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A NEW SPECIES OF MITE TAKEN FROM NEST OF ARMADILLO

(ACARINA LAELAPTIDAE, HYPOASPINAE)

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The species of mite here described was taken from the nest of the armadillo, *Dasypus novemcinctus*, during ecological studies on the armadillo made by Mr. W. K. Clark of the University of Texas. In the available literature, we have not been able to find a description to fit this mite and therefore conclude that it is new. It is described below as follows:

Hypoaspis dasypus, new species

Female.—Pale brown in color, oval in outline with faint shoulders, average size 600 microns long and 343 microns wide. The dorsal setae are long and overlap each other. This species has a pair of small round pores posterior to the second pair of setae on the ventral plate instead of slit-like pores present in *H. murinus*. The measurements given below are in microns and indicate the average and the two extremes of five measurements.

	<i>DL</i>	<i>DW</i>	<i>StL</i>	<i>StW</i>	<i>GVL</i>	<i>GVW</i>	<i>AL</i>	<i>AW</i>	<i>A-GV</i>	<i>F lg</i>	<i>H lg</i>	<i>TI</i>
Smallest	582	315	151	100	216	123	57	72	10	588	665	22
Largest	610	360	160	108	231	134	67	82	86	625	717	24
	—	—	—	—	—	—	—	—	—	—	—	—
Average	600	343	153	103	222	127	60	77	41	610	692	53

The above symbols are explained as follows: *DL*, length of the dorsal plate; *DW*, width of the dorsal plate; *StL*, length of the sternal plate; *StW*, width of the sternal plate at its narrowest point; *GVL*, length of the genitoventral plate, measured from the posterior margin of the sternal plate to the tip of the genito-ventral plate; *GVW*, width of the genitoventral plate at the widest point; *AL*, length of the anal plate from the anterior margin to the base of the odd setae; *AW*, width of the anal plate; *A-GV*, distance between the genitoventral and anal plates; *F lg*, length of leg I from base of coxa to tip of tarsus exclusive of the claw; *H lg*, length of leg IV similarly measured; *TI*, length of tarsus I, exclusive of the claw.

Venter.—Sternal plate reticulate, longer than wide, expanded on the posterior portion to shield-shape, the posterior margins extending beyond the middle of coxa III; with three pairs of setae and two pairs of pores.

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The first pair of pores are slit-like and located posterior to the first pair of setae, the second pair of pores are round and located posterior to the second pair of setae. Presternal area lightly sclerotized containing a pair of transversely bistriate presternal plates, fig. B. Endopodal plates distinct extending from the posterior lateral angle of the sternal plate to the anterior edge of coxa IV; endopodal setae set slightly off centerally. Genitoventral plate drop-shaped, broadened behind coxa IV, and bears one pair of setae; the reticulation of lines on the piece are characteristic and are essentially as shown in fig. B. Anal plate roundly triangular, the anal pore placed nearer the anterior margin; the three anal setae are of equal size, the paired ones placed opposite the posterior edge of the anal pore. A pair of large elongate metapodal plates and three pairs of smaller ones as shown in fig. B. Setae on the non-sclerotized portion of the venter vary in number from 7 to 10 pairs. Stigma situated opposite the posterior lateral edge of coxa III and the anterior lateral angle of coxa IV, the narrow peritreme extending forward to the middle of coxae I. Post stigmal sclerotization reaching backward to a point beyond the middle of coxa IV where it is truncate and bears a pore.

Dorsum.—Dorsal plate undivided, almost covering the entire dorsum. Approximately 39 pairs of long moderately heavy overlapping setae arranged in a regular pattern. Approximately 10 pairs of small pores scattered over the dorsum including a pair of slit-like pores near the anterior margin. A network of fine closely spaced lines cover the entire plate.

Gnathosome.—Corniculi pronounced and strongly pigmented. There are 3 pairs of hypostomal setae. The anterior pair and the central lateral pair are approximately equal. The centro-posterior pair are longer and equal in size to those on the basis capituli. Capitular groove with seven rows of capitular teeth of approximately 10 teeth in each row. Epistome apparently with a serrate margin. Chelicerae prominent, arms of chela equal. Digitus mobilis with two teeth below the incurved apex and with a semicircle of small setae at its base: digitus fixus with six or seven teeth and a slender, straight, non-inflated pilus dentilis. Tritosternum branching at the apex of the base. Cilia of each lacinia rather long and widely spaced. The laciniae are approximately twice the length of the base.

Legs.—Essentially characteristic for the genus. Coxa I-III each with two slender setae, coxa IV with one. No spurs or heavy spines present except the apical setae of tarsus II-IV especially those on tarsus II quite strong. Legs II and III are approximately equal, 521 microns in length compared to 610 microns for leg I and 692 microns for leg IV. All tarsi with claws and pulvillus.

Male.—Pale brownish in color oval in outline with very faint shoulders; average size approximately 390 microns long and 250 microns wide. The setae are moderate to weak in length and thickness.

Venter.—Holoventral plate broadest behind coxa IV. The genital pore is large and quite prominent. There are 3 pairs of small pores on the

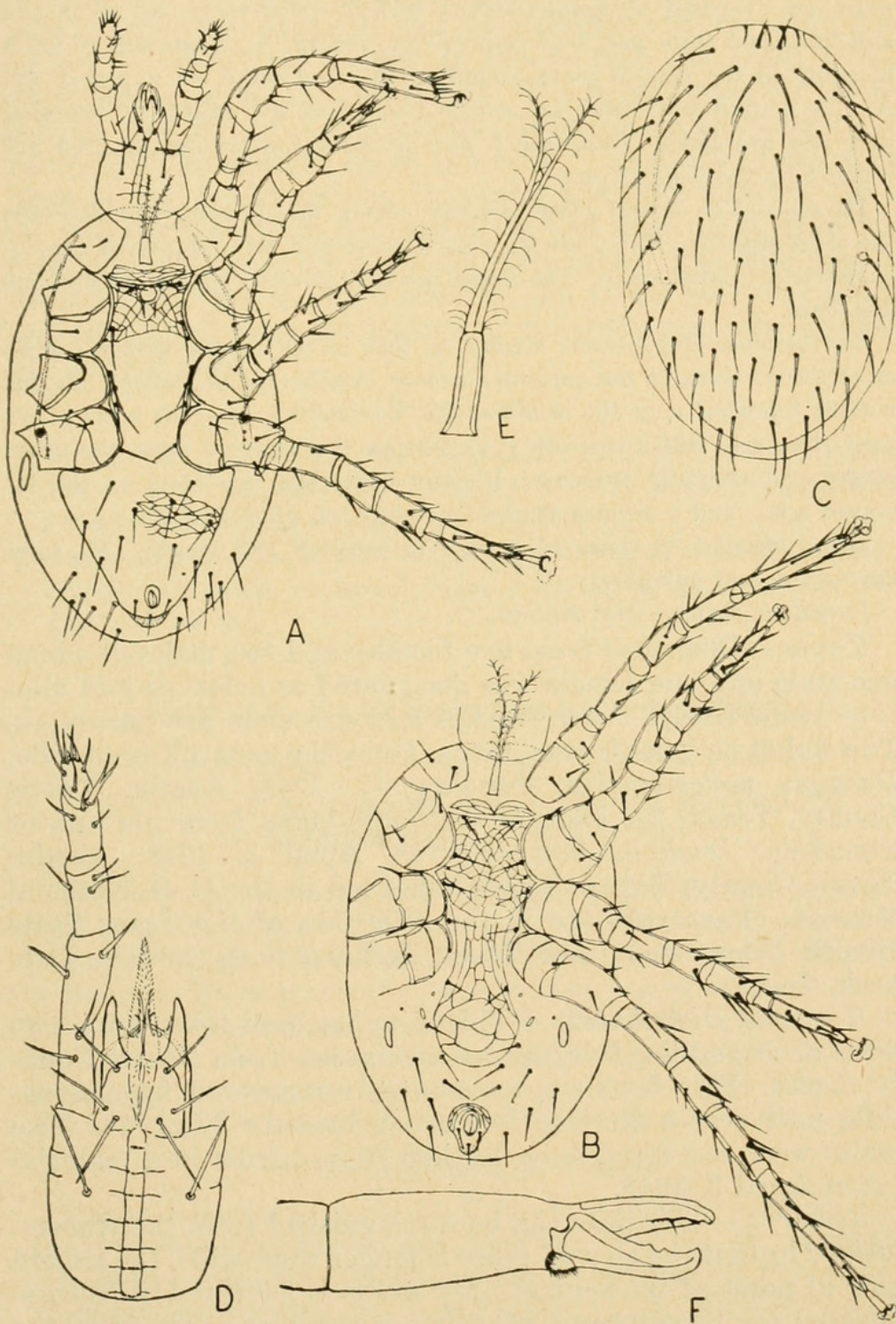


Fig. A, *Hypoaspis dasypus*, venter of male; fig. B, venter of female; fig. C, dorsal plate of female; fig. D, venter of female rostrum; fig. E, tritosternum; fig. F, chelicera.

holoventral plate. The first pair is slit-like and lies midway between the anterior ventral setae and the genital opening. The second and third pairs are oval and lie approximately midway between paired setae two and three and three and four respectively, see fig. A. There are 10 pairs of setae on the ventral plate excluding the anal setae, as shown in fig. A. The paired anal setae are situated opposite the middle of the anal pore and are short. There are 7 pair of setae located on the area not covered by the ventral plate.

Dorsum.—The dorsal plate entirely covers the dorsum, and overlaps the sides slightly. There are 38 paired setae and three unpaired centroposteriorly located setae. The dorsal plate is covered with a network of fine lines.

Gnathosome.—Hypostome similar to that in the female with six rows of capitular teeth in the capitular groove. Chelicerae prominent, digitus mobilis branched near the base and has a semicircle of small setae at its base. One arm with two teeth placed below the incurved apex, the other longer and abruptly truncate. Digitus fixus has two teeth at the incurved apex, and a slender straight non-inflated pilus dentalis.

Legs.—Similar to those of female in setation and length. All tarsi have claws and pulvillus.

Immature forms.—Not Known.

Types.—Described from five females and two males of which one male and one female was designated as holotype and allotype respectively. Four females and one male are paratypes. The holotype female was taken from the nest of armadillo, *Dasypus novemcinctus*, January 17, 1948, Austin, Travis County, Texas; the allotype male was taken from the nest of armadillo, *Dasypus novemcinctus*, April 3, 1948, Austin, Travis County, Texas. Types deposited in the U. S. National Museum. Paratypes are in the collection of the Texas State Health Department and Texas Technological College, Lubbock, Texas.

Host and Distribution.—This mite has been taken from two nests of armadillo, *Dasypus novemcinctus*, from Travis County, Texas. Five female specimens were recovered from armadillo nest over a Berlese funnel on January 17, 1948. Two males were recovered from Berlese funnel from nest material taken April 3, 1948.

Remarks.—This mite can be distinguished from the *Haemolaelaps* in that the sternal plate is longer than wide, the second pair of pores of the ventral plate are oval (slit-like in *Haemolaelaps*) the tritosternum branches at the apex of the base, the teeth in the capitular groove are 8-10 or more per row (3-5 in *Haemolaelaps*). The epistome is serrated and the pilus dentalis of the fixed chela is not inflated.

This mite is approximately 610 microns as compared to 581 for *Hypoaspis murinus*, and is only slightly wider. This

species differs further from *Hypoaspis murinus* in that the second pair of pores on the sternal plate are oval instead of slit-like. On the gnathosome the anterior setae and the centrolateral setae are equal in size and length and are approximately two-third the length of the central and basal pairs which are of equal size and length. The dorsal setae are much heavier and longer in this species, 55-76 microns long as compared to 35-45 microns on *H. murinus*. The width of the anal plate at the widest portion is greater than the distance from the anterior margin to the base of the odd setae, in *H. murinus* these measurements are approximately equal. The anal pore is placed nearer the anterior margin than to the posterior setae, and the paired setae are located opposite the posterior margin of the anal pore.

REFERENCES

- Vitzthum, H. Graf, 1941. Das System der Acari, in H. G. Bräuns, Klassen und Ordnungen des Tierreichs, Fünfter Band, IV Abteilung, 5 Buch. Acarina, Lieferung 5, pp. 751-800.
- Strandtmann, R. W. and G. C. Menzies, 1948. A new species of mite, *Hypoaspis murinus*, frequently taken from *Rattus* spp. Ann. Ent. Soc. Amer. 41:479-482.

A NEW FLEA FROM WESTERN NORTH AMERICA

(SIPHONAPTERA, HYSTRICHOPSYLLIDAE, NEOPSYLLINAE)

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The new species described here has hitherto been confused with *Delotelis telegoni* (Rothschild), which it closely resembles and with which it is compared below. I have much pleasure in naming this previously unrecognized flea after the eminent Canadian siphonapterist, George P. Holland, to whom I am indebted for the loan and gift of additional specimens of it. I also wish to express my sincere thanks to Miss Phyllis T. Johnson for checking specimens of *Delotelis* at her disposal.

Delotelis hollandi, new species

Types.—Holotype male and allotype female: Gaston, Oregon, ex *Microtus townsendi*, 14 Feb. 1940, C. A. Hubbard. Paratypes—Oregon: Chehalem Mt., Newberg, ex *Peromyscus maniculatus rubidus*, 20 April 1932, C. A. Hubbard, 1 ♀; California: 2 mi. east of Quincy, Plumas Co., ex *Neurotrichus gibbsi*, 28 Sept. 1950, E. W. Jameson Jr. 1 ♂, 1 ♀; British Columbia: Vancouver, ex *Microtus oregoni serpens*, 25 Sept. 1948 to 6 Dec. 1948, M. Merry, 2 ♂, 7 ♀. All these specimens are in the British Museum flea collection at Tring. Through



1952. "A new species of mite taken from nest of Armadillo. (Acarina, Laelaptidae, Hypoaspinae)." *Proceedings of the Entomological Society of Washington* 54, 265–269.

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