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## A NEW SPECIES OF *PASSALOZETES* FROM UTAH WITH NOTES ON THE GENUS. (ACARINA: ORIBATEI)<sup>1</sup>

Harold G. Higgins<sup>2</sup> and Tyler A. Woolley<sup>3</sup>

Among specimens of mites collected by the University of Utah Ecological Research Unit from wood rat (*Neotoma*) nests in Tooele County, Utah are examples of the genus *Passalozetes* Grandjean, 1932. These specimens represent a new species and a new geographic record of the genus. This is the first species of *Passalozetes* recorded from the United States; all others are European, according to Balogh (1961).

*Passalozetes linearis*, n. sp.

(Figs. 1, 2, 3, 4)

**DIAGNOSIS:** This species is readily separated from other known species of the genus by the fine-lined, dorsal and ventral integument and by the flattened, densely setose pseudostigmatic organs (Fig. 3).

**DESCRIPTION:** Yellowish in color; propodosoma about as long as wide, rostrum blunt, rounded; rostral hairs simple, inserted in small lateral projections, curved medially toward tip of rostrum, decurved; lamellae absent; lamellar hairs small, short, inserted near faint transverse line which transects dorsum of propodosoma nearly midway between anterior top and level of tectopodia I; interlamellar hairs not present in type specimen, insertions of hairs anterior-mediad of pseudostigmata, adjacent to coalesced medial section of dorsosejugal suture; propodosoma broken in type specimen anterior to interlamellar hairs; pseudostigmata cup-like, separated from each other by a little more than the length of pseudostigmatic organ; pseudostigmatic organ with a narrow pedicel and with an expanded, densely setose head as shown in figure 3.

Hysterosoma oval, anterior margin extended forward, coalesced medially with dorsum of propodosoma at level of interlamellar hairs; dorsosejugal suture interrupted by this medial projection; lenticulus clear, circular, surrounded by lines; dorsum with 8 pairs

1. Research sponsored by National Science Foundation.

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of simple hairs as shown in figure 1; integument with many fine lines (similar to the reticulations of a human fingerprint); two pairs of areae porosae and a glandular fissure as seen in figure 1.

Camerostome rectangular, general sclerotization as seen in figure 2; apodemata as seen in figure 2; ventral plate broken in type specimen; apodemata III darkly sclerotized, medially encircling genital aperture in a perigenital ring; genital aperture at level of apodemata IV, genital covers each with four pairs of genital setae, g:1 and g:2 inserted diagonally in anterior end of cover, g:3 posterior to g:1 near middle of cover, g:4 in medial-posterior corner of cover; aggenital setae inserted about twice their lengths postero-laterad of genital aperture; anal aperture nearly one-third larger than genital opening, in posterior end of ventral plate, aperture broken in type specimen; anal covers rectangular, separated in type specimen, each with two setae; adanal setae as in figure 2. ad:1 and ad:2 close together at lateral margin of anal aperture. ad:3 nearly halfway between anal and genital aperture, directly posterior to aggenital setae.

Tarsus of leg I as shown in figure 4; all tarsi heterobidactylous; heavier of the two claws toothed.

Length 366  $\mu$ , hysterosoma 246  $\mu$ ; width 186  $\mu$ .

Specimens of this species were collected as follows: 35 specimens from the Woodrat Nest Survey, South end Cedar Mountains, Tooele County, Utah, 8 July 1954, by J. Roscoe; 3 specimens from nest of *Neotoma lepida*, Cedar Mountains, Tooele County, Utah, 9 February 1953 by B. Thomas; 2 specimens from *Neotoma* nests, Cedar Mountains, Tooele County, Utah, 22 June 1953 by W. Thomas. Specimen No. 1326:055 is designated as type and will be deposited in the U.S. National Museum.

#### Key to the Known Species of *Passalozetes*

1. Legs with three (3) claws ..... 2  
    Legs with two (2) claws ..... 4
2. Area between pseudostigmata smooth, without lines or sculpturing (Fig. 5) ..... *P. hispanicus* Mihelcic.  
    Area between pseudostigmata with transverse lines or sculpturing ..... 3
3. Tip of rostrum with large irregular markings; pseudostigmatic organ plumose (Fig. 6. 6a) .... *P. inlenticulatus* Mihelcic.  
    Tip of rostrum with fine hair-like reticulations; pseudostigmatic organ serrate (Figs. 11. 11a)  
    ..... *P. africanus* Grandjean
4. Sculpturing of hysterosoma consisting of both oblong or line-like markings and granules ..... 5  
    Sculpturing of hysterosoma not consisting of both oblong or line-like markings and granules ..... 7

5. Sculpturing of both dorsal and ventral surfaces of hysterosoma similar ..... *P. reticulatus* Mihelcic  
Sculpturing of dorsal surface different from markings on ventral surface ..... 6
6. With heavy transverse ridges between and slightly anterior to pseudostigmata (Figs. 10, 10a, 10b) .... *P. vicinus* Mihelcic  
Without heavy transverse ridges between the pseudostigmata (Figs. 16, 16a, 16b, 16c, 16d, 16e) ..... *P. variatepictus* Mihelcic
7. Dorsal pattern consisting of roughened stars interspersed with small granules (Fig. 12) ..... *P. bidactylus* (Coggi)  
Dorsal pattern not consisting of roughened stars ..... 8
8. Dorsal pattern of hysterosoma consisting of line-like markings (Figs. 1, 13) ..... 9  
Dorsal pattern of hysterosoma not consisting of line-like markings ..... 10
9. Dorsal hysterosomal pattern of lines separated by rows of granules; pseudostigmatic organ not setose. (Fig. 13) ..... *P. striatus* Mihelcic.  
Dorsal hysterosomal pattern of lines not separated by rows of granules; pseudostigmatic organ with setose head. (Figs. 1, 3) ..... *P. linearis* n. sp.
10. Middle part of dorsal hysterosomal pattern consisting of single granules or strings of broken bead-like granules ..... 11  
Middle part of dorsal hysterosomal pattern with a heavy bone-shaped design. (Figs. 14, 14a) .... *P. intermedius* Mihelcic
11. Middle part of dorsal pattern consisting of strings of broken bead-like granules. (Figs. 9, 9a) ..... *P. permixus* Mihelcic  
Middle part of dorsal pattern consisting of mainly single granules ..... 12
12. Propodosoma with a heavy lateral keel. (Fig. 8) ..... *P. granulatus* Mihelcic  
Propodosoma without a heavy lateral keel ..... 13
13. Exobothridial setae posterior to pseudostigmata; ventral pattern of irregular rectangular markings. (Fig. 15) ..... *P. perforatus* (Berlese).  
Exobothridial setae antero-lateral to pseudostigmata; ventral pattern of fine broken lines (Fig. 7) ..... *P. propinquus* Mihelcic

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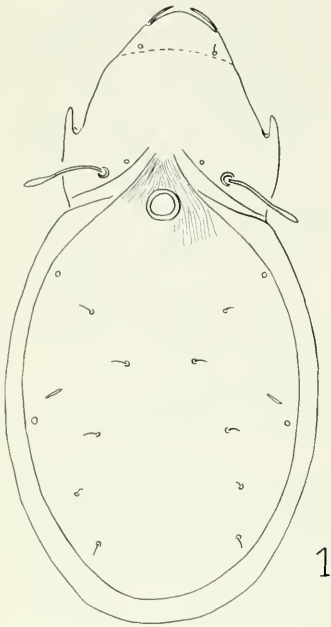
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## EXPLANATION OF FIGURES

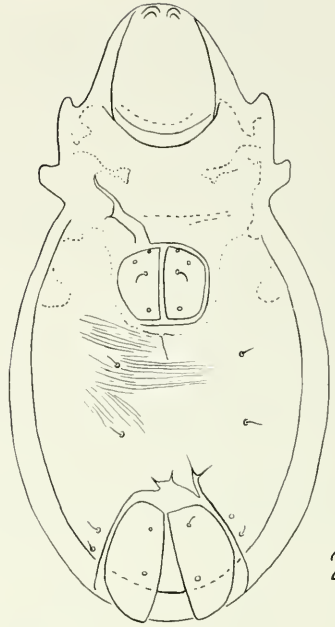
- Fig. 1. *Passalozetes linearis*, n. sp. from dorsal aspect, legs omitted.
- Fig. 2. *Passalozetes linearis*, n. sp. from ventral aspect, legs omitted.
- Fig. 3. Pseudostigmatic organ of *P. linearis* n. sp.
- Fig. 4. Leg 1 of *P. linearis*, n. sp.
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- Fig. 16e. Enlargement of sculpturing around dorsal fissure of *P. variatepictus* Mihelcic, 1956.





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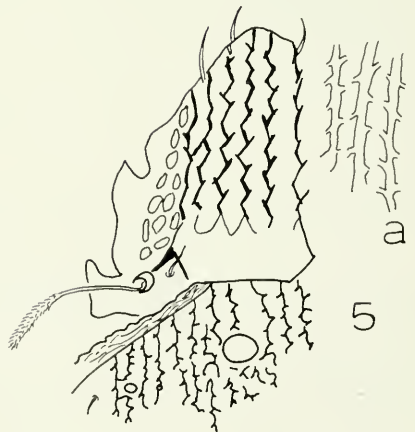


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