

NEW MITES FROM WESTERN NORTH CAROLINA

By ARTHUR PAUL JACOT

PLATE 26

The following species were obtained from litter samples taken from the Bent Creek Experimental Forest (ten miles south of Asheville on the Brevard road), which were taken to endeavor to determine the extent and rôle of the fauna of litter in causing litter reduction. The types are to be deposited in the U. S. National Museum. Figures of species not here illustrated are in my files and are to appear in a more comprehensive publication.

***Cultroribula divergens* sp. nov.**

Distal end of lamellae directed laterad; anterior edge of rostrum drawn downward in two attenuate cusps with the area between them (as seen in dorsal aspect) thinly sclerotized; anal and genital apertures close together; abdomen quite rotund; tectopodia I well developed, forming a bulge in dorsal outline of sides of cephaloprothorax; size varying in length from 0.23 to 0.24 mm., in breadth from 0.16 to 0.168 mm.

Cotypes: One hundred seven specimens from *Andropogon* field' herb-moss interspaces between grass plants, Case Place, Bent Creek Exp. Forest; taken February 6th, slide 34F24-8.

No individuals were obtained from the grass clumps.

***Cultroribula trifurcatus* sp. nov.**

Distal end of lamellae directed anteriorad though slightly more distant than further back; anterior edge of rostrum drawn forward in three attenuate cusps (trifurcate) as seen in dorso/ventral aspects; anal and genital apertures distant more than half length of genital aperture; abdomen somewhat flattened posterolaterally but quite broad; tectopodia I not forming a bulge in dorsal outline of sides of cephaloprothorax; size smaller and more slender: total length 0.214 to 0.224 mm., breadth 0.128 to 0.14 mm.

Cotypes: four specimens from dogwood (*Cornus*) litter, thirty-year-old field south of bunk-house, Bent Creek Exp. Forest; taken September 20th, slide 34F4.3-54.

Oppia elongata

Oppia elongata 4, p. 11, I rename *Oppia parviaures* **nom. nov.** since *Dameosoma elegantum* corrected on plate legends to *D. elongatum* 6, p. 43, is an *Oppia*.

***Oribotritia virginiensis* 3, p. 257, pl. 42**

Original figure 77 is correct except that the interrogation points on the aspis should be changed to minute circles to represent the rostral and lamellar bristle insertions. This posterior and lateral position of the rostral bristles is most unusual. In lateral aspect the pseudostigmatic organs look like a black spot because they are viewed end on. The fine combing of the notogaster makes the animal appear iridescent in life and in alcohol. The pocking is faint and appears to be on the inside of the body wall.

I have several specimens from various litter samples from the Bent Creek Exp. Forest.

***Euphthiracarus pulchrus pishahi* subsp. nov.**

Differs from the species (3, p. 250, pl. 39, fig. 59) in having pseudostigmatic organs somewhat wider but with almost smooth head; anogenital plates pocked over their entire surface.

Cotypes: Six specimens from oak litter, east slope of ridge above Poplar Cove; Bent Creek Exp. Forest; taken July 15th, slide 35F6.2-37.

***Phthiracarus apiculatus* sp. nov.**

Aspis with rostrum projecting beyond rim; carina absent; rostral bristles not unusual; vertex bristles not evident; pseudostigmatic organs oval, eyed, distal end drawn out into a hyaline, sharply pointed, down-curved apicule which is nearly as long as body of organ; notogaster oval, not high, tan to greenish grey (in small specimens), bristles fine, below medium length, depressed, angled proximad of middle, all usually near edge of collar; no accessory plate spoon; ventral plate with small, well spaced denticles; genital covers with anterior edge only slightly swollen; anal cover bristles II:1 to II:3 not visible in lateral aspect, I:1 and I:2 widely spaced, I:2 much longer than I:1; diagonal length of notogaster 0.37 to 0.58 mm.

Cotypes: Forty-eight specimens from oak litter, old growth stand, compartment 20, along brook, Bent Creek Exp. Forest; taken August 12th, slide 35F8.2-74.

Phthiracarus setanus sp. nov.

Aspis with very slender, nonprojecting rim; carina absent; rostral bristles not unusual; vertex bristles springing from a definite swelling, arched, just visible in lateral aspect; pseudostigmatic organs long, rodlike, pointed like a lead pencil, bent near pseudostigmata, distal third slightly more swollen than proximal two-thirds; notogaster oval, not high, bristles rather long, the longest about equal to length of genital covers, al near edge of collar; ventral plate denticles small; accessory plate without spoon; anterior edge of genital covers barely swollen, the bristles quite conspicuous; anal cover bristles I:1 and I:2 much shorter than II:1 to 00:3, II:2 inserted near transverse plane passing through I:2, II:3 distant from median edge of cover; diagonal length of notogaster 0.5 to 0.65 mm.

Cotypes: Eight specimens from litter of laurel slick, north side of Shut-in-Ridge, east of Walnut Cove, Bent Creek Exp. Forest; taken May 8th, slide 35F1.4-31.

Somewhat resembling *Ph. boresetosus* but bristles shorter; with ventral plate denticles; length of anal cover bristles the reverse; no accessory plate horn.

COCCORCHESTES 5, p. 573

Paul H. Oehser, editor of the U. S. National Museum, has kindly called my attention to *Coccorchestes* T. Thorell 1881 (Ann. Mus. Genova, vol. 17, p. 671, Araneina). I therefore propose as substitute for the generic name of the mite, *Coccorchestes humicolus*, the generic name *Oehserchestes* **nom. nov.**, making *Oehserchestes humicolus* **comb. nov.**

Histiostoma decemvirgae sp. nov.

Abdomen considerably broader and higher than cephaloprothorax; dorsal face with four pairs of conical apophyses each bearing a long, stout, backward curved bristle the length of which is nearly equal to breadth of abdomen, cephaloprothorax with one pair; ventral suckers broad-ovate; tarsi long and slender, tibiae longer than broad (tibiae I twice as long as broad); genuals one and a half times length of tibiae; tibiae with dorsal bristle long and stout, as long as dorsal bristles; sensory club inserted on proximal edge of tarsus, depressed, close to face of tarsus; ventral face with three of the usual spines, one at distal end, one slightly distad of distal fourth, and one at center; hind tarsi longer than tarsi I, bristles similar but with dorsal face bristle at proximal instead of distal fourth; mandibles acicular, palp bristles rather short; total length of adult females 0.2 mm.

Cotypes: Two specimens from litter of old woodland of a thirty-five degree, south slope, Bent Creek Exp. Forest; taken June 17th, slides 35F4.2-1a and -31.

The ten long, stout dorsal bristles, standing high above the body, make this the most easily recognized described American *Histiostoma*.

***Histiostoma tessellata* sp. nov.**

Figures 1 and 2

Abdomen depressed, posterior end bluntly tapering, sides with flat winglike expanses overhanging the legs, middle area of dorsum areolated, bristles very fine, straight; posterior ventral suckers short, oval, small end anteriad; mouth parts directed forward; rostrum broad, truncate in dorsal aspect; palps large transverse, their bases encompassing the slender mandibles; anterior bristles of palps long, directed upward, posterior bristle quite short; mandibular bristle short, inconspicuous; tarsi I not tapered or constricted, sensory club small, inserted at proximolateral edge of tarsus, not noticeable in lateral aspect; total length of body (including palps) 0.26 mm., of abdomen 0.15 mm., breadth 0.11 mm.

Cotypes: Three specimens from rift of oak litter, 200-year-old woods, Shut-in-Ridge (station 17, compartment 5), Bent Creek Exp. Forest; taken June 11th, slide 35F3X-9.

This lot also included two other specimens on slides 35F3X-7 and -18.

***Histiostoma verrucogenicula* sp. nov.**

Figures 6 to 9

Abdomen broad, rectangular, with an irregular, median hump, the bristles short, bent, depressed; cephaloprothorax much narrower than abdomen, anterior end truncate; mouth parts broad, directed downward so as to be barely visible from above; mandibles acicular, bristle short; anterior bristle of palps long, stout, extending ventrolaterally well beyond legs I; posterior bristle of palps short, strongly recurved; ventral suckers elongate-ovate (quite slender), extending mesad of legs III and IV, the broad end posteriad; leg bristles well developed, sensory club appears to be inserted in a notch cut out of dorsolateral edge of tibiae, thus appearing to spring from distal end of tibiae in lateral aspect; dorsoproximal end of tarsi I with a large wart (excrecence) composed of four or five transverse, crowded ridges; total length of body 0.34 mm., of abdomen 0.2 mm., breadth 0.18 mm.

Cotypes: Four specimens from mull litter of Rocky Cove, Bent Creek Exp. Forest; taken September 8th, 1934, slide 34F1-4.

Two immatures (?) from *Liriodendron* litter of a south cove, Shut-in-Ridge (B.C.E.F.); taken June 17th, slides 35F4 X-37, 35F4.2-28.

Histiostoma verruca sp. nov.

Figures 4 and 5

Length of females 0.25 to 0.29 mm., of males 0.18 to 0.2 mm.; skin granular; body oblong, with posterior bulge, dorsoposterior face of abdomen with a fairly large excrescence, oval in dorsal aspect; bristles short, nearly straight, tapering rapidly; ventral suckers elongate, one between legs II and III, one mesad of legs IV, parallel to median plane; sensory club inserted on posterior edge of tarsus; leg bristles short, except distal which is slightly over half the length of tarsus; mandibles needlelike (unhooked), untoothed, bristle long, curving well beyond sides of rostrum; palp bristles long, fairly stout; males with posterior end of abdomen produced as two prominent, clear edged, semicircular lobes (recalling *Histiogaster* when seen in dorso-ventral aspects) the posterior edge of which bears a minute bristle inserted laterad of center of lobe; the four suckers close to median plane, oval, the anterior pair separated from the posterior pair by their own length.

Cotypes: Two females from litter of old woodland of a thirty-five degree, south slope, Bent Creek Exp. Forest; taken June 17th, slide 35F4.1-2.

Most closely related to the European *H. fimetarius* as figured by Berlese (1, fasc. 9:7), but easily recognized by the rather large median pea-wart on posterior end of its back.

Although the commonest litter *Histiostoma* of this region it is uncommon. With the cotypes (but mounted on different slides) were fourteen additional females and three males. Another lot from a northern cove (Rocky Cove), contained three females and one male.

Macrocheles (Coprholaspis) appalachicus sp. nov.

Bristles of dorsum numerous, fine, overlapping, more numerous behind, no particular shoulder bristles; hypostome with a prominent, stout median spine, anterior edge finely sawtoothed to smooth; sternal, genital and anoventral scutes faintly, coarsely areolate, the areolations on sternal scute usually forming concentric semiovals culminating in the "linea oblique anteriores," the anterior ends of which are as approximate as they are distant from the ingular bristles; ingular and metasternal scutes fused to sternal; epigynal scute broad; anoventral scute in males fused to sternal and to peritremal, in females distinct, extending laterad as far as does the peritremal; no repugnatorial pores; no porose (punctate) areas; sculpturing of anogenital scute resembling fish scales; tarsi I retain a diminutive ambulacrum with the usual two nails, half the length of terminal bristles; tarsi II of females with seven stout spinelike bristles (five ventral, two dorsal); distal end of horn of male femur II three-ridged; femora IV unarmed; proximoventral edge of tarsi, tibiae and genuals denticulate; size variable: total length of dorsal shield of females 1.3 to 1.65 mm., breadth 0.8 to 1.0 mm.

Cotypes: Two males and a female from deciduous litter west side of ridge above Poplar Cove, Bent Creek Exp. Forest; taken July 29th, slide 35F7.1-25.

Most closely related to *M. bihastatus* 2, p. 286, fig. 1, differing in absence of the two lateral teeth, in absence of shoulder bristles, the greater armature of female tarsus, and the much greater size.

Twenty-four other adults from ten lots of forest litter of various types about the Bent Creek area are before me, never more than four per square foot. This species may thus be regarded as thinly sprinkled about the forest floor of this region.

NORTHEASTERN FOREST EXPERIMENT STATION,
NEW HAVEN, CONNECTICUT.

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PLATE 26

Histiostoma tessellata sp. nov.

Fig. 1. Lateral aspect of cephalon and leg I; $\times 500 \pm$

Fig. 2. Dorsal aspect of cephalon; $\times 500 \pm$

Fig. 3. Dorsal aspect of abdomen (sketch); $\times 318 \pm$

Histiostoma verruca sp. nov.

Fig. 4. Ventral aspect of mouth parts (right half); $\times 668 \pm$

Fig. 5. Lateral aspect, conspicuous bristles only; $\times 318 \pm$

Histiostoma verrucogenicula sp. nov.

Fig. 6. Dorsal aspect of right tibia I, showing wart and clavate bristle; $\times 500 \pm$

Fig. 7. Mesal aspect of same; same mag.

Fig. 8. Lateral aspect of cephalon and leg I; $\times 500 \pm$

Fig. 9. Dorsal aspect of mouth parts; $\times 500 \pm$

PLATE 26

