Varying prevalence of *Taenia taeniaeformis* strobilocerci in *Microtus pennsylvanicus* of Montana

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VARYING PREVALENCE OF _TAENIA TAENIAEFORMIS_ STROBilocerci IN _MICROTUS PENNSYLVANICUS_ OF MONTANA

Richard H. McBee, Jr.

Abstract.—Of 42 _Microtus pennsylvanicus_ trapped 1 km from Bozeman, Montana, 14 (33.3 percent) were infected by strobilocerci of _Taenia taeniaeformis_, while only one (2.1 percent) of 47 was infected at a rural site 16 km from Bozeman. The higher incidence of the primary host, domestic cats, is believed to account for the higher rate of infection near Bozeman.


Survey data collected in southwestern Montana in 1971 indicated that the prevalence of infection of _M. pennsylvanicus_ with _T. taeniaeformis_ strobilocerci may vary widely according to the proximity of the voles to large numbers of primary hosts such as the domestic cat.

Voles were trapped from boggy areas on two different sites near the city of Bozeman, Gallatin County, Montana. The first area was located just outside the city limits and within easy range of numerous house cats. The second area was located approximately 16 km (10 mi) from Bozeman in farm land, with the nearest residence more than 1 km (.6 mi) away.

A total of 42 _M. pennsylvanicus_ was trapped from the first area, and their livers were examined for the strobilocerci of _T. taeniaeformis_. Infected voles totaled 14 (33.3 percent positive), with several animals having multiple cysts (an average 1.86 cysts per infected animal). A total of 47 voles was examined from the second area and, of these, one animal (2.1 percent) was found to be infected, with its liver harboring a single cyst.

The low incidence of infection of the rural _M. pennsylvanicus_ with _T. taeniaeformis_ is attributed to the lack of large numbers of primary hosts in the area.