

Trichophyton mentagrophytes Ringworm Infection in a Northern Pocket Gopher, *Thomomys talpoides*

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We report the capture of a Northern Pocket Gopher (*Thomomys talpoides*) in Alberta with a *Trichophyton mentagrophytes* ringworm infection. Although ringworm infections are common in rodents, this is the first reported case in a Northern Pocket Gopher.

Key Words: Northern Pocket Gopher, *Thomomys talpoides*, ringworm, *Trichophyton mentagrophytes*, fungus, Alberta.

Dermatomycosis (ringworm infection) has been reported in many animals and has a worldwide distribution (Georg 1954). It is a fungus infection of the keratinized portion of the skin causing patchy areas of hair loss with thickened skin covered with yellow, dry crusts. The name "ringworm" is suggested by the

circular lesion that often develops from the outward growth of the fungi (United States Department of Agriculture 1976). The two species of fungi most commonly recovered from the hair coat of rodents are *Trichophyton mentagrophytes* and *Microsporum gypseum* (Clark et al. 1978). Dermatomycosis has been reported for the families Cricetidae, Microtidae, Chinchillidae, Erethizontidae, Capromyidae, Caviidae, and Muridae (McDiarmid 1962; Clark et al. 1978). However, to our knowledge, no cases have been reported for the Geomyidae.

In October 1994, a farmer from Gull Lake, approximately 120 km south of Edmonton, Alberta, captured a Northern Pocket Gopher, *Thomomys talpoides*, with dry cream-colored thickened skin void of hair. This covered most of the head and extended partially onto the neck. The lesion was about 3 cm in diameter. Microscopic examination revealed hyperkeratosis with focally large numbers of spores mixed in the proliferating skin cells as well as in the hair follicles and hair shafts. The spores were grown in a mycology culture on phyton yeast extract agar. They were identified by growth characteristics (i.e., rate of growth, color, texture, colony size, etc.) and microscopic morphology of the fruiting structures. The fungal spores were identified as *Trichophyton mentagrophytes*.

Northern Pocket Gophers spend most of their time underground (Proulx et al. 1995) where they are continuously exposed to mycotic organisms which occur as saprophytes in soil and organic debris (Migaki 1980). However, dermatomycosis is most often a latent infection and the incidence of clinical disease is low (Clark et al. 1978). While conditions which alter the immune system are usually necessary to predispose animals to such infections (Migaki 1980; Harkness and Wagner 1983), this pocket gopher was in good physical condition and no attempts were made to evaluate its immune competence. The lack of ringworm infection reports for the Northern Pocket Gopher, in spite of numerous investigations (Chase et al. 1982), suggests that

this type of infection may not occur frequently in this species.

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