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A New Species of Tanaostigmatidae (Hymenoptera) From Taiwan 【Research report】

臺灣長痣小蜂科(膜翅目)一新種【研究報告】

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摘要

長痣小蜂科隸膜翅目小蜂總科，目前全世界已知之種類約有9種88種；該科首次記錄分佈於臺灣。本文描述 *Tanaostigmodes lini* sp. nov. 之形態特徵，並輔以性狀圖說明。

Key words: Tanaostigmatidae, Hymenoptera, taxonomy, Taiwan.

關鍵詞: 長痣小蜂科、膜翅目、分類、臺灣。

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A New Species of Tanaostigmatidae (Hymenoptera) from Taiwan

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ABSTRACT

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臺灣長痣小蜂科（膜翅目）一新種

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摘要

長痣小蜂科隸膜翅目小蜂總科，目前全世界已知之種類約有 9 屬 88 種；該科首次記錄分佈於臺灣。本文描述 *Tanaostigmodes lini* sp. nov. 之形態特徵，並輔以性狀圖說明。

關鍵詞：長痣小蜂科、膜翅目、分類、臺灣。

Introduction

The Tanaostigmatidae is a small family of Chalcidoidea, it contains about 9 genera and 88 species in the world (LaSalle, 1987; Boucek, 1988). Their biology are unusual in that most members are phytophagous rather than parasitic (LaSalle, 1987). This family is recorded from Taiwan for the first time, and a new species of the genus *Tanaostigmodes* Ashmead is described in this paper. The terminology used here follow LaSalle (1987). The specimens (including types) are deposited in the insect collection of the Taiwan Agricultural Research Institute, Taichung, Taiwan, R.O.C.

Tanaostigmodes lini sp.nov.

Female: Head: 1.2–1.4 times wider than high. Lateral ocellus (Fig. 4) nearer to median ocellus than to eye margin (OOL / LOL 1.5–1.8). Scrobal impression (Fig. 5) glabrate, not carinate laterally. Face and frons (Fig. 6) imbricate to coriaceous with some minute, setiferous punctures; frons without transverse furrow. Interantennal projection small. Subocular sulcus present. Antenna (Fig. 2) with scape 4.3–7.2 times longer than wide; pedicel 1.3–1.7 times longer than wide; A2 slightly longer and wider than A1; F1 1.0–1.3 times wider than long; each successive funicular segments slightly wider than preceding one; F6 1.1–1.6 times wider than long; club 1.5–2.6 times longer than wide.

Mesosoma: Mesoscutum (Fig. 7) imbricate to coriaceous with scattered, minute, setiferous punctures; notauli complete; scutellum (Fig. 9) faintly coriaceous, without lateral glabrate area. Propodeum (Fig. 10) largely glabrate with median carina. Mesopleuron (Fig. 8) glabrate; prepectus imbricate; sternopleural suture not reaching anterior margin of mesopleuron; mesopleural suture absent. Metacoxa (Fig. 13) imbricate; ventral

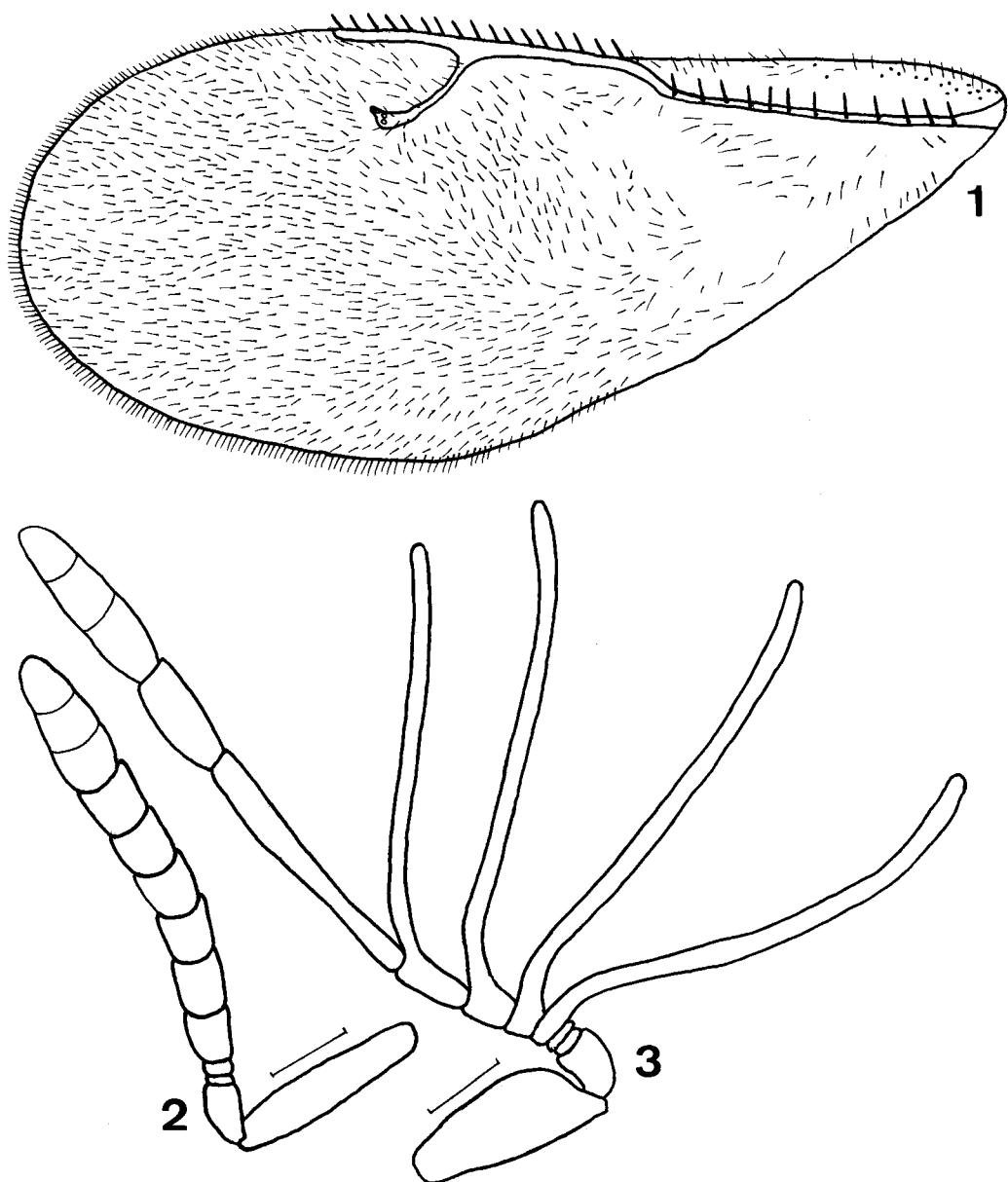
margin of metafemur (Fig. 14) with subapical denticle. Forewing (Fig. 1) with marginal fring extending to postmarginal vein; basal cell with 18–27 setae; stigmal vein distinctly curved, not distinctly swollen apically; speculum open to posterior margin, or separated by single line of setae representing subcubical vein on ventral surface. CC / MV 2.0–2.7, MV / PMV 1.0–1.4, MV / SV 1.3–2.0, PMV / SV 1.1–1.6.

Metasoma: Metasoma (Figs. 11, 12, 15, 16) lightly imbricate to coriaceous to smooth. T2 less than half length of metasoma; posterior margin (Fig. 12) of T2 with strong median incision; T2–T6 with median line.

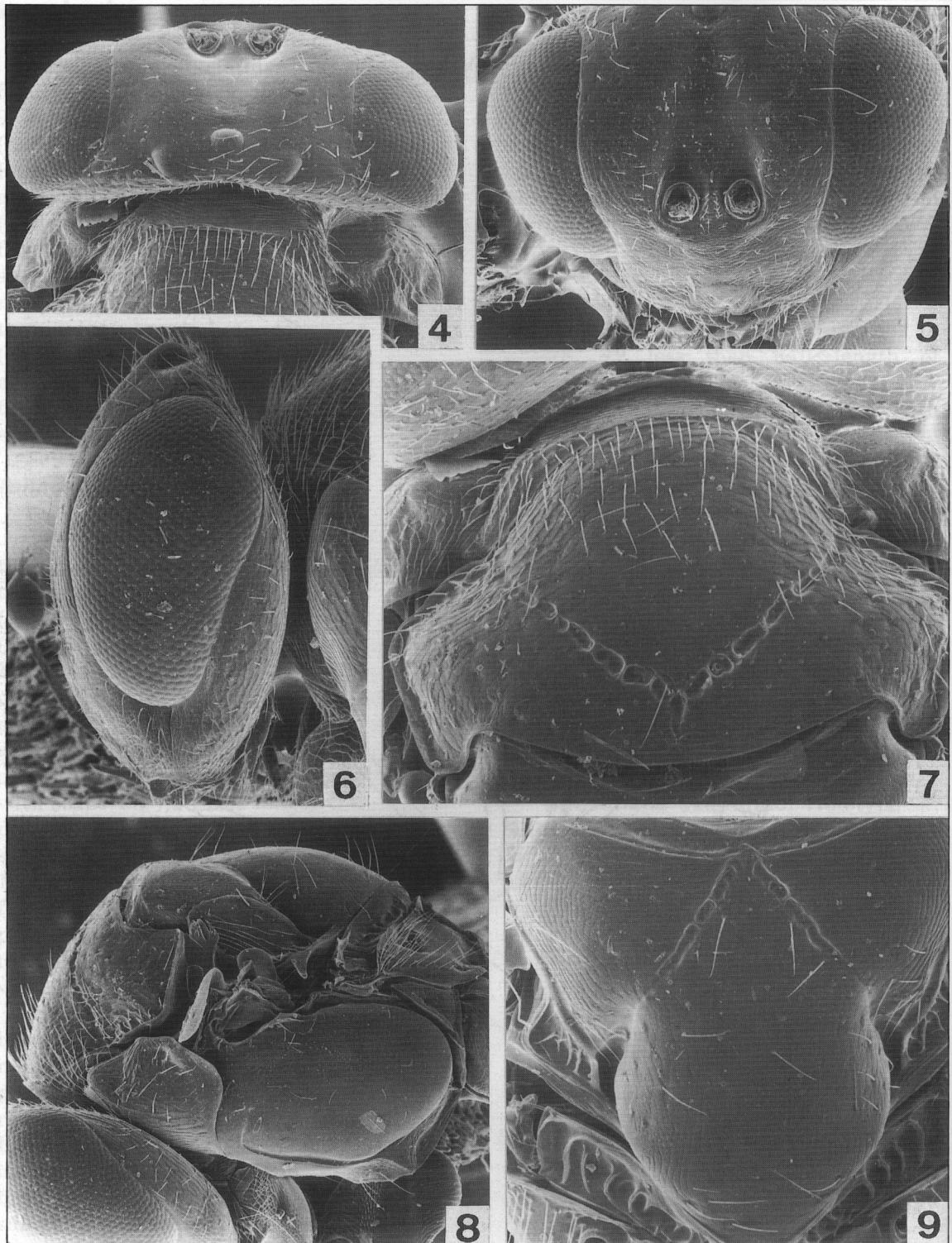
Length and color: Body length 1.3–2.3 mm. Body black. Antenna black; scape largely yellowish brown to black. Wings hyaline, veins yellow. Legs black; tibiae apically and tarsi light brownish yellow to yellowish brown.

Male: Antenna (Fig. 3) with funicular rami on F1–F4; F5 and F6 without ramus. First, second and third ramus subequal in length, fourth ramus distinctly shorter; funicular length, F1: F2: F3: F4: F5: F6 = 1: 1.3–1.5: 2.2–2.5: 3.6–5.5: 12.4–17.0: 5.0–6.5.

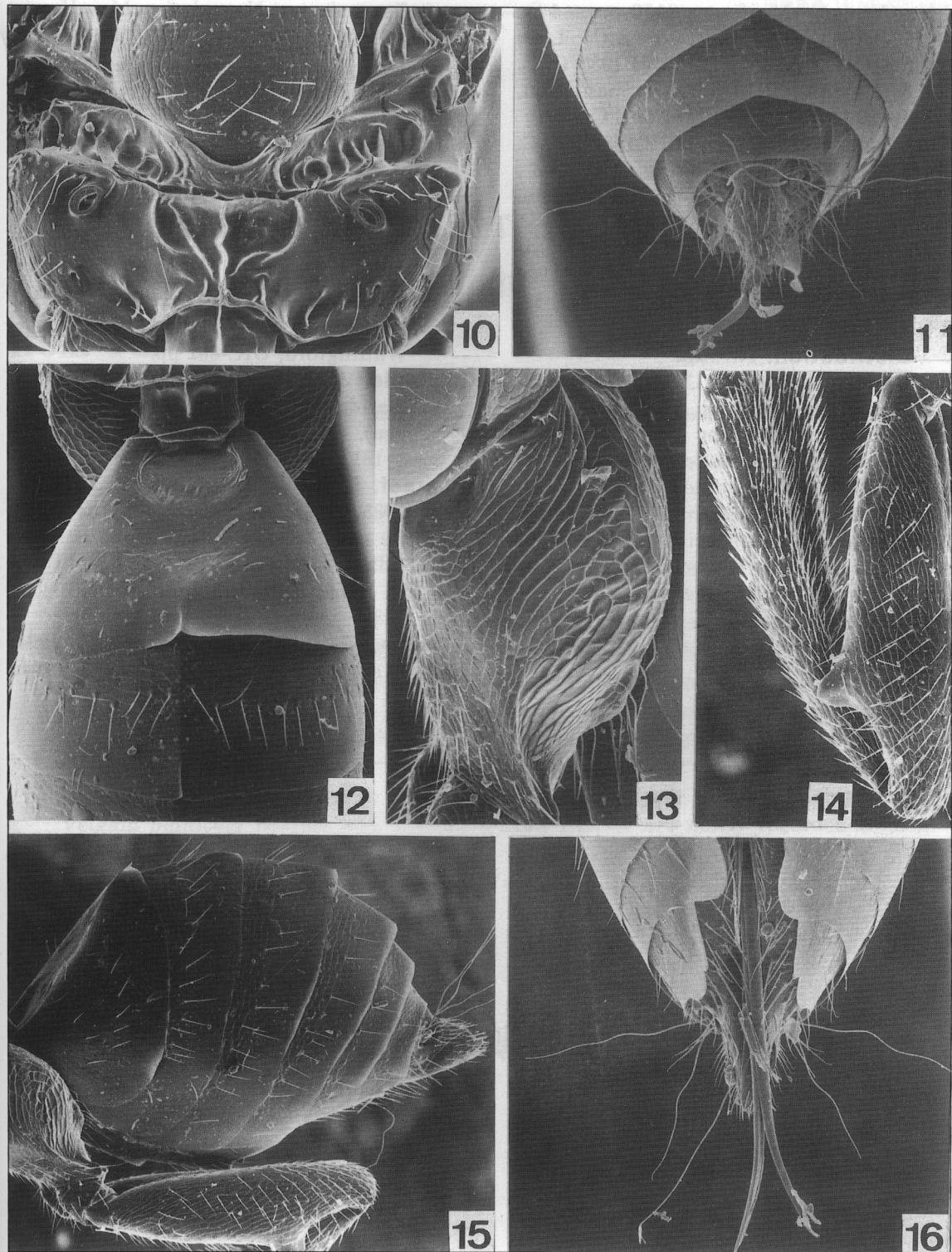
Specimens examined: Holotype ♀, NANTOU, Tungpu 1200 m, 23–27.VII.1984 (K.C. Chou & C.H. Yang). Paratypes: TAIPEI, 1♀, 3.IV.1963; 1♂, 5–6.IV.1963; 2♀, 5♂, 22–27.IV.1963; 1♂, 29–30.IV.1963; 2♀, 5♂, 3–11.V.1963; 3♀, 2♂, 13–17.V.1963; 1♂, 21–31.V.1963; & 1♀, 1.II.1965 (K.S. Lin). TAOYUAN: Paling 800 m, 3♀, 6♂, 3–5.V.1983 (K.C. Chou & C.C. Pan); Fuhsing 500 m, 1♀, 1♂, 6.V.1983 (K.C. Chou & C.C. Pan). NAN-TOU: Wushe 1150 m, 4♀, 7♂, 13.IV.1983 (K.C. Chou); 9♀, 43♂, 19–22.IV.1983 (K.C. Chou & S.P. Huang); 2♀, 9♂, 21–23.VI.1983 (K.S. Lin & S.C. Lin); 3♂, 7.V.1984 (K.C. Chou & C.C. Pan); Tungpu 1200 m, 62♀, 138♂, 20–24.VI.1983 (K.C. Chou & C.Y. Wong); 7♂, 16–20.IV.1984; & 13♀, 68♂, 23–27.VII.1984 (K.C. Chou &



Figs. 1-3. *Tanaostigmodes lini* sp. nov. 1, forewing, ♀; 2, antenna, ♀; 3, antenna, ♂ (Scale: 0.1 mm).



Figs. 4-9. *Tanaostigmodes lini* sp. nov., ♀. 4, dorsal view of head; 5, frontal view of head; 6, lateral view of head; 7, dorsal view of mesoscutum; 8, lateral view of mesosoma; 9, dorsal view of axilla and scutellum.



Figs. 10–16. *Tanaostigmodes lini* sp. nov., ♀. 10, dorsal view of metanotum and propodeum; 11, dorsal view of apical metasoma; 12, dorsal view of basal metasoma. 13, lateral view of metacoxa; 14, lateral view of metafemur; 15, lateral view of metasoma; 16, ventral view of apical metasoma.

C.H. Yang); Meifeng 2150 m, 1♀, 22–26.VI.1983 (K.S. Lin & S.C. Lin); Tsuifeng 2300 m, 2♀, 23–25.VI.1983 (K.S. Lin & S.C. Lin). PINGTUNG: Shantimen, 3♀, 16–20.I.1984 (K.C. Chou & C.C. Pan); Mutantsun, 5♀, 1♂, 14.III.1984 (K.C. Chou & C.C. Pan); Kenting, 1♀, 15♂, 15.III.1984 (K.C. Chou & C.C. Pan); Oluanpi, 2♂, 12–13.III.1984; & 1♀, 16.III.1984 (K.C. Chou & C.C. Pan). HUA-LIEN: Antung, 19♀, 37♂, 14–17.II.1984 (K.C. Chou & C.C. Pan); Fuli, 2♀, 1♂, 16.II.1984 (K.C. Chou & C.C. Pan).

Distribution: Taiwan.

Biology and host: Unknown.

Remarks: *T. lini* sp. nov. would key in LaSalle's (1987) key to New World species of *Tanaostigmodes* to couplet 16. However, *T. lini* would not fit satisfactorily in either alternative to couplet 16. Only one Indian species, *Tanaostigmodes cajaninae* LaSalle, was described from Oriental region (Lateef *et al.*, 1985). The Taiwanese species differs from the Indian species by the male antenna with funicular rami on F1–F4.

Etymology: Named for Mr. Kwei-shui Lin.

Acknowledgments

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