



One new species of *Hemielimaea* Brunner von Wattenwyl from China

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Abstract

One new species *Hemielimaea* (*Hemielimaea*) *adeviara* sp. nov. from China is described. Characteristics of the stridulatory file on underside of male left tegmen, male stridulatory area on left and right tegmen, and abdominal apex of male and female are provided. Important and necessary illustrations of the new species are presented. The type specimens are deposited in Collections of Institute of Zoology, Chinese Academy of Sciences, Beijing, China (IZCAS).

Key words: new species; *Hemielimaea*; katydid; China

Introduction

Hemielimaea was established by Brunner (1878) for a single species *Hemielimaea chinensis* Brunner, 1878, which was described from China. Subsequently, several new species were described from Taiwan Island, Northern Vietnam and Thailand. Ingrisch (1998) considered *Hemielimaea* as one subgenus of *Elimaea* Stål, 1874, whereas, Gorochov (2004) restated *Hemielimaea* as a valid genus in the tribe Elimaeini, and divided it into two subgenera. Recently, Ingrisch and Gorochov (2007) provided a review of *Hemielimaea*, with detailed description of available species including male stridulatory apparatus, male stridulatory file, male sclerotised genitalia, and female genitalia. Currently, the genus consists of 2 subgenera and 14 species worldwide, with 6 species in China. Here we describe one new species from Guangxi Province, southwestern of China. The terminology of the male stridulatory apparatus and measurements follows Ingrisch & Gorochov (2007: figs. 5, 8).

Hemielimaea (*Hemielimaea*) *adeviara* sp. nov., Liu, Song and Yuan

Holotype, 1 male, IOZ(E)361403, China: Guangxi Prov., Longsheng, Tianpingshan Mt., 740m, 1963.VI.17, Coll. Wang Shuyong (IZCAS).

Paratype: 1 female, IOZ(E)361386, China: Guangxi Prov., Longsheng, Neicuijiang, 840m, 1963.VI.7, Coll. Wang Chunguang (IZCAS).

Description

Male. Stridulatory vein 3.5 mm long (Fig. a), slightly shorter than greatest width of pronotal disc in posterior area (3.6 mm). Stridulatory vein on underside of left tegmen with about 350 densely arranged narrow teeth, which becoming smaller from centre to both ends (Fig. 1c,d). Mirror of right tegmen longer than wide (2.9 against 2.5 mm); distance between proximal heavily sclerotized vein and apex of mirror 3.5 mm; maximal width of dorsal tegminal part behind mirror 2.8 mm (Fig. 1b). Epiproct approximately rectangular, longer than wide (Fig. 1f). Cerci 5.0 mm long (Fig. 1f,g), with straight, rounded basal part which is slightly descending and slightly narrowed mediad; curved mediad in apical half, slightly swollen in apical 5/6 part, and then gradually narrowed forming a cone with acute tip. Subgenital plate curved in an about 40° angle (Fig. 1g), upcurved area with approximately parallel lateral margins, apical part not deviating, and only with a distinct narrow angular notch at apex (Fig. 1e). Phallic complex with unpaired bifurcate sclerite, long, stout, dorsal margin sinuate, serrate in lateral view (Fig. 1h); similar to those of other species in the subgenus *Hemielimaea*.

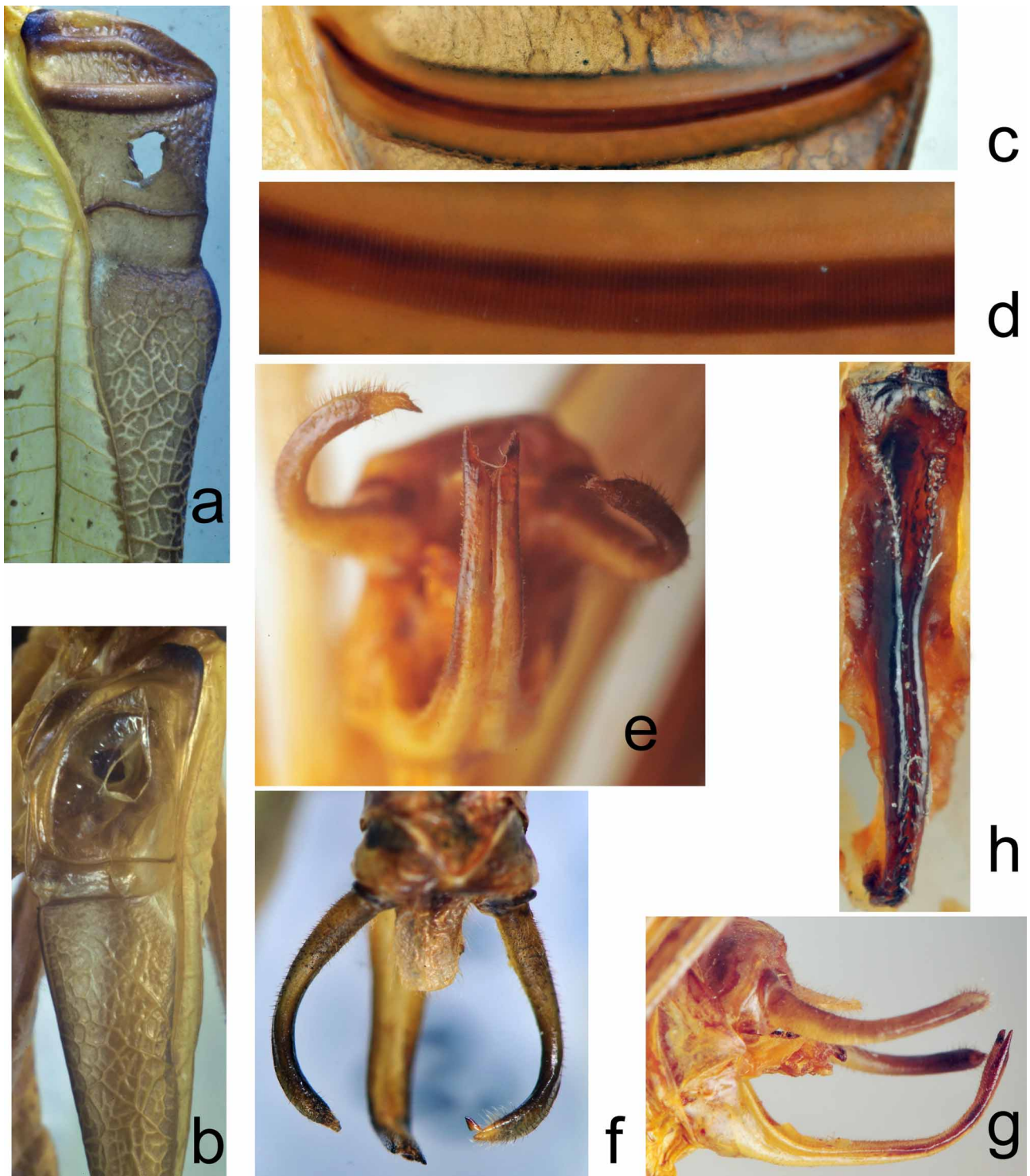


FIGURE 1. a–e. *Hemielimaea adeviara* sp. nov., Liu, Song and Yuan. a. Stridulatory area of male left tegmen; b. Stridulatory area of male right tegmen; c. Male stridulatory file on underside of left tegmen, whole view; d. Central quarter part of stridulatory file on underside of left tegmen; e. Apical area of male subgenital plate; f. Male abdominal apex in dorsal view; g. Male abdominal apex in lateral view; h. Male phallic sclerite in dorsal view.

Coloration. Yellowish green (probably green when alive) and with contrasting dark brown markings. Face with frons, genae, and mandibles yellow, compound eyes medium brown, vertex dark brown. Antennae dark brown with very sparse white annulation. Pronotum with disc dark brown with a short light stripe laterally at both sides at anterior margin; lateral lobes greenish yellow. Tegmen yellowish green with arrangement of dark brown dots in cells; anterior margin, the narrow space between subcosta and radius in basal half and including part of these veins,

and all of the dorsal area including stridulatory vein on dorsal side of left tegmen dark brown; base of M+Cu with a blackish brown stroke; mirror on right tegmen transparent. Most portios, except apex of femora, yellow; legs with ventral margin and apical quarter of femur, all of fore tibia and all of tarsus blackish brown; middle and hind tibia dark brown. Cerci except for apical blade, and apical area of subgenital plate dark brown.

Female. The single female at hand is not in good condition. Subgenital plate deeply notched in middle, resulting lateral lobes acute-angular without any other projections. Ovipositor as in other species in the subgenus *Hemielimaea*. Coloration as in male. Vertex dark brown with a short blackish stripe behind compound eyes. Legs brownish yellow, with darkish brown spines. Abdominal apex brownish yellow.

Measurements. (1 male, 1 female). Length of body with wings: male 51.0, female 53.5; length of body without wings: male 23.0, female 33.0; length of pronotum: male 5.5, female 5.0; length of tegmen: male 40.5, female 42.5; tegmen width: male 7.1, female 7.5; length of hind wing: male 44.5, female 46.5; length of hind femur: male 25.1, female 25.2; length of female ovipositor: 7.5 mm. – Ratio tegmen length to width: male 5.70, female 5.67.

Discussion. The new species is distinguished by the lateral lobes of male subgenital plate (Fig. 1e), which are not deviating by any other known species in the subgenus *Hemielimaea*. It most closely resembles *H. omeishanica* Gorochov in the shape and number of stridulatory teeth on male left tegmen and shape of mirror on male right tegmen, but differs from the latter by the length of stridulatory file on male left tegmen and shape of inner margin of male stridulatory apparatus as well as apex of male subgenital plate.

Etymology. Named for the shape of male subgenital plate, the apices of which are parallel.

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