TWO NEW THYSANOPTERA FROM FLORIDA

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Sophiothrips bicolor n. sp.

Macropterous Female:—Length about .9 mm. Color of head and thorax brown (raw umber) (Ridgeway's color Standards), basal half of femora and antennal segment III shaded with the same color; abdomen, tibiae, tarsi, and apical portions of femora primrose yellow (Ridgeway). Tube somewhat deeper yellow, antennal segments I-VII considerably lighter (Marguerite yellow—Ridgeway). Forewings grayish brown in apical half, basal fourth darker especially at base, gradually changing to an almost colorless band just below the middle. Hind wings with a conspicuous median colorless streak bordered on each side by a dark line which is much darker on posterior side. A narrow band along each border almost colorless.

Head but little wider than long, retracted far into prothorax, only a little wider in the single paratype, cheeks nearly straight and parallel except for a shallow notch immediately behind the eyes and a slight rounded protuberance immediately posterior. Dorsal surface very faintly reticulated, somewhat angularly produced in front of eyes, bearing in front of each posterior ocellus a heavy spine (about 26 microns long), dark except for the widely expanded apex which has sharply toothed margins. These are the largest bristles on the head. Postocular (?) bristles very similar (23 microns long) situated close to outer angles of eyes and very close to lateral margin of head. A minute bristle behind each posterior ocellus and a similar one near the inner posterior angle of each eye. Eyes rather large, occupying rather more than half the lateral profile of the head, each one about three-fourths the width of their interval; dark; facets rather small.

Ocelli rather large, situated opposite anterior half of the eyes and close to their margins, bordered by wide, dark red crescents. Mouth cone reaching three-fourths distance across prosternum, broadly rounded at apex.

Antennae twice as long as head. Base of first segment overhung by vertex, almost square in outline; II, oval with a short, very broad pedicel; III top-shaped with a long, narrow pedicel, cones near apex only about half as long as this segment, curved but not bent under segment IV; IV broadly oval with practically no pedicel, sense cones larger than those.

1 Contribution from the Department of Entomology, Florida Agricultural Experiment Station.
on III but only about half as long as the segment; V similar in shape but with a short, broad pedicel; VI oblong-oval with a short narrower pedicel, VII-VIII a lanceolate mass with suture between the segments plainly visible, VII with short broad pedicel, VIII sharply conical in shape, terminal bristle very much longer than the segment.

Prothorax (including coxae) in width nearly twice the median length of pronotum, which is considerably larger than the head. Setae stout and broadly capitate similar to those of the head; posterior marginals about 33 microns long, midlateral somewhat shorter, anterior laterals still smaller, anterior marginals situated nearer the median line than the lateral border, as long and heavy as the marginals, coxals nearly as long and heavy, all straight and dark. Fore tarsus with a tooth which is decidedly shorter than the width of the tarsus. Forewing without accessory bristles.

Abdomen short and heavy, segments two to six provided with a pair of long dark, conspicuous capitate bristles on posterior border about midway between the median line and the lateral border. These are about as long as those in front of the ocelli. Midway between these and the lateral border, extending also to segments 7 and 8, is a series of more slender pale bristles, those on segment 9 nearly as long as tube, terminal bristles somewhat longer than the tube. Tube a little shorter than the head, abruptly contracted to the apex, heavily chitinized and prominently ridged. Terminal bristles a little longer than the tube.
Measurements of type: Head, length .12 mm., width .125 mm.; prothorax, median length .14 mm., width (including coxae) .25 mm.; pterothorax, greatest width .25 mm.; abdomen, greatest width .24 mm. Tube, length .10 mm., width at base .05 mm., at apex .026 mm. Antennae, total length .24 mm. Segments, length (greatest width): I, 21(23); II, 35(28); III, 38(23); IV, 35(26); V, 35(26); VI, 40(24); VII, 23(16); VIII, 21(10) microns.

Apterous Female:—Color of type similar to that of the macropterous female; fore and middle femora largely brown but shading gradually lighter apically, hind femora shaded with brown only on anterior margin.

Head fully as long as wide. Ocelli lacking. Otherwise very similar to macropterous female. Measurements almost identical.

Total body length varying from .63 mm. to .92 mm. in paratypes. Prothorax nearly .4 longer than head.

Apterous Male:—Very similar in color to aperous female. Averaging a little smaller, from .57 mm. to .87 mm. in paratypes. Fore femora varying greatly in size. In the type immense, .09 mm. wide and .21 mm. long, fully as wide as the head and longer than prothorax. Tooth on fore tarsus very large, longer than the width of the joint, triangular in shape. Tube shorter and wider at base than in aperous female. Otherwise measurements very similar. In some paratypes the fore femora are scarcely larger than in the female.

Described from three macropterous and 10 aperous females and six males. Collected from dead leaves under live oak trees December 15, 1935, Marion County, Florida, March, 1936, and August, 1933, and Alachua, December 15, 1935; and from “Spanish Moss” (Dendropogon), Alachua County, September 26, 1938; Lake County, May 12, 1933, and from scrapings from the bark (lichen and moss) of a live oak tree, Monticello, Florida, September 13, 1927.

Types in author’s collection. Paratypes in National Museum.

This strikingly colored insect undoubtedly belongs to Sophiothrips, hitherto reported only from Panama, although the spines on antennal segments III-VI are not nearly as long as described by Hood in his characterization of the genus and do not curve under the segments in front, and the prothorax is distinctly longer than the head. In other characters it agrees closely with the characters of the genus as described by Hood. Its color will serve to readily separate it from squamosus and panamensis.

Eurythrips robustisetis n. sp.

Apterous Female:—Body length 1.0 to 1.8 mm. Color yellowish brown by transmitted light, dark brown by reflected light. Tarsi, distal ends of femora and tibiae and first antennal segment (in some individuals the second also) and pedicel of third brownish yellow; antennal segments
III-VIII and tube dark brown; head and body with much subcutaneous pigment, purplish red by transmitted light, bright crimson by reflected.

Head about one and one-fourth times as long as wide, cheeks slightly arched, diverging slightly posteriorly, very slightly contracted behind the eyes. Dorsum smooth. Postocular bristles very long (75 microns in the type), projecting well beyond the head, strongly capitate, brown, with both base and apex colorless, situated close to eyes. Two pairs of minute ones midway between eyes and base and postocellars also minute. Vertex extending slightly over the bases of the antennae. Eyes small, showing five or six facets along the front margin. Orange by reflected light and almost black by transmitted. Ocelli lacking. Mouth cone short, hardly reaching the middle of prosternum. Antennae over twice as long as head but slender. Segments 3 to 8 with narrow but short pedicel.
those of segments 6 and 7 particularly so; 2 cup-shaped, 3 clavate, 4 ovoid, 5-7 oblong oval, 7 long, conical.

Prothorax .7 as long as head and, including coxae, twice as wide as long. A strong (47 microns long) brown, capitate bristle at each anterior angle and a pair of similar but longer ones (59 microns) along anterior margin. A pair at each posterior angle as long as the postoculars, and similar ones on each coxa, mid-laterals minute.

Pterothorax about as wide as prothorax including coxae.

Legs about color of body but tibiae and femora darkened along the margins, lighter at ends. Fore tarsus unarmed.

Abdomen slender for a Eurythrips. The posterior angles of each segment provided with dark robust setae, capitate except those on the 9th segment which are pointed; a single one on segments 1 and 2, two on segments 3 to 8 (the inner of which is decidedly longer than the outer), three on the 9th segment, about as long as the tube.

Tube about two-thirds as long as the head. Three pairs of terminal bristles about as long as the tube.

Measurements of the type which is larger than any of the paratypes:
Total length 1.8 mm. Head, length .18 mm., width .16 mm.; prothorax, length .14 mm., width (including coxae) .28 mm.; pterothorax, width .30 mm.; abdomen, width .33 mm.; tube, length .13 mm., width at base .07 mm., at apex .037 mm.

Antennal segments; length (breadth):—I, 42(35); II, 47(30); III, 56(26); IV, 64(28); V, 57(26); VI, 54(26); VII, 51(21); VIII, 47(15) microns. Total length .42 mm.

MALE (apterous):—Very similar to the female but smaller.

Measurements of type: Total body length 1.2 mm. Head, length .16 mm., width .14 mm.; prothorax, length .12 mm., width (including coxae) .23 mm.; pterothorax, greatest width .23 mm.; abdomen, greatest width .26 mm.; tube, length .11 mm., width at base .066 mm., at apex .033 mm. Antennal segments, length (width):—I, 35(30); II, 40(25); III, 47(26); IV, 47(28); V, 47(23); VI, 44(21); VII, 44(19); VIII, 40(12) microns. Total length .34 mm.

Described from nine females and two males taken from decaying leaves of live oaks in Putnam County, Florida, June 21, 1936, and decaying pine needles in Alachua County, April 4, 1938.

In its color, long setae with strongly dilated tips and the absence of sculpture on the dorsum it resembles E. macrops Hood but differs in the heavy dark colored setae, the large anterior marginal ones on the prothorax, the color of the hypodermal pigment, the narrower antennal segments, and the much shorter tube.