TWO NEW SPECIES OF ORIBATID MITES OF THE GENUS PELORIBATES BERLESE 1908 FROM FLORIDA

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ABSTRACT

Two species of Peloribates are described from Florida, P. tillandsioides from Spanish moss and P. floridensis "from leaves and pine needles." P. tillandsioides is characterized by blunt notogastral setae, short sensilli with broad heads and pocked surfaces of the integument of the rostrum and the dorsal anterior surface of the pteromorphs; P. floridensis by the subequal filiform notogastral setae of 0.092mm length and a slightly pocked integument of the dorsum of the rostrum and the pteromorphs.

The genus Peloribates was established by Berlese in 1908. He had described the type species as Oribates peloptoides from Brazil in 1888. Willman (1935) in describing Peloribates europaeus gave several of the generic characters for Peloribates. Roughly translated these are: short pteromorphs truncate in front; lamellae far to the side and extending half the length of the propodosoma; tectopodium 1 very narrow; sensillus far to the side and with a narrow head; the hysterosoma strongly arched and with 14 pairs of notogastral setae. Further characters are: 5 pairs of genital setae; 1 to 3 pairs of aggenital setae; 2 pairs of anus; 3 pairs of adanal; and 4 pairs of sacculi on the notogaster. The tarsi are tridactylos and the mandibles normal.

Peloribates tillandsioides n. sp. (Fig. 1-3)

Size.—Mean for 11 specimens—L. 0.409mm. Range 0.37-0.44mm.

W. 0.286mm. Range 0.24-0.32mm.

Shape.—Bluntly pointed anteriorly with notogaster rounded posteriorly.

Color.—Yellowish-brown.

Integument.—The integument over the rostrum and the dorsal anterior surface of the pteromorphs is distinctly pocked.

Prodorsum.—The prodorsum is broadly cone-shaped. The interlamellar, lamellar and rostral setae are long, pointed and barbed. The interlamellar setae are held nearly upright. Each seta is longer than the space between the bases of the setae. Length of interlamellar setae is 0.116mm; the distance between the bases of the interlamellars is 0.08mm. The lamellar setae are 0.10mm in length; the rostral setae 0.06mm. The lamellars extend dorsal to and anteriorly beyond the rostral setae, but do not overlap one another. The rostral setae bend in a curve in front of the rostrum and extend for more than a third of their length beyond the tip of the rostrum.

The head of the sensillus is slightly shorter than the stalk, 0.024mm to 0.020mm; the width is 0.012mm. In some specimens the head of the sensillus
appears as long as broad. The head bears 12 rows of minute spines.

Notogaster.—The sutura dorsosejugalis is complete. There are 14 pairs of blunt or spatulate, barbed setae of approximately the same length (0.08 mm) with 5 pairs anterior to the im pori, 1 pair near the level of the pori and 8 pairs posterior to it. There are 4 pairs of sacculi: $S_5$ anterior and lateral to $1m$, $S_l$ anterior to $1p$, $S_j$ near the base of $h_3$, and $S_j$ between the bases of $h$ and $h_3$. 
Fig. 2-3. *Peloribates tillandsius* n. sp.: 2. Anal region; 3. Epimeral and genital regions.

Ventral region.—The genital field appears almost circular. The genital plates are 0.050mm 0.056mm wide at the anterior end and 0.04mm at the posterior end. The plates are 0.05mm in length.

The arrangement of the setae in the epimeral region is indicated in Fig. 3. There are 2 pairs of anal setae, the posterior pair close to the posterior margin of each anal plate. Ad 3 is minute and anteriolateral to the anal plate.

Legs.—The legs were not studied in detail. All tarsi are tridactylous with claws subequal, the middle claw being slightly heavier.

Material studied.—12 adult specimens from Spanish moss, *Tillandsia usneoides* shipped with oranges from Mt. Dora, Florida to C. A. Smith, Ithaca, New York. The moss was placed in funnels on 11 December 1940. (Nevin Coll. No. 160). Balsam mounts were made in 1941.

Holotype, and paratypes.—Slides 1, 3, 4, 6, and 7 to be deposited in the Florida State Collection of arthropods, Gainesville, Florida. Paratypes.—Slides 2, 5, 8, 9, and 10 to be deposited in the New York State Museum, Albany, New York.

Remarks.—The head of the sensillus of *P. tillandsius* resembles that of *P. fragilis* Hammer (1967) from New Zealand. The stalk of the sensillus is shorter in *P. tillandsius*; *P. fragilis* is larger (0.51mm). I have found no description of species of *Peloribates* in which the notogastral setae are not pointed, but believe that this feature alone is insufficient for the erection of a new genus.

*Peloribates floridensis* n. sp. (Fig. 4)

Color.—Yellowish-brown

Size.—L. 0.44mm. W. 0.29mm.

Shape.—Rounded posteriorly, bluntly pointed anteriorly.

Integument.—Indistinctly pocked over the rostrum and the anterio-dorsal surface of the pteromorphs.

Prodorsum.—The rostrum is broadly triangular, bluntly pointed in front. Interlamellar, lamellar and rostral setae are pointed and are barbed to their bases, the barbs being more distinct at the apices of the setae. The in-
terlamellars and the lamellars are approximately the same length, measured as 0.11mm and 0.12mm respectively although the lamellars appear longer. The interlamellars are erect projecting anteriorly and curving toward the midline at their tips. Their origin is about the width of the base of the seta anterior to the sutura dorsejugalis. The interlamellar space is 0.09mm. The lamellar setae extend beyond the tip of the rostrum. They do not overlap one another.
The rostral setae are 0.06mm long, curve inward in front of the rostrum, but do not touch one another.

The sensillae extend upward and laterad, then posteriorly and lateral over the antero-lateral tips of the pteromorphs. The head is about the width of the stalk and bears 5 rows of spines. The stalk is also spined or barbed, but the spines are less distinct than on the head of the sensillus.

Notogaster.—The sutura dorsalpegugal is complete. The notogaster bears 14 pairs of barbed filiform setae. They vary only slightly in length at various points on the notogaster with a mean length of 0.092mm and a range 0.085-0.10mm. The spines at the apices of the notogastral setae are coarser and longer than those at the bases of the setae. All notogastral setae are pointed.

There are 2 pairs of Sa sacculiar openings in addition to S1, S2, and S3.

The pteromorphs measure L 0.112 by W 0.056mm.

Ventral region.—Genital setae 5 pairs, the 2 posterior pairs are close to the posterior median border of the plates; there are 3 pairs of adanal, Ad, opposite the middle of the posterior end of each plate, Ad, posterior and lateral to the anal plate and Ad, lateral to the midpoint of the anal plate and posterior to the slit pore, iad.

Legs.—The legs were not studied in detail. The middle claw is larger than the other two.

Holotype.—One adult collected at Angel City, Merritt Island, Florida on 2 Nov. 1941 by E. W. Davis “from leaves and pine needles.” Balsam mounts were prepared by me in 1944. (Collection no.—Nevin 190). Holotype to be deposited in the Florida State Collection of Arthropods, Gainesville, Florida.

Remarks.—P. floridensis differs from P. tillandisius in having the notogastral setae pointed and in possessing longer sensilli with a head only double the thickness of its stalk. P. floridensis closely resembles P. longisetosus described from Guatemala by Willmann (1931) and P. canadensis described by Hammer (1952), but possesses no remnant of a tranelumella. P. floridensis possesses 5 pairs of sacculi; only 1 pair is shown in Willmann’s drawings of P. longisetosus. P. longisetosus measures 0.045-0.0465mm long and 0.315-0.330mm wide, so is a larger species. The notogastral setae of P. floridensis are much shorter than those of P. fragilis Hammer, 1967. They are also barbed to their tips, while in P. fragilis they are “smooth for most of their length, and proximately very finely barbed” (Hammer 1967). In P. magnisetasus Ramsay (Hammer 1967) the notogastral setae vary in length and are faintly barbed. The stalks of the sensilli of P. magnisetasus are much longer and the head is more pointed than in P. floridensis. P. banksi (Ewing 1909) is a larger species with notogastral setae of varying lengths.

Literature Cited


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