BOT INFESTATIONS OF PINYON MICE IN NEW MEXICO[1]

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Although the pinyon mouse, *Peromyscus truei* (Shufeldt), a widespread rodent of the Upper Sonoran Zone in New Mexico, may be very numerous locally (Bailey, 1931), there are few records of specimens infested with bots (*Cuterebra* sp., Diptera: Cuterebridae). Manville (1961) recorded 2 inguinal bots in a female from Valencia County in May 1939, but he did not describe the habitat or climatic conditions. We have records of 6 additional specimens including one with a bot cyst scar.

First locality. Two 3rd-instar bots from 2 of several pinyon mice, 19 October 1969. Trap lines crossed the Santa Fe County - Los Alamos County line along the narrow ridge between New Mexico State Highway Loop 4 and Los Alamos Canyon, 2082 m.

Second locality. One 3rd- and 2 2nd-instar bots in back of a female, 15 April 1970; one 2nd-instar bot in back of a male, 16 April 1970. Mesa rim below old dump overlooking Frijoles Canyon, Bandelier National Monument, Sandoval County, 1956 m. Five other uninfested pinyon mice were collected on the same trap line, 14-16 April. No other species of *Peromyscus* was trapped. The mouse with 3 bots had an unusually heavy infestation of lice, especially around the opening of the cyst containing the 3rd-instar bot.

Third locality. One 3rd-instar bot in side of a male; one bot cyst scar on right side of another male, 27 October 1970. South-southwest slope of Boundary Peak, San Miguel Mountains, Sandoval County, 2445 m. Besides the infested and scarred pinyon mice, 8 males and a female were neither infested nor scarred. No other species of rodent was trapped.

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October 1970 was exceptionally cold in New Mexico (Houghton, 1970). A light snowfall of 26 October persisted on the ground at Boundary Peak while mice were collected there on 27 October. These winterlike conditions suggest to us that if a pinyon mouse bot should leave its host and fall into snow, the bot's chances of survival to an adult would be reduced.

All localities provided good habitat for pinyon mice being semi-arid and rocky with scattered pinyons. The first 2 localities were situated along south-southwest- to southwest-facing edges of mesas overlooking deep canyons; the third locality was on a steep south-southwest-facing slope of a prominent rocky peak about 9 m below the summit. Numerous pinyon mice trapped in canyons were not infested. This suggests that these mouse bot flies oviposited in exposed rocky places that rise perhaps 50-100 m above the neighboring land.

Near the northern border of New Mexico in Mesa Verde National Park, Colorado, Douglas (1969) found that the deer mouse, *P. maniculatus* (Wagner), was more heavily infested with bots than was *P. truei.* Besides the 2 bot-infested pinyon mice, we also trapped deer mice at the first locality and at many other localities as well. Nevertheless, we never detected bots in this species nor in any of the other 33 species of small mammals we collected in northern New Mexico.

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ABSTRACT. Three new locality records and one new seasonal record of bot (*Cuterebra* sp., Diptera: Cuterebridae) infestations in pinyon mice (*Peromyscus truei*) in northern New Mexico are presented with notes on certain ecological factors. -- Glenn E. Haas, 677 Deerpath Drive, Deerfield, Illinois 60015, and Richard P. Martin, P.O. Box 158, Cimarron New Mexico 87714.

Descriptors: Bots, *Cuterebra* sp.; Cuterebridae; Diptera; host-parasite relationships ecology; *Peromyscus truei* (pinyon mouse), *Cuterebra* sp. from; New Mexico, *Cuterebra* sp. in.