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**A NEW MALAYSIAN THRIPS WITH NOTES ON SOME SPECIES OF
DENDROTHRIPOIDES AND INDUSIOTHRIPS
(THYSANOPTERA, THIRIPIDAE)**

By IWAO KUDÔ

Systematic and Ecological Surveys on Some Plant-Parasitic Microarthropods
in Southeast Asia, Scientific Report No. 15. Research Trips for Agricultural
and Forest Insects in the Subcontinent of India, Scientific Report No. 46.

Abstract

KUDÔ, I. 1992. A new Malaysian thrips with notes on some species of *Dendrothripoides* and *Indusiothrips* (Thysanoptera, Thripidae). *Ins. matsum. n. s.* 47 : 91-101, 2 tabs., 3 figs.

Isunidothrips serangga, n. gen. and n. sp., is described from Semenanjung Malaysia and Sarawak (Borneo) on the basis of both sexes. *Dendrothripoides innoxius* from Nepal, and *D. poni* and *Indusiothrips seshadrii* from Semenanjung Malaysia are recorded. Some variations in the former two species and additional diagnostic characters for the last one are also mentioned.

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Contents. Introduction — *Dendrothripoides innoxius* — *Dendrothripoides poni* — *Indusiothrips seshadrii* — *Isunidothrips* n. gen. — *I. serangga* n. sp. — Acknowledgments — References.

INTRODUCTION

In 1990 and 1991, I had the opportunities to survey Malaysian thrips in connection with the project "Systematic and ecological surveys on some plant-parasitic microarthropods in Southeast Asia" carried out jointly by Japanese and Malaysian members. The present paper is my first report on the Malaysian thrips collected under this project, dealing with a new genus, *Isunidothris*, for the reception of *serangga* n. sp., and several species of the related genera *Dendrothripoides* and *Indusiothrips*. Part of the material used in this paper was collected under another project, "Research trips for agricultural and forest insects in the Subcontinent of India."

About half the specimens of Malaysian species mentioned in this paper, including the holotype of the new species, will be deposited in Institut Penyelidikan Perhutanan Malaysia (= Forest Research Institute of Malaysia, or FRIM), Kepong, Selangor, Malaysia. The host plants of the Malaysian material and those of the Nepalese material were identified by Mr. K.M. Kochummen, ex-Botanist, FRIM, and at the Kathumandu Herbarium, respectively. The abbreviations used in the following lines are as in my previous paper (Kudô 1984).

DESCRIPTIONS AND RECORDS

Dendrothripoides innoxius

Euthrips innoxius Karny in Karny & Docters van Leeuwen-Reijnvaan 1914 : 359-360.

Dendrothripoides innoxius, Bhatti 1978 : 10-12.

Dendrothripoides ipomeae Bagnall 1923 : 624-625.

Dendrothripoides ipomoeae (sic), Wilson 1975 : 103-104 ; Kudô 1977 : 495-496.

D. innoxius, widely distributed in the tropics except for Africa, is now newly recorded from Nepal. It differs from the congeners in having longer A_7 , thick antennal segments (Fig. 1.1), short PAS on the pronotum, and stout median setae on T_6 and T_7 as well as on T_8 . Variations of some quantitative characters are given in Table 1.

The species appears to be highly variable. Kudô (1977) and Bhatti (1978) reported variations in color of T_1 and metathorax and in the shape of the abdominal tergal setae. Some other variations are noted here. The mesosternum has no spinula in all the Nepalese specimens examined (Fig. 1.2), but this organ is well represented in some specimens from Southeast Asia. This variation is seen in *D. poni*, too. The absence of the mesothoracic spinula has so far been adopted as a diagnostic character of the genus *Dendrothripoides*. However, it is merely an intraspecific variation. The abdominal sternal glandular areas of the male are also variable in shape and number. So far as known, these areas occur on S_3 - S_7 and are small (L 4-5 μm , W 11-26 μm) in males from India (Fig. 1.4), while in the Nepalese specimens examined they are quite conspicuous (L 6 μm , W 42-60 μm) and, in one specimen, even divided medially into two pieces on S_3 (Fig. 1.3). Philippine males have moderately developed ones (L 6 μm , W 18-29 μm) on S_4 - S_7 (Fig. 1.5).

Specimens examined. Nepal — Janakpur : Suri Dhoban (1,100 m), 30 ♀ 10 ♂

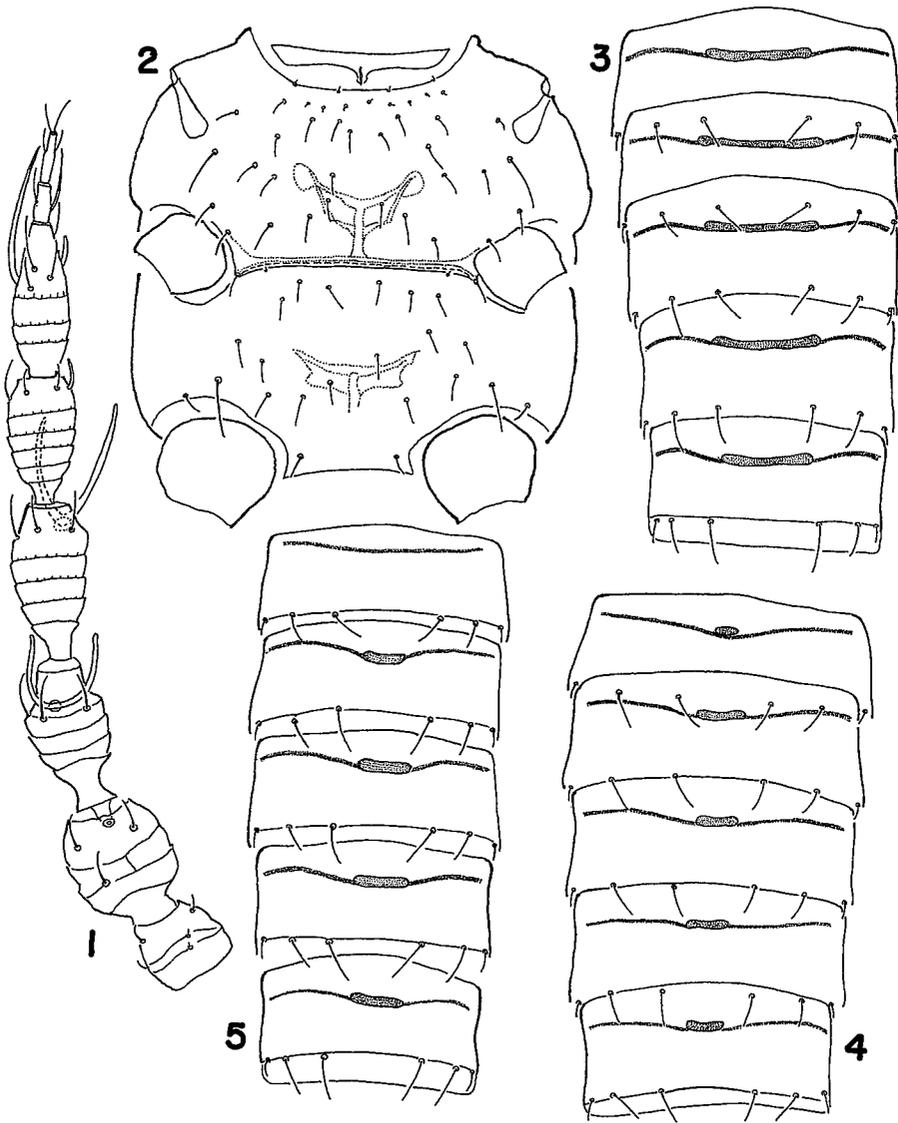


Fig. 1. *Dendrothripoides innoxius*. 1. ♀, antenna. 2. ♀, meso- and metasternum. 3-5. ♂, variation in glandular areas on S₃-S₇; 3, from Nepal; 4, from India; 5, from the Philippines.

(*Dioscorea* sp., Dioscoreaceae), VIII. 28. 1983. Semenanjung Malaysia — Terengganu: Dungun, 1 ♀ (*Saccharum officinarum*, Gramineae), VIII. 10. 1990; Pahang: Kuantan, 3 ♀ (dead plants), VIII. 13. 1990. The Philippines — Luzon: Manila, 4 ♀ 2 ♂ (grass & dry vines), II. 16-18. 1974; San Pablo, 3 ♀ 1 ♂ (grass), II. 20. 1974.

Table 1. Quantitative characters of *Dendrothripoides innoxius* in Nepal, mean±S.D.

| Characters | Female | | Male | |
|--|------------|----|------------|----|
| | Mean±S.D. | n | Mean±S.D. | n |
| Head W/L | 1.39±0.06 | 17 | 1.39±0.05 | 7 |
| IOD/HOW | 1.30±0.12 | 20 | 1.30±0.12 | 10 |
| OOD/IOD | 3.85±0.24 | 17 | 4.13±0.35 | 7 |
| A ₂ L/W | 1.00±0.03 | 17 | 1.04±0.04 | 7 |
| A ₃ L/W | 2.16±0.08 | 17 | 2.16±0.08 | 7 |
| A ₄ L/W | 2.14±0.13 | 17 | 2.07±0.15 | 7 |
| A ₅ L/W | 2.08±0.13 | 17 | 2.05±0.09 | 7 |
| A ₆ L/W | 2.67±0.19 | 17 | 2.63±0.06 | 7 |
| A ₇ L/W | 1.94±0.21 | 17 | 1.83±0.29 | 7 |
| A ₈ L/W | 3.43±0.47 | 17 | 3.30±0.31 | 7 |
| A ₈ L/A ₇ L | 1.47±0.12 | 20 | 1.45±0.15 | 7 |
| Pronotum W/L | 1.30±0.05 | 17 | 1.28±0.01 | 7 |
| No. of pronotal setae | 54.1 ±2.2 | 17 | 52.8 ±1.7 | 6 |
| No. of mesosternal setae | 38.3 ±2.8 | 12 | 37.0 ±1.2 | 4 |
| No. of metasternal setae | 21.4 ±1.3 | 17 | 21.6 ±0.9 | 5 |
| Metascutal median setae L/Distance between them | 1.46±0.45 | 19 | 1.40±0.27 | 8 |
| Fore wing L/W | 22.28±1.00 | 15 | 21.33±0.52 | 3 |
| No. of costal setae on fore wing | 19.3 ±1.5 | 23 | 18.5 ±0.8 | 6 |
| No. of fore veinal setae on fore wing | 11.0 ±0.4 | 21 | 11.0 ±0.6 | 6 |
| No. of hind veinal setae on fore wing | 3.8 ±0.4 | 21 | 4.0 ±0.0 | 7 |
| No. of anterior FH on fore wing | 16.4 ±1.4 | 18 | 16.3 ±1.0 | 6 |
| No. of posterior FH on fore wing | 49.9 ±3.6 | 14 | 46.0 ±2.5 | 6 |
| No. of FH on hind wing | 47.1 ±3.4 | 21 | 45.4 ±2.0 | 8 |
| T ₈ B ₁ /Distance between them | 0.69±0.05 | 17 | 0.67±0.06 | 7 |
| T ₈ B ₂ /Distance between them | 0.86±0.04 | 17 | 0.78±0.04 | 7 |
| T ₁₀ L/T ₉ L | 2.38±0.13 | 17 | | |
| T ₉ B ₁ /T ₉ L | 1.75±0.13 | 21 | 0.21±0.01 | 7 |
| T ₉ B ₂ /T ₉ L | 1.97±0.18 | 18 | 0.72±0.04 | 7 |
| T ₉ B ₃ /T ₉ L | 1.39±0.06 | 18 | | |
| Middorsal setae/T ₉ L | | | 0.32±0.06 | 6 |
| T ₁₀ B ₁ /T ₁₀ L | 0.76±0.05 | 19 | | |
| T ₁₀ B ₂ /T ₁₀ L | 0.78±0.03 | 18 | | |
| Ovipositor L/Pronotum L | 1.56±0.06 | 17 | | |

Dendrothripoides poni

Kudô 1977 : 497-498.

This species was originally described on the basis of a single female from Ko Phuket, Thailand. A redescription is given below for both sexes from Malaysia.

♀. Entirely yellow ; abdomen dull golden yellow, segment X brown ; major

setae on abdominal segments IX and X dark brown. Fore wing pale, with a brown patch at subbase and a brown band at middle. Antenna yellow; A_4 slightly brownish apically, apical half of A_6 and entire segments of A_7 and A_8 brown.

Head (Fig. 2.1) W/L 1.55-1.70; irregularly reticulate between eyes; occiput with 3-4 transverse striae; AOS thick; IOS, POS B_1 and POS B_3 thin, subequal in length, POS B_2 minute; IOD/HOW 1.20-1.40; OOD/IOD 3.43-3.62; mouth cone long, reaching onto mesosternum. Antenna (Fig. 2.2) 2.9-3.1 as long as head; A_3 - A_8 L/W 2.44-2.78, 2.33-2.50, 2.12-2.25, 2.63-2.93, 1.17-1.33 and 3.00-3.20, respectively; A_3 longest; A_6 shortly but distinctly pedicellate; A_8 2.00-2.29 as long as A_7 ; A_4 - A_6 with weak microtrichia (erroneously stated as " A_3 - A_6 " in the original description).

Pronotum (Fig. 2.1) W/L 1.18-1.24; with transverse anastomosing striae in

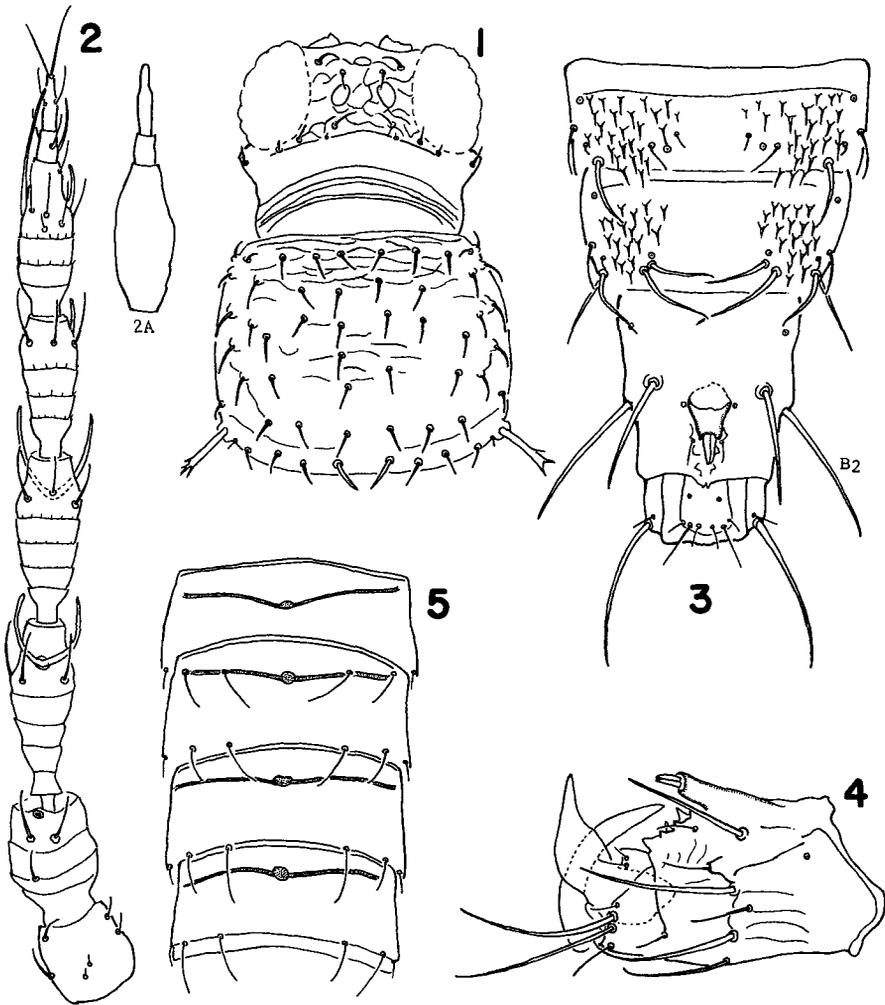


Fig. 2. *Dendrothripoides poni*. 1. ♀, head and pronotum. 2. ♀, antenna, A, outline of A_6 - A_8 in *D. venustus*. 3. ♂, T_7 - T_{10} . 4. ♂, abdominal segments IX and X with genitalia, lateral view. 5. ♂, S_4 - S_7 .

anterior fourth ; with 55-58 setae in all, discal setae mostly normally thin, only some setae lanceolate ; PAS expanded apically, 0.26-0.28 as long as pronotum. Mesonotum reticulate, with anterior CPS, median setae at posterior third ; metascutum irregularly reticulate medially, with CPS at posterior third, median setae (L 16-18 μm) thick and placed at anterior fourth ; metepimeral anterior seta (L 20-22 μm) thick, slightly shorter than posterior one (22-24 μm) ; mesosternum usually with spinula, but often without it ; meso- and metasternum each with a pair of long setae (ca. 60 μm) on midlateral side ; metaspinasternum short but wide ; hind coxae spaced by four-fifths their width. Fore wing with 14-16 anterior and 45 posterior FH ; costa with 14-17 setae (including long apical seta), fore vein with 10, hind vein with 2-4. Hind wing with 42-46 FH.

Median setae on T_1 - T_7 small, B_3 thick and pointed apically ; $T_{10}L/T_9L$ 3.09-3.13 ; T_9 with 2 pairs of CPS, T_{10} with 1 pair ; B_1 - B_3 on T_9 2.17-2.33, 2.57-2.74 and 2.26-2.30 as long as T_9 , respectively ; B_1 - B_2 on T_{10} 0.60-0.63 and 0.63-0.64 as long as T_{10} , respectively. Primary setae on S_2 - S_7 at posterior margin ; setae on S_7 much longer than those on anterior sterna ; B_2 on S_7 as long as S_7 and 1.5-1.7 as long as B_1 ; ovipositor 2.23-2.28 as long as pronotum.

Measurements (μm). Body L 1.1 mm. Head L 76-85, W 129-134 ; pronotum L 128-130, W 154-161 ; PAS 34-36 ; T_9 L 46 ; T_{10} L 142-144 ; B_1 - B_2 on T_8 42-43 and 58-62 ; B_1 - B_3 on T_9 100-107, 118-126 and 104-106, respectively ; B_1 - B_2 on T_{10} 86-90 and 90-92 ; ovipositor L 285-296. Antenna 234-245 in total L ; L(W) of antennal segments as follows : A_1 20-22 (22), A_2 28 (26), A_3 44-50 (18), A_4 42-45 (18), A_5 36 (16-17), A_6 41-42 (14-16), A_7 7-8 (6), and A_8 15-16 (5).

♂. Colored as in female. Head L/W 1.59-1.69 ; IOD/HOW 1.20-1.63 ; OOD/IOD 2.77-3.33. A_3 - A_8 L/W 2.41-2.71, 2.00-2.50, 1.75-2.19, 2.13-2.71, 1.20-1.60 and 3.00-3.75, respectively ; A_8 1.88-2.17 as long as A_7 . Pronotum W/L 1.12-1.24 ; with 54-58 setae in all ; setae lanceolate in 1 specimen, mostly thin in 4 specimens ; PAS (28-34 μm) 0.24-0.29 as long as pronotum. Fore wing L/W 18.7 ; with 13-16 anterior and 44 posterior FH ; costa with 14-15 setae, fore vein with 10-11, hind vein with 3-4. Hind wing with 39-41 FH. T_9 (Figs. 2.3, 2.4) with 2 short thorn-like setae (16-18 μm) close together on an elevation (16-20 μm) ; middorsal setae on T_9 pointed apically and long (61-70 μm), B_2 (midlateral setae) 80-86 μm long. S_4 - S_7 (Fig. 2.5) each with a small circular glandular area, L 4-8 μm , W 4-12 μm . Genitalia dark brown ; aedeagus short and thick, subequal to paramer in length ; paramer broad. Body L 0.9 mm.

Specimens examined. Semenanjung Malaysia — Johor : Kota Tinggi : Desaru, 3♀5♂ (*Callicarpa longifolia*, Verbenaceae), VIII. 18. 1990.

Remarks. On the basis of the holotype, which alone was available when the species was described, the occurrence of lanceolate setae on the pronotum was taken as a diagnostic character of the species. In the Malaysian specimens examined, however, the pronotal setae vary from the normally thin to the lanceolate type. Individuals with thin pronotal setae almost look like the South African *D. venustus* except for the color pattern of the fore wing. Differences between the two species are summarized as follows.

| <i>D. poni</i> | <i>D. venustus</i> |
|--|--|
| Fore wing with a brown subbasal patch and a brown median band. | Largely brown, pale basally and apically. |
| A_6 shortly but clearly pedicellate. | Not pedicellate, only narrowed basally (Fig. 2.2A). |
| Median setae on metascutum shorter (16-18 μm). | Longer (24 μm). |
| Anterior seta on metepimeron shorter (20-22 μm) than posterior one (22-24 μm). | Anterior seta longer (26 μm) than posterior one (22 μm). |
| A pair of midlateral setae on meso- and metasternum longer (60 μm). | Shorter (40 μm). |
| No. of FH on hind wing 42-46. | 58-59. |
| Major setae on T_9 2.2-2.7 as long as T_9 . | 2.9-3.3. |
| Major setae on T_{10} about 0.6 as long as T_{10} . | About 0.8. |
| Ovipositor about 2.2 as long as pronotum. | About 1.6. |
| Glandular areas of male small and circular on S_4 - S_7 . | Small and transverse on S_3 - S_7 . |

Indusiothrips seshadrii

Priesner 1952: 183-185; Wilson 1975: 171-172.

This species has so far been known only from Tamil Nadu, India, but its distribution now extends to Semenanjung Malaysia. Some additional diagnostic characters are given below.

Head with 1 pair of AOS and 5 pairs of POS. Mesonotum with anterior CPS, median setae far ahead of posterior margin; metascutum without CPS, median setae placed at about middle; hind coxae close together, separated from each other by fourth their width. Abdomen without flange at posterior margins of terga and sterna; all setae on T_1 - T_7 placed in front of posterior margin; median CPS on T_2 - T_8 slightly anterior to median setae; $T_{10}L/T_9L$ about 1.2; B_1 - B_3 on T_9 about 1.1, 0.8 and 0.7 as long as T_9 , respectively, B_3 thin. All primary setae on S_2 - S_7 small, L about 10 μm ; 3 pairs of primary setae on S_7 placed by their length from posterior margin; ovipositor about 2.0 as long as pronotum.

Specimen examined. Semenanjung Malaysia — Selangor: Templer Park, 1♀ (dry leaf), II. 10. 1974.

Isumidothrips n. gen.

Type-species: *Isumidothrips serangga* n. sp.

Head wider than long, concave posteriorly, strongly constricted behind eye; with 1 pair of AOS and 6 pairs of POS; mouth cone thin, moderately long; maxillary palpus long, 3-segmented. Antenna 8-segmented; A_2 with dorsal median seta; A_3 and A_4 with forked sense cone; A_3 - A_6 with distinct microtrichia.

Prothorax with 2 pairs of PAS; profurcasternum entire; mesosternum alone with spinula; mesopleurosternal suture absent; mesospinasternum broad; metepisternum without setae; metaspinasternum short and narrow; hind coxae close together. Fore wing narrow, entirely covered with microtrichia; veinal setae distinct; fore veinal setae broadly interrupted medially; scale with 5 anal setae and

1 discal seta ; posterior FH wavy. Tarsi 2-segmented.

Abdominal terga polygonally reticulate ; with distinct microtrichia on lateral third ; without ctenidia ; tergal setae B₃ and B₆ marginal ; T₈ without comb ; major setae on T₉ and T₁₀ stout and pointed apically ; T₁₀ completely divided longitudinally ; terga with a short flange at posterior margin but sterna without it ; laterotergum and pleurosternum undivided. Male with a pair of thorn-like setae on T₉, without sternal glandular areas.

Remarks. This genus is characterized by the reticulate head and abdominal terga, by the head strongly constricted behind eye, by the narrow fore wing, by the absence of mesothoracic pleurosternal suture, by the undivided abdominal pleuron, by the elongate abdominal segment X, and by stout setae on T₉ and T₁₀. In these characters *Isunidothrips* is closely related to the Oriental genera *Dendrothripoides* and *Indusiothrips*. However, it differs from *Indusiothrips* in having 2 pairs of PAS, in the abdominal terga with distinct microtrichia and a posteromarginal flange, in the tergal setae B₃ and B₆ marginal, and in the apically pointed major setae on T₉ of the female. It differs from *Dendrothripoides* by the following characters : presence of 2 pairs of PAS on the pronotum ; distinct microtrichia on A₃-A₆ ; the metaspinasternum is so short and narrow that the hind coxae are set close together ; the fore wing with distinct veinal setae and entirely covered with microtrichia ; normally small microtrichia on the abdominal terga ; and the abdominal sterna without a posteromarginal flange.

Isunidothrips serangga n. sp.

♀. Almost entirely yellow ; head dark in anterior half ; eye dark red ; abdominal segment X slightly brownish ; major setae on T₉ and T₁₀ dark yellow. Fore wing gray in about basal sixth and in median and apical fifths, pale in subbasal and subapical fifths ; scale gray. Hind wing with vein dark, but pale at basal and median sixths. A₁-A₃, basal third of A₄ and basal half of A₅ yellow ; the rest dark grayish brown, apical half of A₅ and of A₃ paler.

Head (Fig. 3.1) W/L 1.41-1.63 ; irregularly reticulate between eyes ; occipital area with 3-4 transverse striae ; AOS situated near to eye laterad of fore ocellus ; IOS between fore and hind ocelli within ocellar triangle ; AOS and POS B₁ subequal (L ca. 18-20 μm), longer than IOS ; POS B₁ close to eye, POS B₂-B₄ minute and along occipital ridge ; IOD/HOW 0.93-1.33 ; OOD/IOD 2.50-3.54 ; mouth cone narrow, moderately long to long but not reaching onto mesosternum. Antenna (Fig. 3.2) 2.7-3.1 as long as head ; A₂ L/W 1.28-1.42 ; A₃ L/W 2.32-2.78, equal to A₄ in length ; A₄ L/W 2.26-2.89 ; A₅ L/W 2.29-2.59, constricted at basal third, then bulged subbasally, shortly but distinctly pedicellate ; A₆ L/W 2.86-3.31, constricted subbasally, subequal to A₅ in length, inner sense cone arising from middle of the segment and nearly reaching apex of A₈ ; A₇ L/W 1.20-1.60 ; A₈ L/W 3.20-4.00, 1.88-2.50 as long as A₇ ; A₃-A₆ with 5, 5, 6, 8 setae, respectively ; A₃ with 4-5 dorsal and 3-4 ventral rows of microtrichia, A₄ with 4 dorsal and 3 ventral rows, A₅ and A₆ with 3 rows.

Pronotum (Fig. 3.1) W/L 1.21-1.32, entirely unsculptured except for 1-2 transverse striae along anterior margin ; with 54-62 setae in all ; PMS in 3 pairs ; inner PAS 0.17-0.22 and outer PAS 0.27-0.31 as long as pronotum. Mesoscutum (Fig. 3.3)

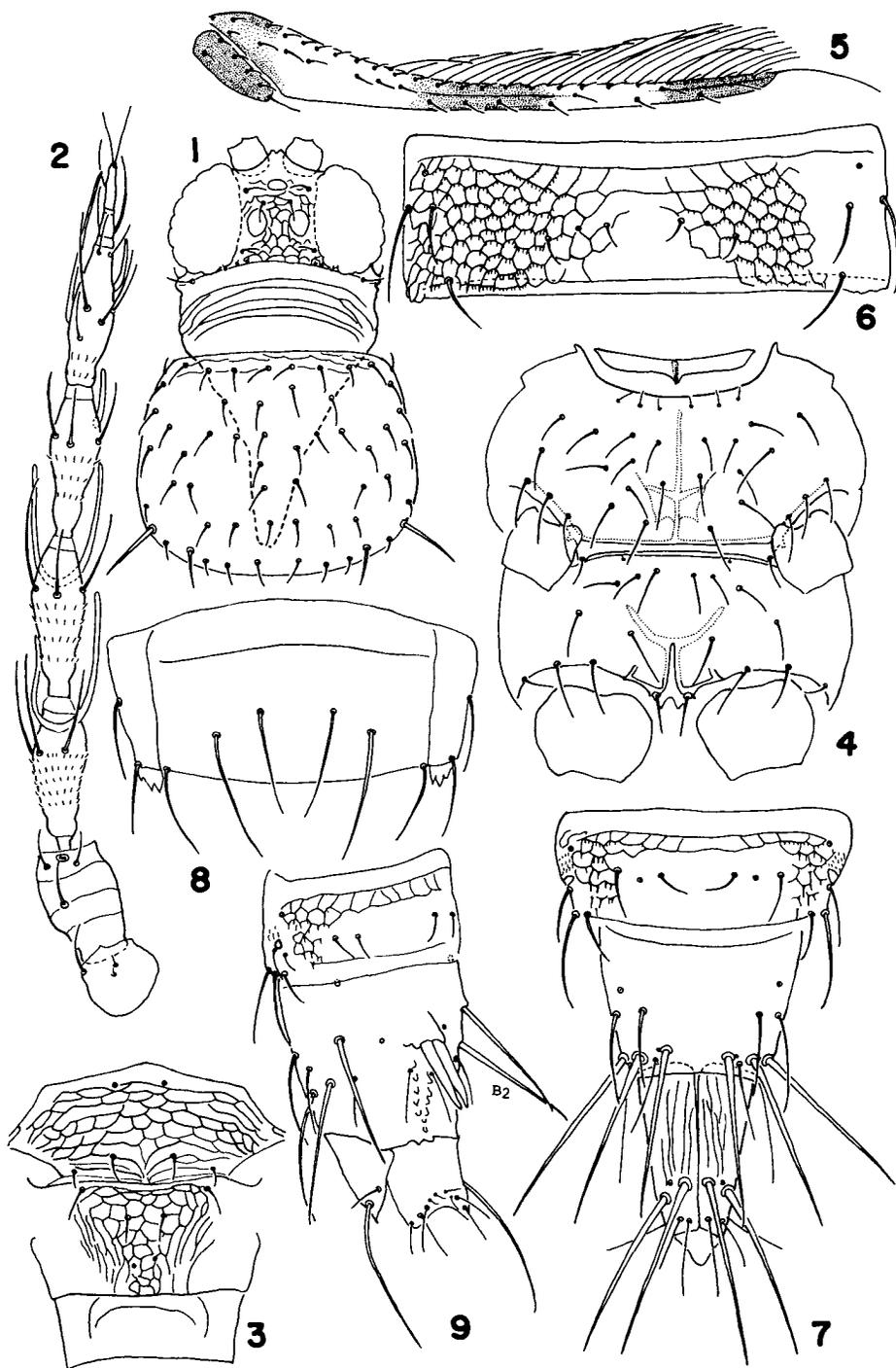


Fig. 3. *Isunidothrips serangga*. 1. ♀, head and pronotum. 2. ♀, antenna. 3. ♀, meso- and metanotum. 4. ♀, meso- and metasternum. 5. ♀, fore wing. 6. ♀, T₅. 7. ♀, T₈-T₁₀. 8. ♀, S₇. 9. ♂, abdominal segments VIII-X, dorsal view.

Table 2. Quantitative characters in females of *Isunidothrips serangga*, mean \pm S.D.

| Characters | Mean \pm S.D. | n | Characters | Mean \pm S.D. | n |
|-----------------------------------|-----------------|----|---|------------------|----|
| Head W/L | 1.52 \pm 0.08 | 14 | No. of metasternal setae | 20.6 \pm 0.8 | 13 |
| IOD/HOW | 1.12 \pm 0.11 | 14 | Fore wing L/W | 21.84 \pm 1.03 | 9 |
| OOD/IOD | 2.88 \pm 0.33 | 14 | No. of costal setae on fore wing | 24.3 \pm 1.4 | 25 |
| A ₃ L/W | 2.47 \pm 0.15 | 14 | No. of fore veinal setae on fore wing | 10.0 \pm 0.3 | 26 |
| A ₄ L/W | 2.46 \pm 0.17 | 14 | No. of hind veinal setae on fore wing | 5.6 \pm 0.5 | 26 |
| A ₅ L/W | 2.41 \pm 0.10 | 14 | No. of anterior FH on fore wing | 22.4 \pm 1.6 | 24 |
| A ₆ L/W | 3.05 \pm 0.13 | 14 | No. of posterior FH on fore wing | 52.9 \pm 2.3 | 9 |
| A ₇ L/W | 1.42 \pm 0.15 | 14 | No. of FH on hind wing | 59.2 \pm 1.9 | 13 |
| A ₈ L/W | 3.66 \pm 0.19 | 14 | T ₁₀ L/T ₉ L | 1.31 \pm 0.05 | 14 |
| A ₈ L/A ₇ L | 2.12 \pm 0.19 | 14 | T ₉ B ₁ /T ₉ L | 1.41 \pm 0.10 | 17 |
| Pronotum W/L | 1.27 \pm 0.03 | 14 | T ₉ B ₂ /T ₉ L | 1.49 \pm 0.10 | 17 |
| No. of pronotal setae | 59.6 \pm 2.5 | 14 | T ₉ B ₃ /T ₉ L | 1.52 \pm 0.13 | 17 |
| Inner PAS/Pronotum L | 0.19 \pm 0.01 | 15 | T ₁₀ B ₁ /T ₁₀ L | 1.09 \pm 0.04 | 17 |
| Outer PAS/Pronotum L | 0.29 \pm 0.01 | 15 | T ₁₀ B ₂ /T ₁₀ L | 1.05 \pm 0.05 | 17 |
| No. of mesosternal setae | 36.0 \pm 1.4 | 5 | Ovipositor L/Pronotum L | 1.89 \pm 0.09 | 14 |

reticulate, with anterior CPS, median setae slightly anterior to outer setae; metascutum reticulate, median setae at anterior third, CPS at posterior third; mesanepimeron polygonally reticulate, with granules in reticles; metepimeral anterior seta long, 0.9-1.0 as long as outer PAS; meso- and metasternum (Fig. 3.4) with 34-38 and 20-22 setae, respectively; hind coxae separated from each other by third their width. Fore wing L/W 20.1-23.4; with 20-26 anterior and 50-56 posterior FH; costa with 21-28 setae including apical long seta, fore vein with 9-11 setae, hind vein with 5-6. Hind wing with 56-62 FH.

Abdominal T₁ with transversely anastomosing striae except on posteromedian area, median setae at anterior fifth, median CPS close to posterior margin; T₂-T₇ (Fig. 3.6) polygonally reticulate except between median setae, reticles with some microtrichia on their posterior lines of sculpture, microtrichia becoming slightly stouter on posterior segments; median tergal setae small; median CPS on T₂-T₈ placed at the level of B₁ between B₁ and B₂; T₈ (Fig. 3.7) without comb, weakly reticulate laterad of B₂, with 2-3 microtrichia rows anteriorly to spiracle; T₉ unsculptured, with 2 pairs of CPS; T₁₀ with a pair of CPS and some longitudinal striae; T₁₀L/T₉L 1.24-1.40; B₁-B₃ on T₉ 1.24-1.59, 1.31-1.72 and 1.31-1.78 as long as T₉, respectively; B₁-B₂ on T₁₀ 1.04-1.16 and 0.94-1.13 as long as T₁₀. S₂ with 2 pairs of primary setae and weak and transversely anastomosing striae; S₃-S₇ unsculptured; sternal setae long, those on S₂-S₆ 0.5-0.8 as long as respective segment, B₂ mostly longest; B₁ and B₂ on S₇ (Fig. 3.8) far ahead of posterior margin, B₁ anterior to B₂, B₁ (L ca. 65-75 μ m) and B₂ (ca. 75-85 μ m) 0.7-0.9 as long as S₇, B₃ (ca. 55-65 μ m) shortest; ovipositor 1.77-2.09 as long as pronotum.

Measurements (μ m). Body L 1.1-1.3 mm. Head L 80-95, W 128-136; pronotum L 128-140, W 155-180; inner PAS 22-29, outer PAS 36-42; metepimeral anterior seta 32-40; fore wing L 519-598, W 24-28; T₉ L 64-85; T₁₀ L 82-108; B₁-B₃ on T₉ 94-112, 104-118 and 104-120, respectively; B₁-B₂ on T₁₀ 98-116 and 90-108;

ovipositor L 232-292. Antenna 239-268 in total L ; L(W) of antennal segments as follows : A₁ 18-20 (22-24), A₂ 32-35 (24-25), A₃ 42-52 (18-19), A₄ 43-52 (18-19), A₅ 38-44 (16-17), A₆ 40-44 (13-14), A₇ 6-8 (5), and A₈ 14-16 (4).

♂. Colored as in female. Head W/L 1.47 ; IOD/HOW 1.00-1.08. A₂-A₈ L/W 1.27, 2.33, 2.50, 2.50, 3.00, 1.40 and 3.50, respectively ; A₈ 2.00 as long as A₇. Pronotum W/L 1.20, with 57 setae ; inner PAS 0.22 and outer PAS 0.28 as long as pronotum ; metepimeral anterior seta 30 μm long ; metasternum with 21 setae. Fore wing with 22-23 anterior and 51-53 posterior FH ; costa with 21-22 setae, fore vein with 10, hind vein with 5. Hind wing with 57 (?) FH. T₉ (Fig. 3.9) with a pair of thorn-like setae (L 48 μm) arising from an elevation, middorsal seta 84 μm long and B₂ (posterolateral seta) 88 μm ; sternal glandular areas absent ; primary setae on S₂-S₈ at posterior margin. Body L 1.0 mm.

Specimens examined. Semenanjung Malaysia — Selangor : Kuala Lumpur : Kepong, holotype (♀) & 9 ♀ (*Oxyspora* sp., Melastomataceae), X. 30. 1991, 1 ♀ (*Bridelia tomentosa*, Euphorbiaceae), XI. 3. 1991, 1 ♀ (*Hyptis capitata*, Labiatae), VIII. 7. 1990. Sarawak — Lundu : Gunong Gading, 2 ♀ 1 ♂ (*Derris* sp., Leguminosae), X. 19. 1991.

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