NEW MARQUESAN THYSANOPTERA*

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TEREBRANTIA HALIDAY

SUPERFAMILY THRIPOIDEA HOOD, 1915

FAMILY THRIPIDAE UZEL, 1895

SUBFAMILY THRIPINAE KARNY, 1921

Genus ISONEUROTHRIPS Bagnall: Ann. Mag. Nat. Hist., vol. 15, p. 592, 1915.

Isoneurothrips brevicornis, new species (fig. 44, a-c).

Female holotype

Body uniformly dark brown. Antennae dark brown except the extreme base and apex of the third and fourth segments, which are lighter. Legs dark brown except all tarsi and fore tibiae, which are light yellowish brown. Wings uniformly dark brown. Eyes black. Body spines dark.

Total body length, 1.245 mm.; head length, 0.120 mm., width, 0.195 mm.; prothorax length, 0.150 mm. and width, 0.232 mm.; pterothorax length, 0.300 mm., width, 0.330 mm.; abdomen, greatest width, 0.335 mm. Segments of antennae, length (width) in microns: first, 20 (32); second, 40 (32); third, 48 (28); fourth, 52 (29); fifth, 32 (29); sixth, 48 (30); seventh, 16 (10); total length, 260. Length of spines in microns: inter-ocellar, 24; on posterior angles of prothorax, outer, 88, inner, 88; inner pair on posterior margin, 32; on metanotum, outer pair, 28, inner pair, 60; on ninth abdominal segment, inner, 104 to 112, outer, 122 to 140; on tenth abdominal segment, 102 to 114.

Head much broader than long, not rounded in front, cheeks arched and roughened along edges, surface behind eyes with only two rows of cross striations at posterior part of head. Interocellar spines small, placed outside of ocellar triangle along sides of anterior ocellus, a row of five spines behind each eye, the outer one of which is prominent, the second very small, the third large, the fourth small like the second, and the inner one large. Eyes large, strongly protruding, occupying over half of head's length. Ocelli large, twice as large as facets of eye, posterior pair placed far apart, contiguous to eyes and slightly anterior to a line connecting the posterior margins of the eyes. Mouth cone short and blunt, reaching only to posterior margin of prosternum. Antennae short and stout, with short, stocky segments, only slightly more than twice as long as head.

* Pacific Entomological Survey Publication I, article 17, issued November 20, 1932.

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Prothorax broadly quadrangular with sides only slightly rounded. Pronotum without cross-striations, with only two long setae in the median area and with a row of four or five small setae along each lateral margin. Spines on posterior angles of the prothorax long and equal in length, two spines on each side along the posterior margin. Median spines on metanotum placed approximately 12 μ behind anterior margin. Pterothorax with sides rounded, metanotum reticulated. Legs strong, well developed, with many spines, posterior tibiae with a series of 8 stout spines on the inner side. Wings fully developed. Spines on veins of fore wings evenly spaced as follows: costa, 25 to 26; fore vein, 15; hind vein, 14 to 15.

· Abdomen broad, narrowed at apex, eighth segment without comb. Spines on ninth and tenth abdominal segments strong.



FIGURE 44. Isoneurothrips brevicornis, new species, and Bolothrips nigra, new species: a, head and prothorax of female, I. brevicornis; b, right antenna of female, I. brevicornis; c, end of abdomen of male, I. brevicornis; d, head and prothorax, B. nigra; 3, end of abdomen, B. nigra.

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Male allotype

Colored as in female. Total body length, 1.020 mm.; head length, 0.112 mm., width, 0.180 mm.; prothorax length, 0.120 mm., width, 0.210 mm.; pterothorax length, 0.270 mm., width, 0.285 mm.; greatest width of abdomen, 0.225 mm.; total length of antenna, 0.247 mm. Length of spines: interocellar, 30 μ ; spines on posterior angles of prothorax, 68 μ to 76 μ ; outer spines on ninth abdominal segment, 76 μ , on tenth segment, 88 μ .

Similar to female in appearance and form except for smaller size. Abdominal segments 2 to 6 with oval-shaped clear areas on the sternites which increase in size from the second to the sixth, segment 9 with a transverse row of four median dorsal spines, each about $32 \ \mu$ long.

Hivaoa: Matauuna, elevation 3,900 feet, April 14, 1930, female holotype, male allotype, 5 female paratypes, 1 male paratype, all on *Reynoldsia* species, Mumford and Adamson. Type, B. P. Bishop Museum, Moulton no. 4196.

The dark color of the body and antennae with uniformly dark wings and the short, stocky antennae distinguish this species from all other described species except *I. antennatus* Moulton, *I. fullawayi* Moulton and *I. jenseni* Karny, but *I. brevicornis* can be distinguished from these as follows: *I. antennatus* has strong interocellar spines which are placed between the posterior ocelli, long slender antennae about three times as long as the head, fore vein of fore wing with 21 spines and a complete comb on the posterior margin of abdominal segment 8; *I. fullawayi* has strong interocellar spines which are placed between the posterior ocelli, the fore vein of the fore wing with 18 to 21 spines, and a complete comb on the posterior margin of the eighth abdominal segment; *I. jenseni* is a smaller species, only 0.8 mm. to 0.9 mm. long, the fore wings clear in the basal fourth or fifth, and the pronotum set with short setae.

TUBULIFERA HALIDAY

SUPERFAMILY PHLOEOTHRIPOIDEA Hood, 1915

FAMILY PHLOEOTHRIPIDAE UZEL, 1895

SUBFAMILY MEGATHRIPINAE PRIESNER, 1927.

TRIBE COMPSOTHRIPINI PRIESNER, 1927.

Genus BOLOTHRIPS Priesner, Die Jugendstadien der malayischen Thysanopteren: Treubia, vol. 8, Supplement, p. 90, 1926. Thysanoptera of Europe, p. 684, 1927.

Bolothrips nigra, new species (fig. 44, d, e).

Holotype (sex undetermined)

Body color dark blackish brown. Antennae concolorous with body, except extreme base of segment 3, and tips of 3 and 4 which are yellowish brown. Legs concolorous

with body except all tarsi, which are slightly lighter. Eyes dark purplish black with outer margins yellowish white. Body spines brown.

Total body length, 2.025 mm.; head length, 0.285 mm., width, 0.240 mm.; prothorax length, 0.165 mm., width, 0.360 mm.; mesothorax length, 0.210 mm., width, 0.355 mm.; abdomen, greatest width, 0.525 mm.; tube length, 0.232 mm., width, 0.097 mm. Antennal segments: length (width) in microns: first, 40 (52); second, 49 (36); third, 84 (36); fourth, 92 (38); fifth, 80 (36); sixth, 72 (32); seventh, 48 (20); eighth, 38 (18); total length, 0.510 mm. Eye length dorsally, 0.075 mm., ventrally, 0.098 mm. Length of spines in microns: interocellar, 28; postocular, 133; anterior angles of prothorax, 32; posterior angles of prothorax, 100; ninth abdominal segment, 124; tenth segment, outer, 192, inner, 160; end of tube, longer, 160, shorter, 60.

Head rounded in front with cheeks arched, somewhat narrowed posteriorly. Interocellar spines small and indistinct, postoculars long and pointed. Cheeks with three or four short, pointed spines. Eyes small, slightly protruding, occupying about 0.26 of head dorsally, and extending ventrally as characteristic of the genus, so that about 0.34 of the head length is occupied ventrally. Ocelli not discernible. Mouth cone short, reaching to posterior margin of prosternum and rounded at tip.

Antenna 8-segmented with segment 8 separated from 7. Two slender sense cones on segment 3, four sense cones on segment 4, and two sense cones on segment 5.

Prothorax narrowed anteriorly with posterior angles broadly rounded, spines on anterior angles small, those on posterior angles longer, all pointed. Legs moderately stout, fore femora enlarged, fore tarsi bearing a large claw. Wings absent.

Abdomen elongate ovate, tube 0.8 length of head, segments 5 to 10 bearing long pointed spines.

Hivaoa: Mount Temetiu, elevation 3,620 feet, July 24, 1929, Mumford and Adamson. Types, B. P. Bishop Museum, Moulton no. 4204.

This species is distinguished by its uniformly dark body color, dark antennae, and prominent brown spines on the abdomen. It is close to *B. brachyurus* (Bagnall) in color, but the tube of *B. brachyurus* is short and stout, 190 μ long and 100 μ wide at base, compared with the elongate tube of *B. nigra* which is 232 μ long and 97 μ wide at the base. Also the postocular bristles of *B. brachyurus* are fine and short, only about as long as the eye, 67 μ , whereas those of *B. nigra* are much longer than the eye, 133 μ .