

## A NEW NEOICHORONYSSUS FROM THE PACK RAT, NEOTOMA MICROPUS

(ACARINA, LAELAPTIDAE)

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The description of a new *Neoichoronyssus* which follows adds another species to the impressive number of ectoparasites associated with the various species of *Neotoma*, the pack or wood rats.

### *Neoichoronyssus* (*Hirstionyssus*) *neotomae*, new species

*Female*: Body oval in outline, pale brown in color. The measurements indicate the average of the holotype and 7 paratypes. Total length, in microns, exclusive of gnathosoma, 446; width of body at widest point, 280; length of dorsal plate, 407; width of dorsal plate, 206; length of genitoventral plate, measured from posterior margin of sternal plate to the tip of the genitoventral plate, 210; distance from posterior margin of genitoventral plate to anterior margin of anal plate, 24.

Dorsal plate entire, extending almost the length of the dorsum, narrowed posteriorly to a bluntly rounded tip, provided with about 26 pairs of setae. A pair of slit-like pores below and angled toward the anterior pair of setae on the dorsal plate. About 14 pairs of slender setae on the unsclerotized portion of the dorsum. Peritreme extending from the anterior margin of coxa IV almost to the middle of coxa I.

Sternal plate about 3 times as wide as long, concave caudally, with 3 pairs of setae, the first and second pair sub-equal in size and larger than the third pair. Genitoventral plate widest slightly below insertion of genitoventral pair of setae, with posterior margin bluntly rounded. Genitoventral plate separated from the anal plate by a distance less than the length of the anus. Anal plate ovoid; anal setae of equal size. Unsclerotized portion of venter with about 20 pairs of setae.

Coxa I with a ventral and a sub-marginal seta. Coxa II with an anterior marginal and a posterior submarginal seta, an acute cephalo-dorsal spur and a short, acute, ventral spur. Coxa III with setae as on coxa II and two short acute spurs, the larger ventral, the smaller near the posterior margin. Coxa IV with a submarginal seta and a small, acute spur near the posterior margin. Tarsus II without modified setae.

Chela shear-like, arms equal. Four pairs of typical hypostomal setae; hypostomal teeth in two alternate rows, about 12 teeth in all. Epistome rounded distally with no discernible teeth on apex.

*Male*: The measurements indicate the average of the allotype and 2 paratypes. Total length, exclusive of the gnathosoma, 336; width of body at widest point, 202; length of dorsal plate, 329; width of dorsal plate, 178; length of holovertral plate, 256. Dorsal plate entire, almost completely covering the dorsum and with 11 pairs of setae. Peritreme as in female. Holovertral plate constricted behind coxa IV and strongly



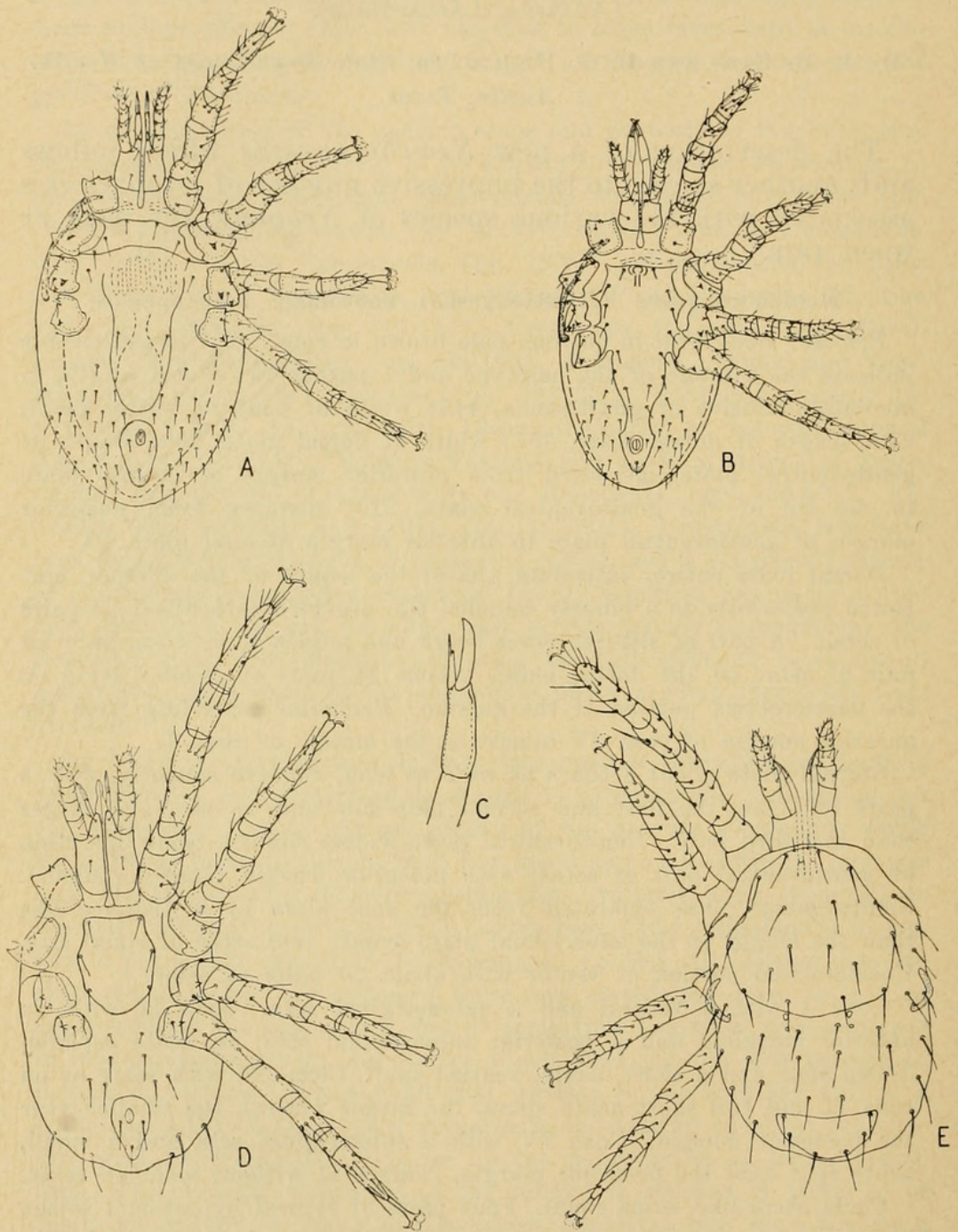
PLATE 38. *NEOICHORONYSSUS* (*HIRSTIONYSSUS*) *NEOTOMAE*

Fig. A, female; B, male; C, male chelicera; D, ventral view of protonymph; E, dorsal view of protonymph.



constricted above the anus; with 8 pairs of setae in addition to the anal setae. About 17 pairs of short, slender setae on the unsclerotized portion.

Coxa I with a ventral and a submarginal seta. Coxa II with an anterior marginal and a posterior submarginal seta plus a long, acute, cephalo dorsal spur and a short, acute ventral spur. Coxa III with setae as on coxa II, posterior submarginal seta flanked by two acute spurs. Coxa IV with a submarginal seta and a small, acute spur near the posterior margin. Tarsus II without modified setae.

Gnathosoma similar to female except for modified chela, fixed arm shorter and more pointed than the movable arm. Epistome rounded distally with minute teeth on apex.

*Protonymph*: The measurements of the immature form are an average of 4 specimens. Total length, exclusive of gnathosoma, 373; width of body at widest point, 234. There appears to be a wide variation in size among the protonymphs. Dorsal plates consist of an anterior shield, a posterior shield and 2 pairs of small plates immediately behind the anterior shield. The anterior shield bears 10 pairs of setae. Posterior shield with 3 pairs of setae, of which the caudal pair is the longest. Unsclerotized portion of dorsum with 14 pairs of setae. Peritreme short, extending from the anterior margin of coxa IV to slightly beyond the middle of coxa III. Sternal plate truncate anteriorly with a slight central concavity, posterior end bluntly rounded. The 3 pairs of sternal setae are subequal in size. Anal plate elongate-oval, narrowed to a rounded point posteriorly. Paired anal setae situated near the caudal border of the anus, slightly shorter than the unpaired setae. Unsclerotized portion of venter with 7 pairs of setae.

Coxa I with a ventral and a submarginal seta. Coxa II and III with an anterior marginal and a posterior submarginal seta, submarginal seta situated on small lobe-like processes. Coxa IV with a single ventral seta. Legs without modified setae.

Gnathosoma similar to that of female. Arms of chela equal and without processes. Hypostomal teeth arranged in a single row of about 10 teeth.

*Types*: Holotype female and 7 paratypes (females) from nesting material of the Baird wood rat, *Neotoma micropus* Baird; 9 October, 1950; Zavala County, Texas. Allotype male, 2 paratypes (males) and 3 protonymphs with the same data as the female type. Holotype female and allotype male are deposited in U. S. National Museum. Additional specimens seen are 1 female from *Neotoma micropus* Baird; 19 May, 1949; Ector County, Texas; coll. V. I. Miles, and 1 protonymph from *Perognathus hispidus* Baird; 25 April, 1950; Zavala County, Texas; coll. C. W. Johnson and O. L. Walker.

*Remarks*: In Jameson's key to the species of North American *Neoichoronyssus* (1950), *N. neotomae* will run to *N. obsoletus* Jameson. *N. neotomae* differs from this species in the



possession of a ventral spine on coxa IV and in the shape of the ventral and anal plates. Dr. Strandtmann has been very helpful with constructive criticism and advice. He has given the opinion that *N. neotomae* resembles *N. otomys* (Radford) but differs from it in the absence of a pair of modified setae near the apex of tarsus II.

#### LITERATURE CITED

- Jameson, E. W., Jr., 1950. Notes on Mites of the Genus *Neoichoronyssus*, with the Description of a New Subgenus and Three New Species of the Subgenus *Hirstionyssus*. Proc. Ent. Soc. Wash., 52(4):161-172.

### ENTOMOLOGICAL SOCIETY OF WASHINGTON SPECIAL MEETING, MARCH 10, 1951

A joint meeting of the Entomological Society of Washington and the Biological Society of Washington was called to order by President Lincoln of the Biological Society at 8 P.M., Saturday, March 10, 1951 in Room 43 of the U. S. National Museum.

Major W. A. Anderson, presented by J. H. Fales, showed moving pictures on the life of the Monarch butterfly which stimulated much interest. Major Anderson introduced Mrs. Anderson, who had worked with him in producing the picture.

The principal speakers of the evening were introduced by President Stone of the Entomological Society. The first was Dr. Don J. Pletsch of the International Health Division of the U. S. Public Health Service, who showed moving pictures he had made on a survey of the biological research stations of Japan. Dr. Pletsch's picture showed the various stations suffering from disrepair and war damage, and he told of the diffusion of effort and scholastic inbreeding in the schools which further hindered work.

Major Robert Traub of the Army Medical Center followed, illustrating with kodachromes his talk on "New Data from Malaya on the Epidemiology of Scrub Typhus." The effects of antibiotics in treating the disease and the habits and incidence of the principal vectors were discussed. Because of the late hour there was not time for discussion of either paper, and the meeting was adjourned at 10:30 P.M.

KELLIE O'NEILL, *Recording Secretary.*

### ENTOMOLOGICAL SOCIETY OF WASHINGTON 608TH REGULAR MEETING, APRIL 5, 1951

The 608th regular meeting of the Entomological Society of Washington was held in Room 43 of the U. S. National Museum, Thursday, April 5, 1951. President Stone called the meeting to order at 8:00 P. M. Sixty-three members and 25 visitors were present. The minutes of the previous meeting were read and approved.



1951. "A new Neoichoronyssus from the pack rat, *Neotoma micropus* (Acarina, Laelaptidae)." *Proceedings of the Entomological Society of Washington* 53, 295–298.

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