

Kontyû, Tokyo, 53 (2): 366-369. June 25, 1985

A New Species of Machaerotidae (Homoptera, Cercopoidea) from Taiwan

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Abstract A new machaerotid homopteran is described from central Taiwan under the name of *Machaerota propria*. It is peculiar in the large size of body and in having protruding frontoclypeus.

Since the revisional study by MAA (1963), there have been no publications on the taxonomy of machaerotid insects, except for the paper by LU (1982) on Chinese species, which includes descriptions of several new taxa. In this paper, I am going to describe a new species of the genus *Machaerota* from Taiwan, on the basis of the specimen preserved in the collection of Hokkaido University, Sapporo.

Before going further, I wish to express my sincere gratitude to Professor Sadao TAKAGI of Hokkaido University for permitting me to examine the valuable specimen. I am also indebted to Dr. Shun-Ichi UENO of the National Science Museum (Nat. Hist.), Tokyo, for reading the manuscript.

Machaerota propria M. HAYASHI, sp. nov.

(Figs. 1-6)

Dorsum of body mostly castaneous, without distinct spots and markings; head black, with a spot along antennal ledge dark castaneous; pronotum castaneous, punctulate, with black calli; scutellum proper also punctulate, with postero-inferior margin ivory-white, and with a few black spots on the rim of sulcus; scutellar process slightly darkened apicad, with basi-lateral depression black; abdominal tergum black with median (central) part widely light ochreous; forewing hyaline, evenly bronze-tinged, with veins translucent and castaneous.

Venter black with minute silvery hairs; meron-2 and apical margin of anepisternum-3 ochreous; each caudal margin of 4th-6th abdominal sterna dark ochreous; legs dark castaneous, with hind femur fuscous; abdomen punctured.

Frontoclypeus conically swollen forwards, slightly arched upwards, with a median carina, continued downward to clypeus (anteclypeus), and with transverse striation pilose; ocelli more apart from each other than from eyes. Pronotum convex, length to width 11/15; median carina clearly recognizable, obscured towards the posterior end; anterolateral margin distinctly longer than posterolateral margin, ca. 2× as long as the latter; lateral angle rounded; lateral ampliation rather developed, with distinct oblique ental carina. Scutellum (mesonotum) without median carina;

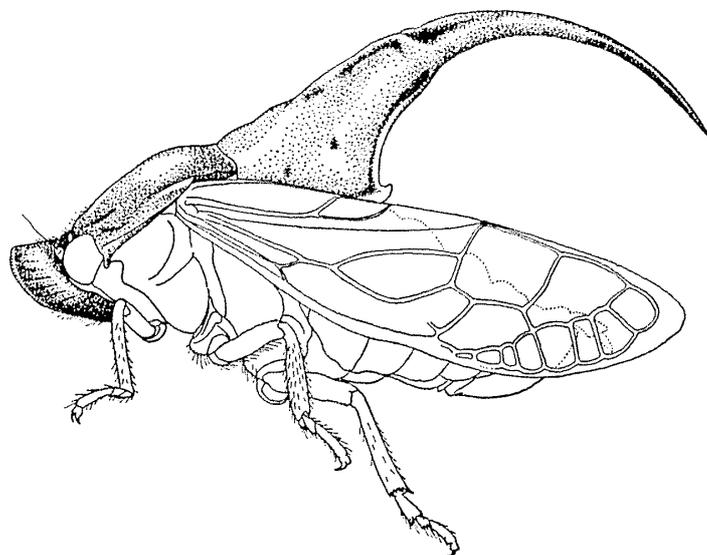


Fig. 1. *Machaerota propria* sp. nov., in profile. (Mr. T. ENDO del.)

sulcus rather shallow with well-defined rim, slightly longer than $1/2$ the scutellar length and nearly as wide as the interocellar distance; lateral surface more or less concave below the rim of sulcus; inner groove along postero-inferior margin distinct; scutellar process long, evenly arched, dorsally carinate at base and attenuate towards apex (Figs. 1–3).

Forewing slender with both anal and apical margins nearly straight, and marginal area coarsely rugose; discoidal cell ca. $3 \times$ as long as wide; veins rather thick and not well-defined, especially basal part of veins 1A and 2A very obscure, widely fused to each other (Fig. 4). Hind femur widened at subapex, with a longitudinal groove on both the inner and outer surfaces; hind tibia smooth-surfaced, without spine (Fig. 5).

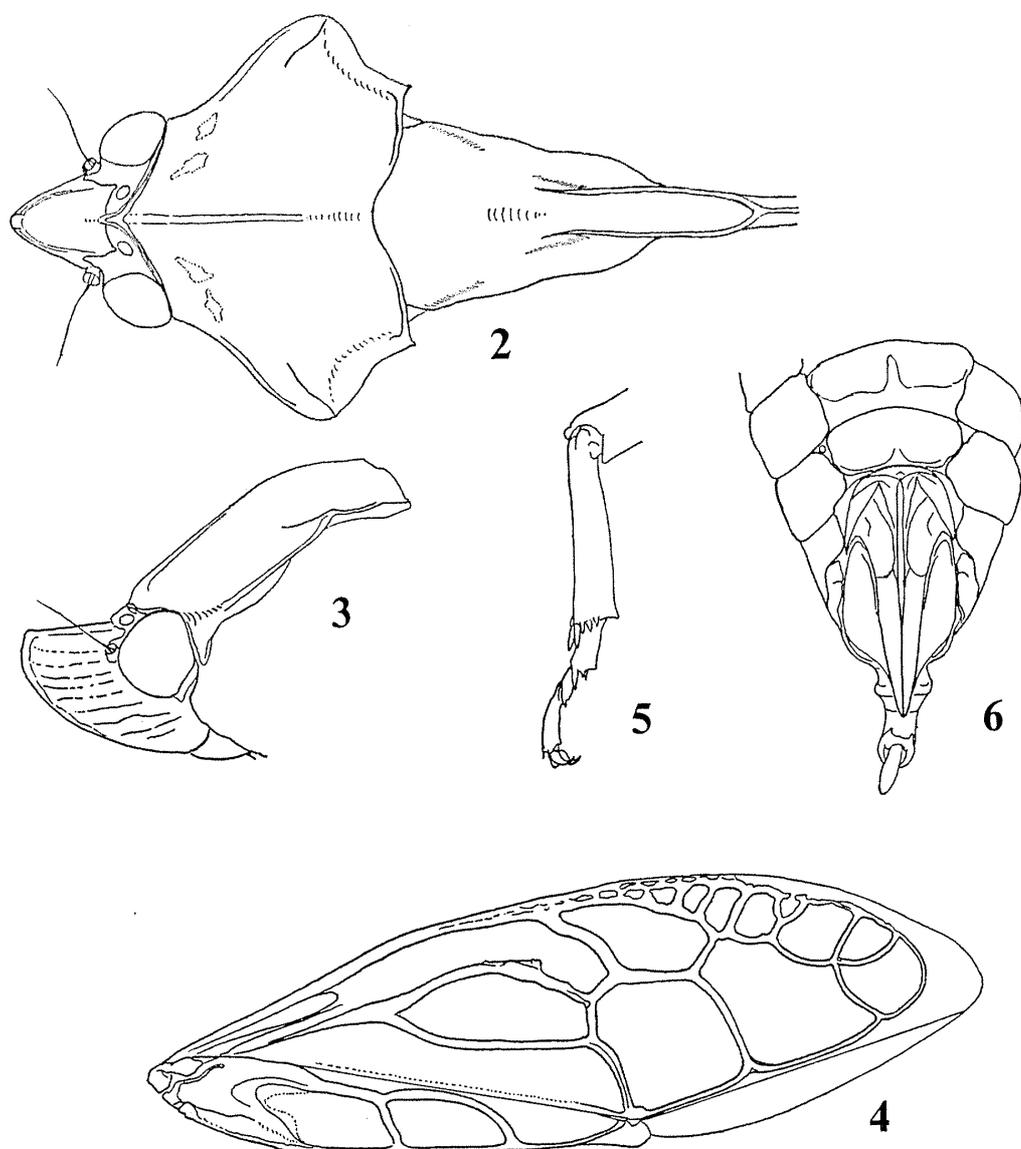
Caudal margin of 7th abdominal sternum rotundately concave, making the central part of sternum very narrow and rather linear; ventrolateral part of 9th tergum moderately expanded; 1st and 2nd vulvae (ovipositor and ovipositor sheath) flattened dorsoventrally, and curved upwards (Fig. 6).

Body length: 8.3 mm (excluding forewing), 9.0 mm (to tip of forewing), 9.4 mm (to apex of scutellar process). Body width: 3.0 mm. Forewing: 7.4 mm long, 2.2 mm wide.

Distribution. Central Taiwan.

Holotype: ♀, Tongpu, Nantou Prov., Taiwan, 5–10. VII. 1977, H. TAKIZAWA leg. The holotype is preserved in the collection of the Entomological Institute, Faculty of Agriculture, Hokkaido University.

Judging from the relatively (not strongly) protruding frontoclypeus, this species may, at a glance, be classified under the genus *Sigmasoma* SCHMIDT, *Neosigmasoma* LU or *Grypomachaerota* SCHMIDT. However, the shorter discoidal cell of forewing



Figs. 2-6. *M. propria*.—2, Head and thorax in dorsal view (scutellar process omitted); 3, head and pronotum in lateral view; 4, forewing; 5, hind tibia and tarsus; 6, caudal part of abdomen in ventral view.

and/or the absence of tibial spine lead this species to the genus *Machaerota* BURMEISTER. It is very similar and probably allied to *M. flavolineata* DISTANT from Burma, Vietnam, etc.; a detailed discussion on the relationship between the two species will be postponed until the male of that species is available.

According to MAA (1963), 3 *Machaerota* species have been known from Taiwan, *formosana* KATO, *esakii* KATO and *taiheisana* (MATSUMURA). This new species is easily discriminated from these congeners and also from the Chinese ones by the larger size of body, evenly arched posterior process of scutellum, conically produced

frontoclypeus, and so on.

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