

## TWO NEW SPECIES OF THIRIPIDAE (THYSANOPTERA) FROM TAIWAN

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**Abstract:** Two new species *Hydatothrips liquidambara* and *Sorghothrips meishanensis* are described and illustrated. They were collected on *Liquidambar formosana* and *Zea mays* respectively.

*Hydatothrips* was erected by Karny in 1912 and was treated as a synonym of *Sericothrips* by Priesner in 1949. Bhatti rearranged *Hydatothrips* as a valid genus with 13 species in 1973.

*Sorghothrips* was erected by Priesner in 1963 and has been represented by only three species so far. The three species are: *S. fuscus* (Ananthakrishnan) and *S. jonnaphilus* (Ramakrishna) from India and *S. longistylus* (Trybom) from Sudan.

In this paper, two species are added as new to genera *Hydatothrips* and *Sorghothrips*. The type-specimens are deposited in the collection of Plant Quarantine Division, Bureau of Commodity Inspection and Quarantine, Ministry of Economic Affairs, Taipei, Taiwan, Republic of China.

### *Hydatothrips liquidambara* n. sp.

Female (macropterous): Length (distended) 1.35 mm. Color dark brown. Antennal segments I-III yellow. IV dark brown with basal one-fourth yellow, V-VIII dark brown. Fore-wing

brown with a yellow cross band near the base. For femur pale brown with dark brown at sides, mid femur dark brown and lighter in apical part, hind femur dark brown, all tibia and tarsi yellow. Abdominal segments I-IV and VI pale brown, V yellow and darker on median part, VII-IX dark brown, X pale yellow.

Head: Length 85  $\mu$ , width 188  $\mu$ , dorsal surface with transversal striae between the eyes, and reticulation behind eyes, a subcarina just behind postocelli. Eye large, protruding, ocelli normal. Head setae all small, 2 pairs of antecellar setae, 1 pair of interocellar setate. Mouth-cone long and narrow, surpassing the prosternum. Maxillary palpi 3-segmented, slender, length of segment I to III are 30  $\mu$ , 17  $\mu$ , and 22  $\mu$  respectively. Antennae 8-segmented, arising from head's lower surface, segment I about half hidden from dorsal view by the overhanging vertex, sense-cone on segment III and IV slender and forked. Length/width of segments in  $\mu$ ; I, 22/27; II, 32/30; III, 67/20; IV, 65/17; V, 50/15; VI, 55/17; VII, 13/5; VIII, 16/4.

Prothorax: Length 125  $\mu$ , width 231  $\mu$ , with

hexagonally reticulate lines, median part with a blotch area where sculpture is formed of closer spaced striae. The blotch with 3 pairs of setae on the anterior margin, 2 pairs on the lateral side and posterior margin respectively. Meso- and Meta-notum sculptured. Metasternum with Y shaped apodeme. Leg normal, tarsi 2-seg-

mented. Fore-wing (Fig. 1) narrow, length  $860 \mu$ , width  $34 \mu$  at middle, costa with 32 setae, upper vein with 27-30 setae in even set, lower vein with 1 or 2 (only one wing) setae. Scale with 4-5 setae at anterior margin, and 1 seta near base at middle.

Abdominal tergites I-VIII (Fig. 2) with dense

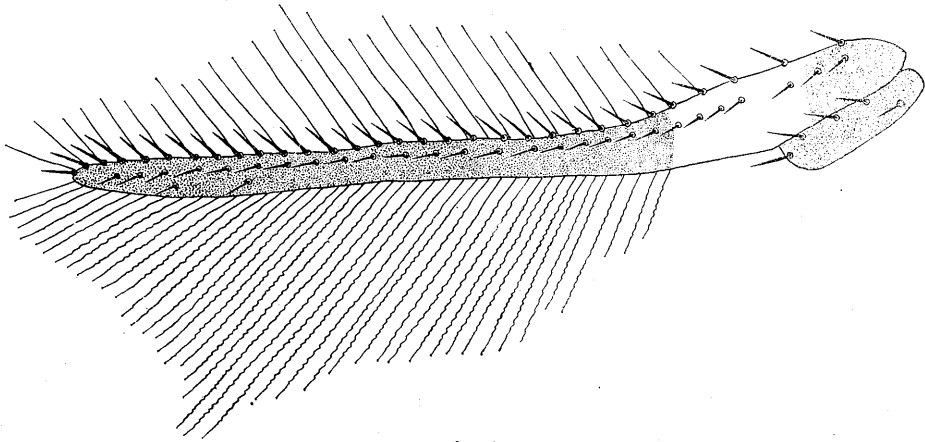


Fig. 1

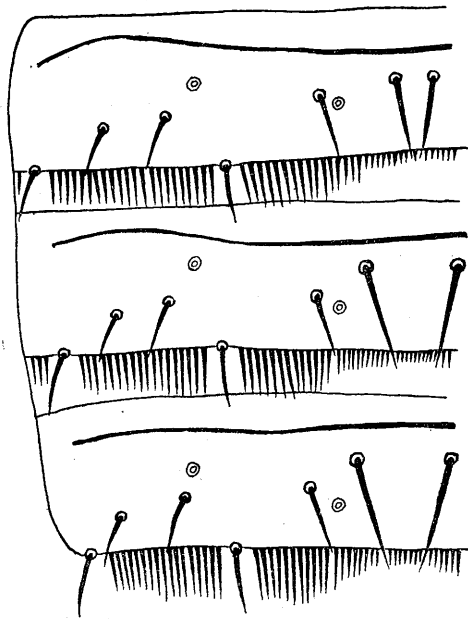


Fig. 2

Fig. 1-2. *Hydatothrips liquidambar*: 1. Left Fore-wing; 2. Abdominal Tergites IV-VI, Left Half (microtrichia omitted).

rows of microtrichia, except in the mid part of I-V where the microtrichia only between and ahead of median setae; I-IV with median pairs of the setae more closer than from the submedian pair, the former also longer than the latter; setae  $S_3$  on IV-VI inserted marginally and with 3 setae on lateral of this, the last of these agian marginal; II-VI medially with weak comb along posterior margin; XI with 8 pairs of long setae; X with 2 pairs of major setae. Abdominal sternites III-VII with microtrichia medially; II-VII with 3 pairs of primary setae, without accessory setae; II-VI with a complete comb along posterior margin.

Male: Unknown.

Distribution: Taiwan.

Holotype: ♀, IX 18, 1975, Fenchifu, Chia-I Hsien on *Liquidambar formosana*, (L. S. Chen, leg.). Paratype: 1 ♀, same data as for holotype.

This new species is most related to *abdominalis*, but it can be distinguished by having 1 or 2 seta on lower vein of fore-wing and weak comb along mid posterior margin of abdominal tergites II-VI.

#### *Sorghothrips meishanensis* n. sp.

Female (macropterous): Length (distended) 1.42 mm. Color dark brown. Antennal segments I-II and VI-VII dark brown, III-V pale yellow. Fore-wing pale yellow on basal one-fourth and brown on distal three-fourths. Lngs pale yellow. Abdominal segments I-V pale yellow, VI-X dark brown.

Head (Fig. 3): Produced in front. Length (including process)  $185 \mu$ , width  $175 \mu$ , dorsal surface with transverse lines behind eyes. Interocellar setae  $55 \mu$  almost as long as the major postocular, 2 pairs of antecellar setae, inner one  $27 \mu$ , outer one  $30 \mu$ . Mouth cone rounded, reaching at the middle of prosternum. Maxillary palp 3-segmented, length of segments I-III are  $16 \mu$ ,  $10 \mu$ ,  $16 \mu$ , respectively. Labial palp 1-segmented,  $14 \mu$ , long. Antenna (Fig. 4) 7-segmented, segment III normal, IV bottle shaped, sense cones on segments III and IV forked.

Length/width of segments in  $\mu$ : I, 30/37; II, 38/25; III, 45/21; IV, 50/18; V, 42/15; VI, 56/17; VII, 37/7.

Prothorax (Fig. 3): Length  $145 \mu$ , width  $187 \mu$ , with transverse lines faintly on the anterior and posterior margin. Two pairs of major setae on posterior angle, outer one  $56 \mu$ , inner one  $71 \mu$ . Posteromarginal 4 pairs between the major setae. Mesonotum entirely cross-striated. Metanotum sculptured only on anterior and lateral areas. Legs normal, fore tibia with 1 strong seta at apex, hind tibia with 7 strong setae on inner margin. Forewing ensiform, length  $811 \mu$ , width  $42 \mu$  at middle, costa with 25 setae, upper vein with 17 setae, lower vein with 12 setae.

Abdominal tergites I-VIII with transverse lines entirely and with a median pair of small setae ahead of median pore, median pore near the posterior margin; II-VII with crenulate postmarginal flange; VIII without comb; IX with 2 pairs of discal pores and 3 pairs of major setae; mediodorsal one  $41 \mu$ , inner  $135 \mu$  and outer  $161 \mu$ ; X with 2 pairs of major setae, inner one  $155 \mu$ , outer one  $151 \mu$ . Abdominal sternites weakly sculptured, without accessory setae; III-VII with 3 pairs of primary setae; III-IV (Fig. 5) each with a glandular area at middle.

Male: Unknown.

Distribution: Taiwan.

Holotype: ♀, X 3, 1976, Meishan, Kaohsiung Hsien on *Zea mays*. (L. S. Chen, leg.). Paratype: 3 ♀, same data as for holotype. 1 paratype deposited in Dr. Bhatti's collection.

This new species is easily distinguished from the other species of the genus by the following key (♀).

1. Abdominal sternites III and IV each with a glandular area. Antennae 7-segmented. Fore wing shaded in distal three-fourths .....*meishanensis* Chen  
Abdominal sternites without glandular area. Antennae 7- to 8-segmented. Fore wing variable.....2

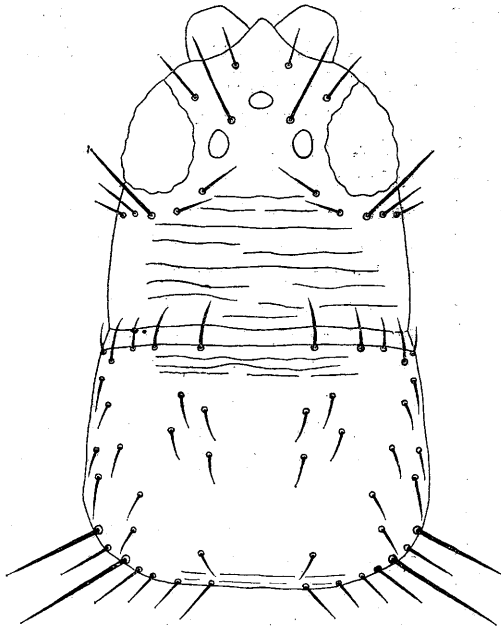


Fig. 3



Fig. 4

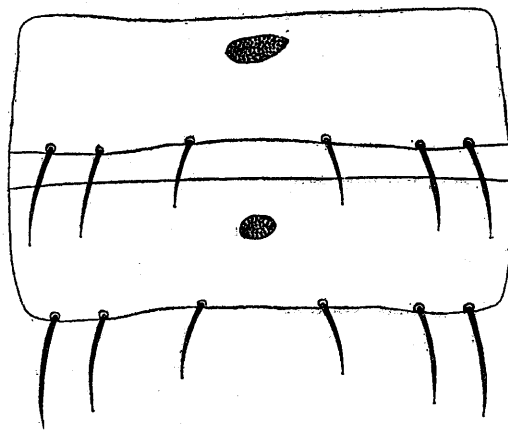


Fig. 5

Fig. 3-5. *Sorghothrips meishanensis*: 3. Head and Prothorax, dorsal view; 4. Left Antenna, dorsal view; 5. Abdominal Sternites III-IV.

2. Body yellowish brown, only abdominal segments VIII-X dark brown. Spinula absent on meso- and metasterna... *Fascus* (Anan.) Body brown to dark brown, including head, thorax and most of abdomen; only abdominal segments I-II or I-V yellow. Spinula present on mesosterna..... 3

3. Fore wing brown in distal three-fourths. Antennae 8-segmented.... *jonnaphilus* (Ram.) Fore wing weakly shaded at 2nd fourth. Antennae 7-segmented.... *longistylus* (Tryb.)

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## 臺灣薊馬之二新種

陳 連 勝

本文紀載屬於薊馬科 (Thripidae) 之二新種，*Hydatothrips liquidambara* 及 *Sorghothrips meishanensis*。

*Hydatathrips liquidambara* 在嘉義縣奮起湖之楓樹上採得，此種之主要特徵為觸角 8 節，前胸近後緣有一大塊呈多角形紋，前翅上脈剛毛自基部到末端呈等距離排列，下脈具 1~2 支剛毛，腹部背板 2~6 節中央後緣具微小剛毛及第 9 節具 8 對長剛毛。

*Sorghothrips meishanensis* 在高雄縣梅山之玉米上採得，此種之主要特徵為頭部前緣向前突起，觸角 7 節，第 4 節呈瓶狀，前翅近基部 1/4 呈灰黃色，末端 3/4 褐色，腹部 1~5 節灰黃色，6~10 節暗褐色，腹部腹板 3~4 節各具 1 腺室。

此二種之正副模式標本均保存於經濟部商品檢驗局昆蟲實驗室。