

A New Species of the Genus *Tisis* (Lepidoptera, Lecithoceridae) from Thailand

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ABSTRACT

A new species of the genus *Tisis* Walker, *T. nielseni* sp. nov. is described from Thailand, with illustrations of the male and female genitalia compared with those of *T. mesozosta* Meyrick.

Key words: Lepidoptera, Lecithoceridae, *Tisis*, new species, Thailand

INTRODUCTION

The genus *Tisis* Walker, 1864 was established on the basis of *T. bicorella* Walker, 1864 from Sarawak, Malaysia, and the distributional range of the genus is so far limited to the Oriental region, including Malaysia, Indonesia, Myanmar, the Philippines, the southern part of China, and Taiwan, comprising 22 species. Since the early workers of the Microlepidoptera (Walker, 1864; Snellen, 1903; Meyrick, 1894, 1910, 1916, 1929) described most of these known species, only a few works for this genus have been done by Gozmany (1978) and Wu (1997). Recently, Wu (1998) reviewed Malaysian and Indonesian species of the genus, reporting nine species. The genus is easily characterized by the male antenna which is thickened with dense scales near base, and the 2nd segment of its labial palpus long, with scale tuft apically in which the 3rd is usually concealed. However, the 3rd segment of the type species, *bicorella* Walker and *seclusella* Walker is exceptionally slender and normal.

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DESCRIPTION

Tisis nielseni sp. nov. (Figs. 1-3)

Material examined. Holotype: male, Khao Yai Nat'l. Park, ca. 700 m, Nakhon Nayok Prov., Thailand, 29 IX-6X 1984 (Karsholt, Lomholdt & Nielsen leg.). Paratypes: 3 ♂, 2 ♀, same data as holotype.

Description. Wingspan 17-18 mm. Head orange white. Thorax and tegula greyish brown. Antenna in male with scape slightly thickened, greyish brown; flagellum strongly dilated and flattened into ellipse along basal part, with cavity on antero-dorsal surface, which is dark brown dorsally and leaden shine ventrally, thence attenuated, orange white beyond 3/5 and greyish brown in apical 1/10. Antenna in female, scape slender, elongate; flagellum moderate, shiny brownish gray, with roughly appressed scales, attenuated from basal 1/3. Third segment of labial palpus extremely long, about 5 times of 2nd segment in length, ending with long expanded pencil of hairs; recurved; light yellow, but pencil brownish gray. Forewing elongated, oblong; ground color deep purple; costa slightly expanded before middle, thence almost straight; apex obtuse; termen slightly oblique in male, gently curved or less oblique in female; metallic brown median transverse band connected with costal line, convex at middle outwardly, connecting with basal longitudinal streak extended to middle of basal purplish area, these band and streaks with metallic reflection; purplish brown oblong area extended to termen beyond median band; purplish streak along costa beyond median band extended to preapex. R_3 stalked with R_{4+5} ; R_5 to apex; M_1 approximated with R_{3+4+5} at base; M_{2+3} coincident with CuA_1 ; cilia concolorous. Hindwing pale greyish orange, with row of dark brown setae on M_{2+3} vein and dark brown scales scattered below vein; M_{2+3} stalked with CuA_1 , stalk of $M_{2+3}+CuA_1$ stalked with CuA_2 ; cilia concolorous.

Male genitalia (Figs. 2-A, B, and F, compared with those of *T. mesozosta* Merick in figs 2-C, D, and E). Gnathos relatively large and sickle-shaped. Bridge-like band connecting tegumen, without prominent median angle. Costa of valva slightly incurved; apex rounded; crescent cavity well presented medially; outer margin almost straight, with row of numerous short spine-like bristles, and with strong spine near middle; ventral margin emarginated near base and beyond middle; saccus heavily sclerotized, extended to emargination, sharply acuted at apex, with tuft of bristles

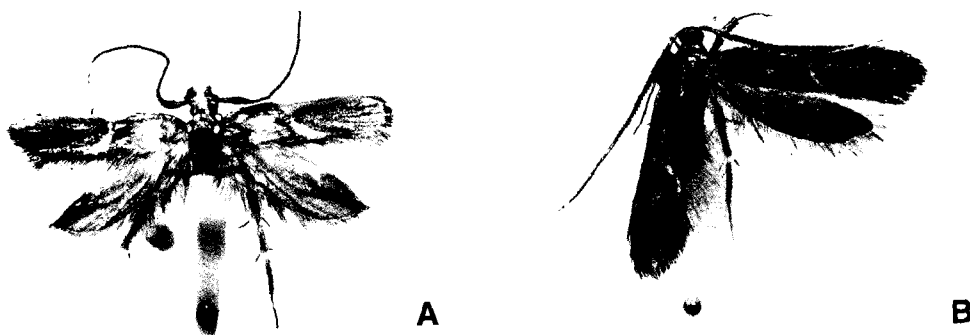


Fig. 1. Adults. A, *Tisis nielseni* sp. nov., paratype (male); B, *Tisis mesosta* Meyrick (male, Taiwan).

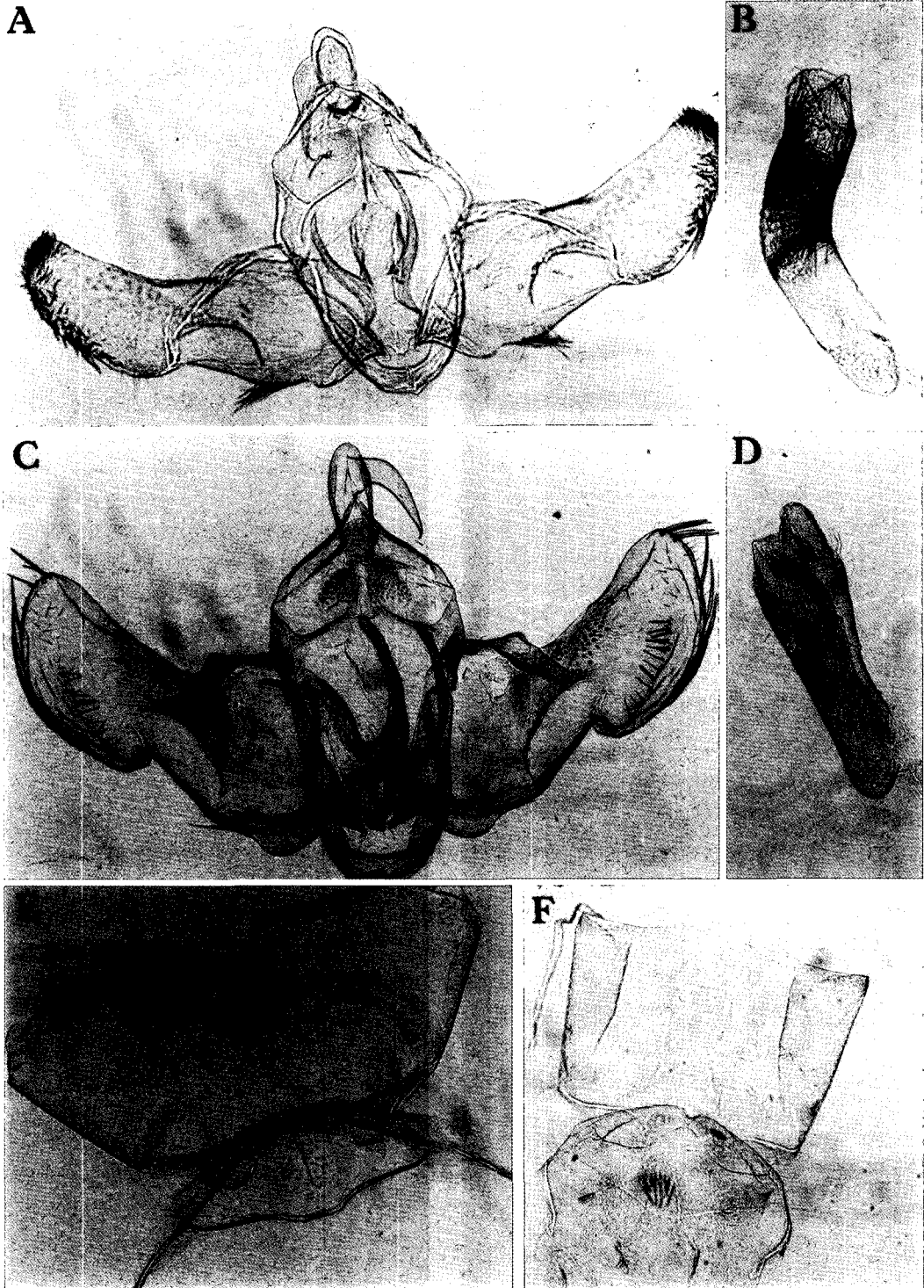


Fig. 2. Male genitalia of *Tisis nielseni* sp. nov. (A, B, E) and *Tisis mesozosta* Meyrick (C, D, F). A, C, male genitalia; B, D, aedeagus; E, F, 7-8th abdominal segments.

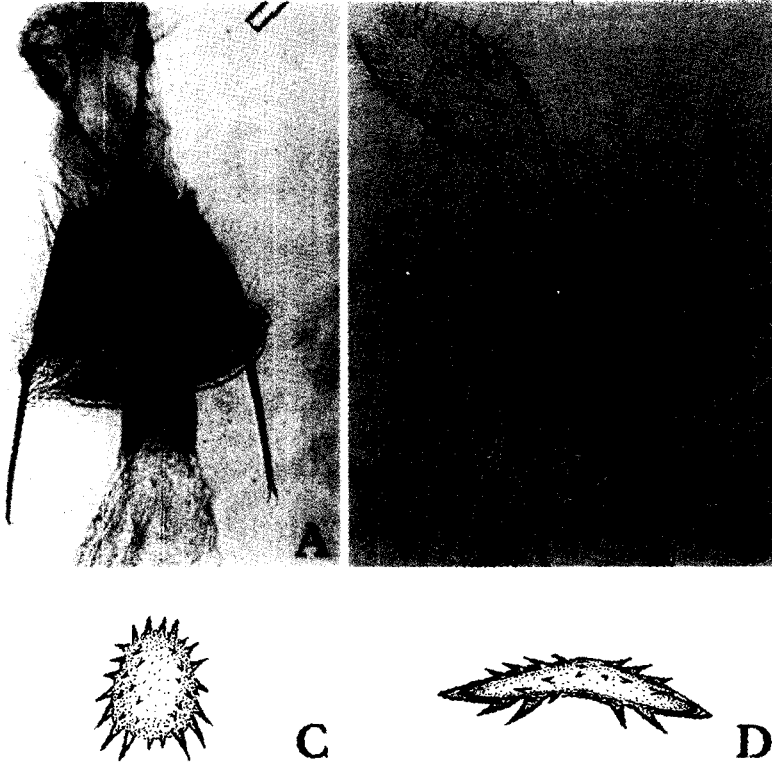


Fig. 3. Female genitalia of *Tisis nielseni* sp. nov. (A, C) and *Tisis mesozosta* Meyrick. (B, D) A, B, female genitalia; C, D, signum.

medially. Juxta with two asymmetrical pairs of lateral lobes, ventral ones longer than dorsal ones, ventro-right one much longer than ventro-left ones. Aedeagus strongly bent medially, wrinkled on dorsal surface beyond middle, slightly shorter than valva. Seventh tergite emarginated at middle on caudal margin (compared with fig. 2-E.).

Female genitalia (Fig. 3-A, C compared with those of *mesozosta* Merick in the fig. 3-B, D). Antrum heavily sclerotized, funnel-like, asymmetrical caudally; ductus bursae short, wider towards corpus bursae; corpus bursae relatively small, widely connected with accessory bursae; signum cone-shaped with many setae along outer margin.

Etymology. The specific name is after the late Dr. E. S. Nielsen to commemorate him, who is one of the collectors of the type specimens, one of the most famous microlepidopterist, and died recently before this manuscript was submitted.

Remarks. This new species is closely similar to *T. argyrophaea* Meyrick described from Borneo, *T. helioclina* Meyrick from Philippines, and *T. mesozosta* Meyrick from Taiwan, but they can be distinguished each other by the shape of median band and the color pattern of forewing, as compared with *T. mesozosta* Meyrick in fig. 1-B. Among them, the male genital characteristics are most similar to those of *T. mesozosta* Meyrick, but it can be separable from the latter as illustrated in figs. 2-C, D.

Distribution. Thailand.

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태국産 *Tisis*屬 (나비目, 남방빨나방科)의 1新種

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요 약

태국産 *Tisis*屬 (남방빨나방科)에 속하는 1種이 新種으로 확인되어 이를 *Tisis nielseni* sp. nov.로 명명, 기재하며, 성충 및 암수 생식기를 도해하여 근연종인 대만産 *T. mesozosta* Meyrick와 비교하였다.