PSYCHE

NEW ORIBATIDAE.

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THE present paper describes seven new species of Oribatidae, including a species of *Pelops*, the first of its genus to be described from this country. Type specimens have been deposited in the Illinois State Laboratory of Natural History.

Pelops americanus n. sp.

Figs. 2, 3, 4.

Dark brown; integument of medium thickness and covered with small pits.

The cephalothorax is about one-third as long as the abdomen. A long process, one-half as broad as long, extends from the anterior margin of the abdomen to beyond the tip of the rostrum. A pair of large, spatulate, serrate bristles is situated on the posterior dorsal part of the cephalothorax; they project almost to the tip of the rostrum and diverge from the median plane. Lamellae situated laterally; about one-half as long as the cephalothorax, curving toward the median plane and ending in a sharp point, from which extends a simple, curved, bristle almost as long as the lamella itself.

Abdomen about as broad as long. Two pairs of short spatulate bristles are situated on the posterior margin near the median plane. The inner and upper two incline slightly toward the median plane. The outer and lower two incline markedly away from the median plane. There are two pairs of similar dorsal bristles and a lateral pair of bristles situated about half way from the anterior to the posterior margin of the abdomen. Pteromorphae large, about four-fifths as long as the abdomen and extending forward to about the middle of the cephalothorax. Genital covers larger than the anal covers and situated about their length in front of the latter. Anal covers situated one and one-half times their length from the posterior margin of the abdomen and two-thirds their length from the posterior margin of the ventral plate.

Legs rather small; unguis tridactyle; tibia and tarsus of leg IV subequal.

Length, 0.60 mm.; breadth, 0.45 mm.

In moss. Collected by myself at Batavia, Ill. One specimen.

Oribata clavilanceolata n. sp.

Figs. 9, 10, 11.

Light brown; integument thin and brittle, slightly pitted around the margin of the abdomen.

Cephalothorax about one-half as long as the abdomen; lamellae long and narrow, three-fourths as long as the cephalothorax; no translamellae; a pair of small lateral lamellae extend two-thirds the distance to the tip of the rostrum, each lamella ending in a long curved bristle; pseudostigmatic organ with a long, recurved peduncle and an enlarged head, which tapers to a fine point; interlamellar hairs erect; palpi prominent.

Abdomen about two-thirds as broad as long; pteromorphae truncate, not extending beyond the anterior margin of the abdomen, but extending backward to about the middle of the abdomen. Abdomen hairless; anal covers large and situated about one-half their length from the posterior margin of the abdomen; genital covers about one-half as long as the anal covers, and situated about twice their length in front of the same.

Anterior pair of legs almost as long as the abdomen, the femur being the largest segment; tibia of leg I slightly longer than the tarsus. The legs bear a few, large, curved, dentate bristles. Unguis tridactyle.

Length, 0.70 mm.; breadth, 0.35 mm.

Under stones. Collected by myself at Batavia, Illinois. Many specimens.

Oribata clavipectinata n. sp.

Fig. 14.

Brown; integument of medium thickness, surface somewhat rough.

Cephalothorax about one-half as long as the abdomen; lamellae without cusps and two-thirds as long as the cephalothorax and of about the same width throughout their length; no translamellae; lamellar hairs slightly pectinate and as long as the lamellae themselves; interlamellar hairs two-thirds as long as the lamellar hairs and directed away from the median plane; lateral lamellae small, narrow, each bearing a long, curved bristle, as long as the lamellae themselves. The pseudostigmatic organ is about as long as the lamellae, is recurved and has a moderately long peduncle and a long, clavate, pectinate head.

The abdomen is about three-fifths as broad as long; the pteromorphae are attached to the anterior half of the lateral line; they are truncate in front and extend a little beyond the anterior margin of abdomen. The abdomen is hairless.

The legs are of moderate size, the femur being the largest segment. Unguis tridactyle.

Length, 0.60 mm.; breadth, 0.42 mm.

In moss. Collected by myself at River Forest, Illinois. A few specimens.

Oribata curva n. sp.

Figs. 5, 6.

Dark brown; integument thick and resistant.

Lamellae small and situated laterally; pseudostigmatic organ very long, almost twice as long as the tibia of leg I; recurved, with a long, narrow peduncle and a very large, subglobose head.

Cephalothorax with a pair of lateral hairs about half as long as the cephalothorax itself, curved, and extending slightly beyond the tip of the rostrum.

Abdomen subglobose with a few small hairs; pteromorphae very large, almost as long as the abdomen, extending nearly to the tip of the rostrum and rounded in front. Anal covers slightly larger than the genital covers and situated about their length behind the latter. Ovipositor large, its proximal segment about as long as leg I. The ovipositor when extended is as long as the mite; the three subequal distal forks are each about as long as the segment stalk from which they extend.

Legs rather small; tarsus of leg I longer than the tibia; tibia with an apical bristle about as long as the segment itself; femur of leg I subglobose. Unguis tridactyle.

Length, 0.40 mm.; breadth, 0.30 mm.

Under old logs. Collected by myself at Eola Junction, Illinois. A few specimens.

Oribata multipilosa n. sp.

Fig. 1.

Light brown; integument of moderate thickness; surface slightly rough.

Cephalothorax rather long; lamellae prominent, situated laterally, about one-half as long as the cephalothorax and ending each in a short cusp; translamella a mere line. A pair of lateral lamellae is present also, these being very narrow and bearing

each at its tip a long, curved, serrate bristle. Pseudostigmatic organs fusiform and almost as long as the lamellae. Lamellar hairs straight, pectinate and a little longer than the lamellae; inter-lamellar hairs similar to the lamellar hairs but longer.

Abdomen slightly longer than broad, bearing about two dozen large, conspicuous, dentate, bristles. Pteromorphae about as long as the cephalothorax but lying close to the body and projecting about one-half their length in front of the anterior margin of the abdomen. Genital covers smaller than the anal covers and situated about one and one-half times their length in front of the latter.

Legs small; unguis tridactyle.

Length, 0.75 mm.; breadth, 0.50 mm.

Under logs. Collected by myself at Eola Junction, Illinois. Several specimens.

Oribata serratoseta n. sp.

Figs. 12, 13.

Dark brown. Cephalothorax almost as broad as long; palpi prominent; lamellae narrow and about two-thirds as long as the cephalothorax; lamellar hairs straight, pectinate, and extending to the tip of the rostrum; interlamellar hairs about as long as the lamellar hairs; rostral hairs similar to the last, but curved. The pseudostigmatic organ has a small, recurved peduncle and a large, thick, subglobose head.

Abdomen two-thirds as broad as long, with many large, curved, serrate bristles. Pteromorphae short, triangular and two-thirds as broad as long, the anterior free margin being straight. Anal covers larger than the genital covers and situated one and one-half times their length behind the latter.

Legs large; tarsus and tibia of leg I subequal; tibia bearing a large bristle as long as the segment itself. Unguis tridactyle.

Length, 0.40 mm.; breadth, 0.30 mm.

In moss. Collected by myself at Eola Junction, Illinois. Three specimens.

Phthiracarus magnus n. sp.

Figs. 7, 8.

Dark brown; surface of integument smooth.

Cephalothorax about one-half as long as the abdomen. A pair of short curved bristles occurs close to the posterior margin of the cephalothorax and a similar pair

of bristles is situated near the anterior end of the cephalothorax; pseudostigmatic organ narrow, lanceolate, and about two-thirds as long as tarsus I.

The abdomen is rounded posteriorly and bears dorsally about six bristles, and ventrally two pairs of prominent bristles lateral to the anterior and posterior margins of the anus respectively. Genital covers prominent, each bearing about six small hairs.

Legs of medium length; tarsus about twice as long as the adjacent tibia; tarsus and tibia of first two pairs of legs each bearing a long bristle, almost as long as the cephalothorax. Unguis tridactyle.

Length, 1.30 mm.; height, 0.80 mm.

Under old logs. Collected by myself at Pine, Ind. Seven specimens.

EXPLANATION OF PLATE.

- Fig. 1. *Oribata multipilosa*, $\times 100$.
Fig. 2. *Pelops americanus*, seta from the posterior dorsal part of cephalothorax, $\times 200$.
Fig. 3. *Pelops americanus*, posterior margin of abdomen, $\times 110$.
Fig. 4. *Pelops americanus*, lateral lamella, $\times 340$.
Fig. 5. *Oribata curva*, tibia and tarsus of leg I, $\times 200$.
Fig. 6. *Oribata curva*, pseudostigmatic organ, $\times 340$.
Fig. 7. *Phthiracarus magnus*, ventral margin of abdomen, $\times 45$.
Fig. 8. *Phthiracarus magnus*, pseudostigmatic organ, $\times 140$.
Fig. 9. *Oribata clavilanceolata*, pteromorpha, $\times 200$.
Fig. 10. *Oribata clavilanceolata*, leg II, $\times 108$.
Fig. 11. *Oribata clavilanceolata*, pseudostigmatic organ, $\times 216$.
Fig. 12. *Oribata serratoseta*, pteromorpha, $\times 260$.
Fig. 13. *Oribata serratoseta*, pseudostigmatic organ, $\times 340$.
Fig. 14. *Oribata clavipectinata*, $\times 134$.

I would be glad to get material in the Noctuid genus *Homoptera* and its allies from all parts of the country for study in the preparation of a revision of this series. I will name and return specimens promptly, for the privilege of retaining such as may be needed in completing the work.

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