

THREE NEW SOUTHEASTERN PARASITIC HYMENOPTERA

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Three new species of parasitic Hymenoptera for which names are needed are described in this paper. One is a braconid of the genus *Macrocentrus* which apparently occurs widely through the southeastern states as a parasite of certain lepidopterous larvae in pine cones. The others are Proctotrupoidea of the diapriid genus *Trichopria*; both have been reared from pupae of Syrphidae. The holotypes of all three species are in the National Museum; paratypes are in the Florida State collection of Arthropods at Gainesville.

Trichopria myoleptae, new species

(Fig. 1, A and B)

This differs from all other North American species of *Trichopria* known to me in combining non-clavate female antennae and a scutellar disc that is broadly truncate at apex and bears a weak but distinct median longitudinal keel. Superficially it rather resembles *Diapria* but it lacks the V-shaped incision at the base of the gaster that is characteristic of that genus.

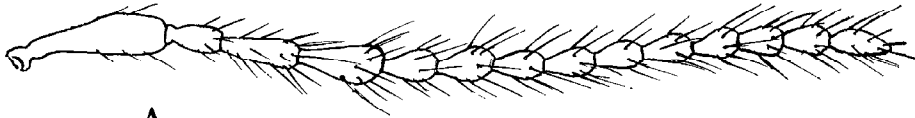
Female.—Length about 2.2 mm. Head globular, in dorsal view barely wider than long, not wider than thorax, smooth and polished; temple receding strongly, about as wide as eye; ratio of length of malar space to eye height, 3:7; face a little wider than eye height; median ocellus slightly larger than lateral ocelli; distance between median and lateral ocelli just about equal to the diameter of the median ocellus; ocellocular line about twice as long as the longest diameter of a lateral ocellus; antenna without a distinct club, the flagellum being gradually and only slightly thickened toward apex; scape a little longer than width of face and about as long as pedicel and the first two flagellar segments combined; pedicel and first two flagellar segments subequal in length, more than twice as long as broad, the following segments successively a little shorter and thicker; lower occiput with about 18-20 long erect setae arranged in two or three irregular rows.

Mesonotum smooth and polished; prescutellar furrow very large and divided into several pits by low longitudinal ridges; disc of scutellum broadly truncate behind and weakly longitudinally carinate down the middle; propodeum coarsely rugose reticulate and with a very prominent median, longitudinal, tubercle-like keel; mesopleuron polished; metapleuron rugulose and thickly hairy. Hind wing relatively broad, fully twice as broad as the length of the longest marginal cilia.

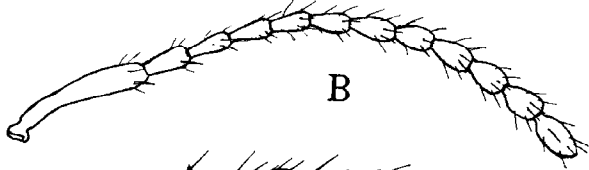
Petiole of abdomen coarsely longitudinally rugose and thickly covered with long hair, nearly twice as long as broad; gaster smooth and polished, a little wider than thorax, widest at the middle and gradually narrowing toward base and apex, acute at apex.

Black; antennae dark brown; legs yellowish brown; wings subhyaline.

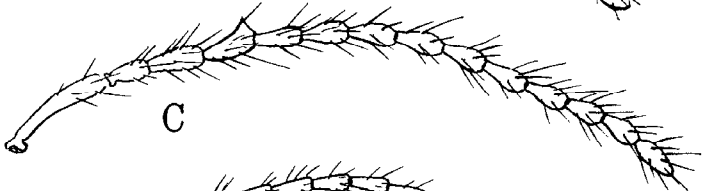
Male.—Essentially like the female except for the very different antennae (Fig. 1, A).



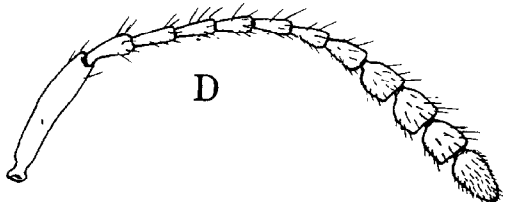
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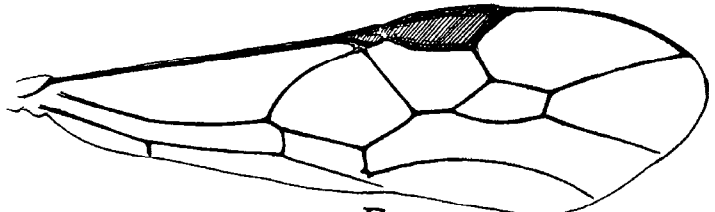
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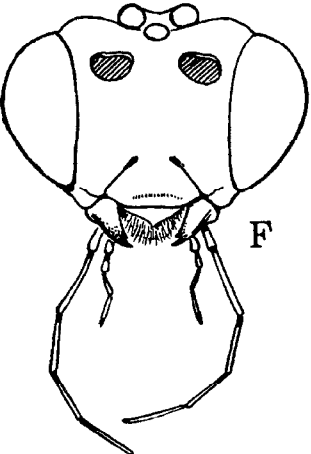
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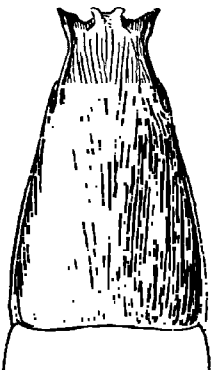
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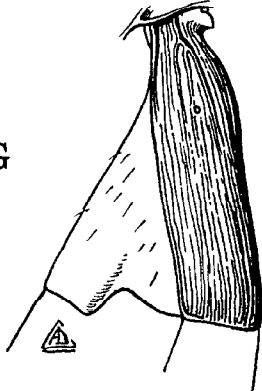
E



F



G



Described from 11 females, one the holotype, and 4 males, one the allotype, reared by W. W. Smith at Gainesville, Florida in April, 1965, from pupae of the flower fly *Myolepta varipes* Loew.

Trichopria dentata, new species

(Fig. 1, C and D)

Although also reared from the pupa of a flower fly (Syrphidae) this species differs strikingly from the foregoing species in having the female antennae distinctly clubbed, the non-carinate disc of scutellum, the much narrower hind wings and the quite different male antennae in which the second flagellar segment is sharply dentate. Superficially it is more similar to *T. tabanivora* Fouts, but the male antennae are very different and the female abdomen is acute at the apex whereas it is subtruncate in *tabanivora*.

Female.—Length barely 2 mm. Head globular, smooth and polished, in dorsal view wider than long in the ratio of 7:6; temple receding, about as wide as eye; malar space very nearly or quite as long as the eye height; ratio of width of face to eye height, 8:5; distance between ocelli one and one-half times as long as diameter of an ocellus; antenna with a distinct 5-segmented club, scape considerably longer than width of face and as long as pedicel and first and second flagellar segments combined, first and second flagellar segments about equal in length and nearly three times as long as their apical width, third and fourth segments slightly shorter than first and second, fifth about as long as third and fourth but a little thicker, remaining segments comprising the club, in which the two segments before the last are about as wide as long; a single row of 8 long erect setae arising from lower margin of occiput.

Mesonotum smooth and polished; prescutellar fovea large, smooth and polished and without distinct longitudinal ridges; disc of scutellum subquadrate, broadly truncate at apex, and nearly flat without any suggestion of a median longitudinal carina; propodeum rugulose, with a high, laterally compressed tubercle-like median prominence basally; mesopleuron smooth and polished; metapleuron rugulose and thickly covered with long whitish hairs. Hind wing very narrow, its maximum width hardly equal to the length of the cilia on the posterior margin.

Petiole of abdomen less than twice as long as wide, longitudinally rugose, hairy; gaster polished and with only a few scattered hairs basally and apically, widest beyond the middle, narrowing abruptly on apical fourth, acute at apex.

Black; antenna basad of club yellowish brown, club blackish; legs brownish; wings hyaline.

Male.—Except for the antennae (Fig. 1, C) essentially like the female. The most characteristic feature of the antenna is the acute, tooth-like angulation of the second flagellar segment.

Fig. 1. Details of new parasites: A—Antenna of male of *Trichopria myoleptae*; B—Antenna of female of *T. myoleptae*; C—Antenna of male of *T. dentata*; D—Antenna of female of *T. dentata*; E—Fore wing of *Macrocentrus dioryctriae*; F—Front view of head of *M. dioryctriae*; G—Dorsal and lateral views of first abdominal tergite of *M. dioryctriae*. Drawn by Arthur D. Cushman, U. S. Department of Agriculture.

Described from 3 females, one the holotype, and 9 males, one the allotype, reared from the pupa of an unidentified species of Syrphidae taken at Town Creek, Alabama, 19 September, 1955, by W. Snow.

Macrocentrus dioryctriae, new species

(Fig. 1, E, F, and G)

This species appears to be most closely related to *delicatus* Cresson, but it is larger and it differs constantly in various details, particularly in having the lower part of the mesopleuron and the metapleuron strongly sculptured.

Female.—Length usually around 8 mm. Head much wider than thorax and in dorsal view two and one-half times as wide as long; face flat, not quite as wide as eye height, slightly roughened; malar space shorter than maximum diameter of a lateral ocellus; the lateral ocelli one and one-half times as large as the median ocellus, maximum diameter of a lateral ocellus three-fourths as long as the ocellular line and distinctly longer than postocellar line; antennae very long and slender, 57- to 62-segmented in the specimens examined.

Thorax about two and one-half times as long as wide; notauli sharply impressed and finely foveolate; middle lobe of mesoscutum prominent; prescutellar furrow divided into 8 or 10 shallow longitudinal foveae by longitudinal ridges; disc of scutellum nearly flat, twice as long as median length of metanotum; propodeum nearly horizontal, rugulose but more weakly so toward base; side of pronotum rugulose in the longitudinal impression; mesopleuron closely rugulose or rugulose punctate on lower half; metapleuron usually entirely rather coarsely rugulose; legs very slender; inner calcarium of hind tibia a little less than half as long as metatarsus. Fore wing with radius arising from considerably beyond middle of stigma, the section of the posterior margin basad of origin of radius being twice as long as the section beyond radius; second cubital cell normally 0.85-0.90 as long as first discoidal cell; second abscissa of cubitus more, usually much more, than half as long as recurrent vein; nervulus postfurcal by less than its length; interanal vein strongly developed and complete; hind wing with nervellus perpendicular to anterior wing margin and nearly as long as lower abscissa of basella.

Abdomen a little narrower than thorax; first tergite about twice as long as wide at apex, not impressed at base, very closely and finely aciculate, the spiracles farther from each other than from base of tergite; second tergite a little shorter than its maximum width and closely finely aciculate like the first; third tergite a little shorter than the second and weakly aciculate on basal half; remainder of abdomen smooth and shining; ovipositor sheath about 1.3 times as long as head, thorax and abdomen combined.

Yellowish brown; lower part of mesopleuron and more or less of metapleuron and propodeum usually noticeably darkened; legs yellow; wings hyaline, the veins mostly darkened but the stigma yellow and the costal thickening, except for a short distance before stigma, and the metacarpus, yellow.

Male.—Like the female in essential particulars. Normally the males

are somewhat smaller and in the male specimens examined the antennae are 55- to 57-segmented.

Described from 37 specimens. The female holotype was reared from *Dioryctria clarioralis* (Walker) on *Pinus palustris* in Baker County, Florida, 4 May 1959, by B. H. Ebel; and the allotype is labeled "Ex *Dioryctria* in pine cone, Quantico, Maryland, 1964, C. W. McComb." Fifteen of the paratypes are from various localities in Florida, some of them field-collected specimens, others recorded as having been reared from *Dioryctria clarioralis*, *D. amatella* (Hulst), *D. abietella* (Denis and Schiffermüller) and *D. sp.*; 2 are from Gulfport, Mississippi, reared from *Dioryctria sp.* on *Pinus palustris*, October 1958; 1 is from Edgefield, South Carolina and is labeled as having been reared from *Eucosma sp.* in July 1965; 1 was obtained from a cone of *P. palustris* in Washington, D. C., July 1916, and 1 from a cone of loblolly pine at Gasburg, Virginia in October 1961; and 15 were reared from pine cones in Cleveland County, Arkansas in 1960.

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