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GEOMYLICHUS PEROGNATHI SP. N. (ACARI: LISTROPHORIDAE) FROM PEROGNATHUS SPP. IN THE UNITED STATES

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ABSTRACT: A new species of listrophorid mite, *Geomylichus perognathi*, is described from pocket mice, *Perognathus parvus* and *P. fasciatus*, from Oregon, USA. It is closest to *Geomylichus brevispinosus* and *G. inaequalis*, but is distinguished from those and all others in the genus by the following: (1) shape of the postscapular shield which is completely striated; (2) length of the postscapular shield; (3) striated membranes of Coxae II; (4) the different thickness of *sc e*; and (5) the length of *l 5* in the male.

Fain et al. (1978) revised the genus *Geomylichus* Fain 1970 (Listrophoridae). They described six new species and presented a key to the species of this New World genus.

A new species of *Geomylichus* is described herein from two species of pocket mice, *Perognathus parvus* and *P. fasciatus*, from Oregon, USA. Measurements are in micrometers unless otherwise indicated.

Geomylichus perognathi sp. n. (Fig. 1)

Description

Female: Holotype 591 long and 145 wide (in lateral view). Prescapular and postscapular shields 116 and 115 long, respectively (in midline); postscapular shield completely striated, with 25 striations in the midline (22-25 in paratypes). Hysteronotum without shield, bearing about 70 striations in the midline anterior to the anus. Posterior striations poorly defined. Setae *sc e* 23-25 long and 3 thick. Opisthogaster longitudinally striated. Striated pilocolous membranes on Coxae I and II without serrations; 90 and 48 long, respectively. Posterior extremity with one pair of long setae (130) and several pairs of much smaller setae. Opisthosoma 210 long. Posterior legs relatively short (4 terminal segments of Leg IV together 90 long).

Variation among seven female individuals is, as follows (*n*, range, \bar{x} , SD, SE): Body length 6, 528-591, 566.2, 23.0, 9.4; Maximum body width (laterally) 6, 120-146, 133.5, 11.5, 4.7; Prescapular plate length 7, 105-116, 113.1, 3.8, 1.5; Postscapular plate 7, 105-120, 109.4, 6.0, 2.3; Striate membrane of Coxa I 7, 85-90, 88.7, 2.2, 0.8; Striate membrane of Coxa II 5, 48-55, 51.0, 2.6, 1.2; Opisthosoma 6, 175-

220, 199.2, 15.9, 6.5; Leg IV (4 apical segments) 7, 85-92, 88.6, 2.6, 1.0.

Male: 525 long, and 122 wide in latero-oblique view. Prescapular and postscapular shields 105 and 102 long, respectively; postscapular shield completely striated, with 25-29 striations in the midline. Adanal suckers small. Setae *sc e* as in female. Hysteronotal shield with two lateral longitudinal sclerotized bands. Setae *d 5* foliate, relatively narrow (9-11 wide), *l 5* with inflated base 60 long.

Type specimens

Holotype: USNM (U.S. National Museum) Coll. No. 3853, male, collected 1976 by Chris Maser from *Perognathus parvus* (Heteromyidae) from Malheur Co., Oregon.

Allotype: CM (Chris Maser) Coll. No. 7126, female, collected 1976; other data as for holotype.

Paratypes: CM 7126, lot of five females, collected 1976; other data as for holotype; CM 7126, one male, collected 1976; other data as for holotype. JOW (J. O. Whitaker, Jr.) Coll. No. 9372, lot of one female, one male, and one nymph, collected 21 June 1975 by J. O. Whitaker, Jr., from *Perognathus fasciatus* from 10 mi [16 km] W Miles City, Custer Co., Montana.

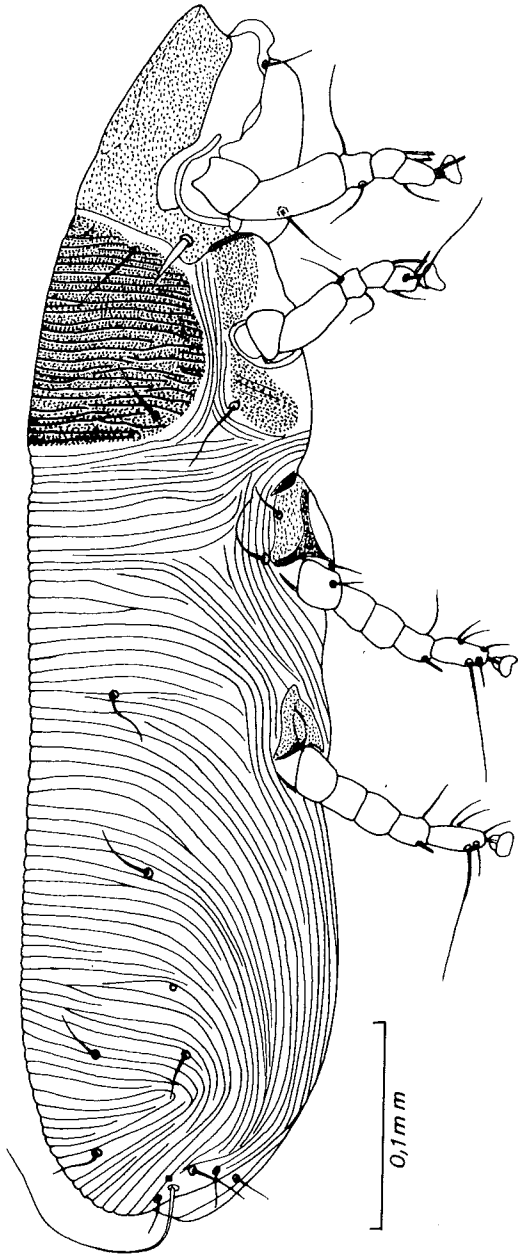
Remarks

In our key (Fain et al., 1978) to species of the genus *Geomylichus*, the female of *G. perognathi* runs in couplet no. 10 and the male in couplet no. 7, to *G. brevispinosus* and *G. inaequalis*, respectively. The female is distinguished from both species by the shape of the postscapular shield which is completely striated. It is distinguished further from *G. bispinosus* by the presence of numerous and regular striations on the hysteronotum, the much greater length of *sc e* and the striated membranes of Coxae II. From *G. inaequalis* it is distinguished by the shorter length of the striated membranes of Coxae II; setae *sc e* are thinner and the dorsal shields are much shorter. The male is distinguished from that of *G.*

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brevispinosus by the greater length of the *sc e* setae and the presence of numerous striations on the postscapular shield, and from that of *G. inaequalis* by *sc e* being half as thick and the inflated base of setae *l 5* is half the length.

Of the 12 species in the genus, six are found on kangaroo rats and pocket mice (Rodentia: Heteromyidae: *Dipodomys* and *Perognathus*), two are on pocket gophers (Geomyidae), four are on Cricetidae (*Sigmodon*, *Neacomys*, *Nectomys*, and *Teanopus*). The only species not on a rodent is from the cottontail rabbit, *Sylvilagus floridanus*, from Mexico.

ACKNOWLEDGMENT

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LITERATURE CITED

- FAIN, A., J. O. WHITAKER, JR., T. G. SCHWAN, AND F. S. LUKOSCHUS. 1978. Notes on the genus *Geomylichus* Fain, 1970 (Astigmata: Listrophoridae) and descriptions of six new species. *Int. J. Acarol.* 4: 101-114.

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FIGURE 1. Female of *Geomylichus perognathi* sp. n. (holotype).