FAUNA OF THE THYSANOPTERA IN JAPAN

By

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(Part V)

(With 2 Text-figures)

Suborder TEREBRANTIA HALIDAY
Superfamily ACOLOTHRIPIDEA HOOD
Family THRIPIDAE UZEL

17. Thrips moultoni sp. nov.

Female holotype. Colour: head, abdomen dark-brown, head darker at the front and cheeks. Antennal segments 1, 2, 6 and 7 dark-brown, 2 distally and 6 basally paler, 3, 4 and 5 uniformly pale yellow.

All femora brownish yellow, paler at the base, all tibiae and tarsi yellowish. Fore wings pale grayish yellow in basal 5th, pale brown in outer 4-5ths; hind wings colourless, with a longitudinal vein pale brown. Crescents of ocelli ambiguous in this specimen (other paratypes always being reddish brown).

All prominent spines of the body and wings dark brown. Total length of the body 1.376 mm.; head length .137 mm., width .137 mm.; prothorax length .155 mm., width .249 mm.; pterothorax length .223 mm.; segments of the abdomen: segment 6 .103 mm., width .241 mm., segment 7 .096 mm., width .224 mm., segment 8 .086 mm., width .189 mm., segment 9 .078 mm., width .155 mm., segment 10 .069 mm., width .06 mm.

Segments of the antenna: length (width) I, 24 (27); II, 30 (25); III, 36 (16) with a forken sense-cone 15 µ dorsally; IV, 35 (18) with a forken sense-cone 15 µ ventrally; V, 34 (16); VI, 49 (18); VII, 20 (7); total length 240 µ.

Length of the spines: postoculars 20 µ; on the frons 44 µ; on the posterior margin of the prothorax, outer 44 µ, inner 56 µ; on the abdominal segments: segment 9 131 µ, segment 10 109 µ.

Head just as long as wide, angular in front, slightly constricted behind the eyes; cheeks almost straight. Eyes slightly protruding, occupying about half length of the head. Ocelli moderate size, subapproximate, well separated from inner margins of the eyes.

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Mouth-cone broad at the base, gradually reduced to the rounded tip, reaching to the middle of the fore coxae.

Antenna comparatively short and slender, 1.67 times as long as the head. Prothorax .78 times as long as wide, with almost straight sides; spines on the posterior angles short, .56 the length of the median dorsal line.

Mesothorax distinctly larger and wider than pro- and meta-thorax.

Legs: fore legs short and thick (coxa, femur and tibia), middle legs the shortest, hind legs the longest.

Fore wings moderately developed, reaching almost to the posterior margin of abdominal segment 5, with spines as follows: costa 28, fore vein 8, hind vein 11; hind wings narrow and straight with long fringes.

Abdomen elongate-ovate, with spines singly placed; spines on the segments 9 and 10 long.

Male allotype. Colour: head, thorax, abdomen, all legs and antennal segments 1 to 5 yellowish brown, 6 to 7 dark brown, crescents of ocelli orange red; fore wings pale grayish brown; hind wings colourless, with a longitudinal vein pale brown. Prominent spines of the body and wings brown.

Total length of the body (abdominal segments habitually overlapped each other) .86 mm.; head length .129 mm., width .096 mm.; prothorax length .155 mm., width .163 mm.; pterothorax length .108 mm., width about .181 mm.; abdomen length .413 mm., width (at the broadest segment 3) .172 mm.

Segments of the antenna; length (width) I, 20 (26); II, 29 (28); III, 36 with a forken sense-cone 7 μ dorsally (17); IV, 36 with a forken sense-cone 9 μ ventrally; V, 29 (17); VI, 45 (17); VII, 5; total length 189 μ. Length
of the spines: interocellars about 15 μ, postoculars 12 μ, 2 spines on each posterior angle of the prothorax subequal, 52 μ; on the abdominal segment 9 97 μ; on 10 67 μ; spines of the wings as follows: costa 20-33, on fore vein 6-7, on hind vein 14.

Head 1.35 times as long as wide; cheeks almost straight; back of the head with fine wrinkles. Eyes large, slightly protruding, occupying about half of the head; facets of the eyes rough, pilose.

Ocelli large, separated from inner margins of the eyes (others sometimes contiguous with the inner margins of the eyes); interocellars, postoculars and sense-cone very short. Mouth-cone short, about half length of the head, slightly constricted at the base.

Prothorax slightly wider than long, sides evenly straight and smooth.

Abdominal segments habitually overlapped each other, with strong saw-like cilia along the posterior margins, except the segments 9 and 10. Wings long, slightly extending from the abdomen.

Type material: holotype ♀ (ISHIDA No. 778), collected from the sugar cane on March 3, 1925 by Dr. R. Takahashi, allotype ♂ (ISHIDA No. 726), from the flowers of the pea and others from tassels or leaves of the sugar cane, by Mr. T. Kurata and myself (ISHIDA Nos. 715, 716, 1668, 1669, 1671, 1676 and others). The holotype in the Entomological Museum, Hokkaido Univ., Sapporo.

Type locality: Shinka, Formosa.

18. Thrips mucunae sp. nov

Female holotype. Colour: head and thorax brownish yellow, abdomen pale brown, segment 1 paler; antennal segments 1 to 2 concolorous with the head, 2 paler at the distal portion, segments 3 to 4 whitish yellow, segments 5 to 6 pale brown, basal half of the segment 5, and basal 4th of the segment 6 paler. Eyes entirely black by a transmitted light, but by a direct light red; ocelli orange red. All legs uniformly pale yellow. Fore wings pale gray in basal 1-5th pale grayish brown in outer 4-5ths, hind wings pale gray, with a longitudinal vein pale brown.

All prominent spines of the body and wings pale brown.

Total length of the body 1.023 mm.; head length .116 mm., width .117 mm.; prothorax length .116 mm., width .145 mm.; mesothorax length .122 mm., width .184 mm.; metathorax length .105 mm., width .173 mm.

Segments of the antenna: length (width) I .25 (26); II, 32 (22); III, 48 with a forken sense-cone about 16 (14); IV, 48 with a fork-like sense-cone about 15 (14); V, 42 (14); VI, 51 (14); VII, 10; total length 249 μ. Length
of the spines: interocells 36 μ, on posterior margin of the prothorax, outer 44 μ, inner 32 μ; on the abdominal segment 9 97 μ, on the segment 10 87 μ; spines of the fore wings as follows: costa 22–24, on fore vein 10–12, on hind vein 10. Head large as long as wide, with large eyes occupying 2–3rds the width and almost half length of the head; cheeks arched, with several weak wrinkles and curved fine spines at the front. Praeocellars long, placed in far front of the anterior ocellus. Ocelli large, well separated and contiguous with inner margins of the eyes. Mouth-cone comparatively short, constricted at the base and gradually ending to the blunt tip. Antennae slender, 2.15 times as long as the head, segments 3 and 4 almost in a same length, segment 6 the longest, almost 5.6 times as long as wide, side evenly arched. Mesothorax larger and wider than the metathorax. Fore wings almost reaching to the posterior margin of the abdominal segment 7; hind wings little shorter than the fore wings. Abdomen normal, elongate-ovate, posterior margins of the segments 2 to 7 with a series of irregular, saw-like comb at the sides and wanting in the middle.

Male allotype. Colour: head, prothorax, abdomen and antennal segment 1 pale browish yellow, segment 2 pale yellowish gray, segments 3 to 4 uniformly colourless, transparent; 5, 6 and 7 pale brown, in basal half of the segment 5 and in basal 1–3rds of the segment 6 pale yellow.

Eyes red by a direct light, but by a transmitted light black. Crescents of the ocelli orange red. Legs uniformly pale yellow. Fore wings grayish brown towards the tip, about basal 1–3rd lighter. Prominent spines of the body and wings yellowish brown.
Total length of the body .817 mm., head length .086 mm., width .096 mm.;
prothorax length .092 mm., width .126 mm.; mesothorax length .108 mm.,
width .152 mm.; metathorax length .08 mm., width .145 mm.

Segments of the antenna: length (width) I ,22 (23); II, 29 (20); III, 44
(13); IV, 39 (13); V, 39 (15); VI, 46 (13); VII, 13; total length 232 μ. Length
of the spines: interocellars almost 12 μ, postocellars 20 μ, on the anterior angles
of the prothorax 19 μ, on the posterior angles, outer and inner subequal, 44 μ,
on the abdominal segment 9 70 μ, on segment 10 65 μ, spines of the fore
wings as follows: costa 21-22, on fore vein 10-12, on hind vein 11-12.

Head somewhat wider than long; cheeks more or less arched, with several
transverse fine wrinkles towards the posterior margin.

Interocellars placed almost directly in front of the posterior ocelli. Eyes
large, rounded, somewhat slightly protruding and occupying half the length
of the head, 2-3rds of its width; facets of the eyes large, pilose. Ocelli large,
posterior pair contiguous with inner margins of the eyes. Mouth-cone short,
rounded, reaching to the middle of the prosternum. Antennae slender, almost 3
times as long as the head, sense-cones present, but the author could not measure
even with some coloured screens.

Prothorax larger and wider than the metathorax. Wings reaching to
anterior margin of the abdominal segment 7. Abdomen subcylindrical, seg-
ment 8 the longest, with a transparent penis at the ventral base, slightly ex-
tending above from the tip of the terminal segment.

Type material; holotype, allotype (ISHIDA Nos. 1150, 1148) collected from
the flowers of *Mucuna capitata* WIGHT et ARA., on December 2, 1931, by Mr.
H. YASHIRO at Nishibara near Naha, Okinawa. Holotype in the Entomologi-

Type locality: Nishibara, near Naha, Okinawa, Japan.

This species closely related to *T. setosus* MOULTON, in which the antennal
measurement is as follows: I, 18 (27); II, 39 (24); III, 42 (18); IV, 39 (15);
V, 36 (15); VI, 48 (16); VII, 21, total length 249 μ, while in this species as
follows: I, 25 (26); II, 32 (22); III, 48 (14); IV, 48 (14); V, 42 (14); VI,
51 (14); VII, 10; total length 249 μ. (with holotype).

Moreover, it is easily distinguished from *T. setosus* in having the same width
of the segments from 3 to 7 and wanting comb along the posterior margin
of the abdominal segment 8.