supports an extensive moose population. No evidence has been found of meningeal worms in the few animals in which the brain has been examined.

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