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Genus *Horniella* (Coleoptera: Staphylinidae: Pselaphinae) New to the Chinese Fauna, with Description of a Second New Species

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Abstract: The genus *Horniella* Raffray, 1905 is discovered from China. Re-description of genus is provided for first time. A second species of the genus, *H. falcis* Yin & Li sp. nov., is described from Guizhou Province with illustrations.

Key words: taxonomy, Pselaphitae, Tryini, Somatipionina, new species, *Horniella falcis* Yin et Li sp. nov., China

Introduction

The generic name *Horniella* was given (Raffray, 1905) to replace former *Hornia* Raffray, 1901 (preoccupied), and to hold the only valid species *Horniella hirtella* (Raffray, 1901). Very recently, additional species of *Horniella* were recorded from Khao Yai (3 females) and Kaeng Krachan (1 female) National Parks, Thailand (Nomura *et al.* 2008, Nomura *et al.* 2010) but no male specimen were found and the Thai species was (were) left undescribed. Chandler (2001) stated that '*Horniella*, which is widespread in the Oriental region, is extremely close to the Australian genus *Harmotopsis* Raffray, 1900'. Both genera are grouped in subtribe Somatipionina, tribe Tyrini. They share large and stout body, maxillary palpus with large fourth segment without apical tubercle and mesal margin without longitudinal sulcus. However, *Horniella* may be separated by pronotum lacking paranotal carinae, aedeagus without parameres and their distributional regions. According to the key to world genera of Tyrini (Hlaváč, Chandler 2005), *Horniella* is also distinguished by the first visible tergite (morphologically the fourth tergite) longer than the second one while it is about as long as the fifth tergite in *Harmotopsis*.

Recently, collecting efforts were made during a short expedition to Guizhou Province, South China (1 June 2010 – 10 June 2010). The first author and his colleagues obtained some pselaphine beetles sifted from leaf litter. After examining the material, we found a species of genus *Horniella* that is new to science. In the following lines, we are going to provide a re-description of the genus *Horniella*, a detailed description, illustrations of importand diagnostic characters and discussion on the systematic position of the new species.

Material and Methods

Specimens were collected from leaf litter of the forest floor by sifting. They were killed with ethyl acetate and then dried. Dissections were made in 75% ethanol; material was macerated in hot solution of NaOH for 10-30 min when necessary; genitalia

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and small parts were mounted in Euparal (Chroma Geselschaft Schmidt, Koengen, Germany) on plastic slides that were placed on the same pin with the specimens. Photos of habitus were taken by a Canon EOS 40D Camera mounted with an MP-E 65 mm Macro Photo Lens; line drawings were made using Adobe Illustrator CS2.

The terminology of fovea system mainly follows Chandler (2001).

The acronym used and measurements of various body parts are coded as follows: NMNHS – National Museum of Natural History, Sofia, Bulgaria; NSMT – National Museum of Nature and Science, Tokyo, Japan; SNUC – Insect Collection of Shanghai Normal University, Shanghai, China; AL – length of abdomen; AW – width of abdomen; BL – body length; BW – body width; EL – length of elytra; EW – combined width of elytra; HL – length of head; HW – width of head; PL – length of pronotum; PW – width of pronotum.

Results

***Horniella* Raffray, 1905**: 434 [type species: *Hornia hitella* Raffray, 1901: 30; type locality: Bundarawella, Ceylon (now Sri Lanka)]

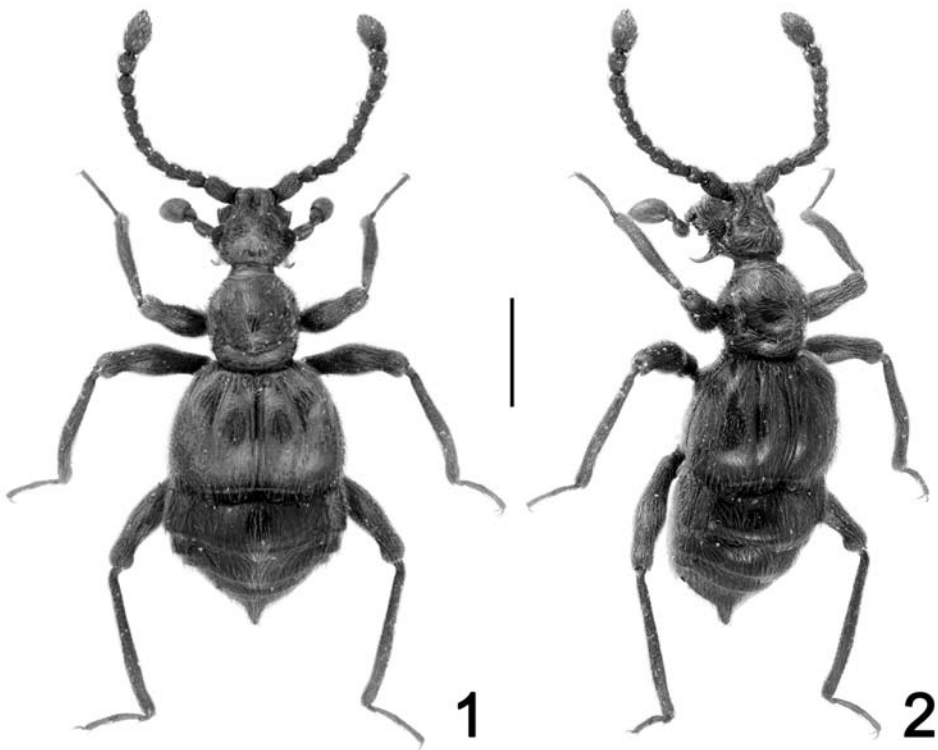
Hornia Raffray, 1901: 29 (junior homonym)
Horniella Raffray, 1905: 434 (replacement name)

Description. Head with antennal tubercles distinct and prominent. Frontal fovea distinct, pair of vertaxal foveae well difined, all foveae deep and with short setae. Eyes large and prominent; situated in middle of head; temples rounded; head ventrally with median gular fovea slightly transverse. Maxillary palpi with segment I minute; II elongate, pedunculate; III subtriangular; IV the largest, nearly oval, truncated at base, narrowed from middle toward apex, palpal spine distinct to faint. Antennae long, with all segments covered with dense setae, scape much longer than pedicel, club usually three-segmented. Occiput broad.

Pronotum covered with dense setae, disc convex, median antebasal fovea present; pair of lateral antebasal foveae connected by antebasal sulcus which extends and combined with lateral longitidunal sulci.

Elytra combined wider than long, covered with setae, each elytron with two basal foveae. Disc convex, discal stria present. Thorax with lateral mesoventral and median metaventral foveae.

Abdomen convex, covered with long setae. First visible tergite (morphologically tergite IV) longer than the second, lacking basal ridges, with pair of basal lateral foveae and basomedian depression;



Figs. 1-2. Habitus of *Horniella falcis* sp. nov. 1 – dorsal view; 2 – dorsal-lateral view. Scales: 1.0 mm.

sides well demarcated by pair of paratergites; tergites V-VII lacking depression, ridge or foveae; V-VI successively shorter and narrower; VII slightly longer than V; sternites IV-VII subequal in length, covered with long setae, lacking foveae.

Remarks: See introduction.

***Horniella falcis* Yin et Li sp. nov.**

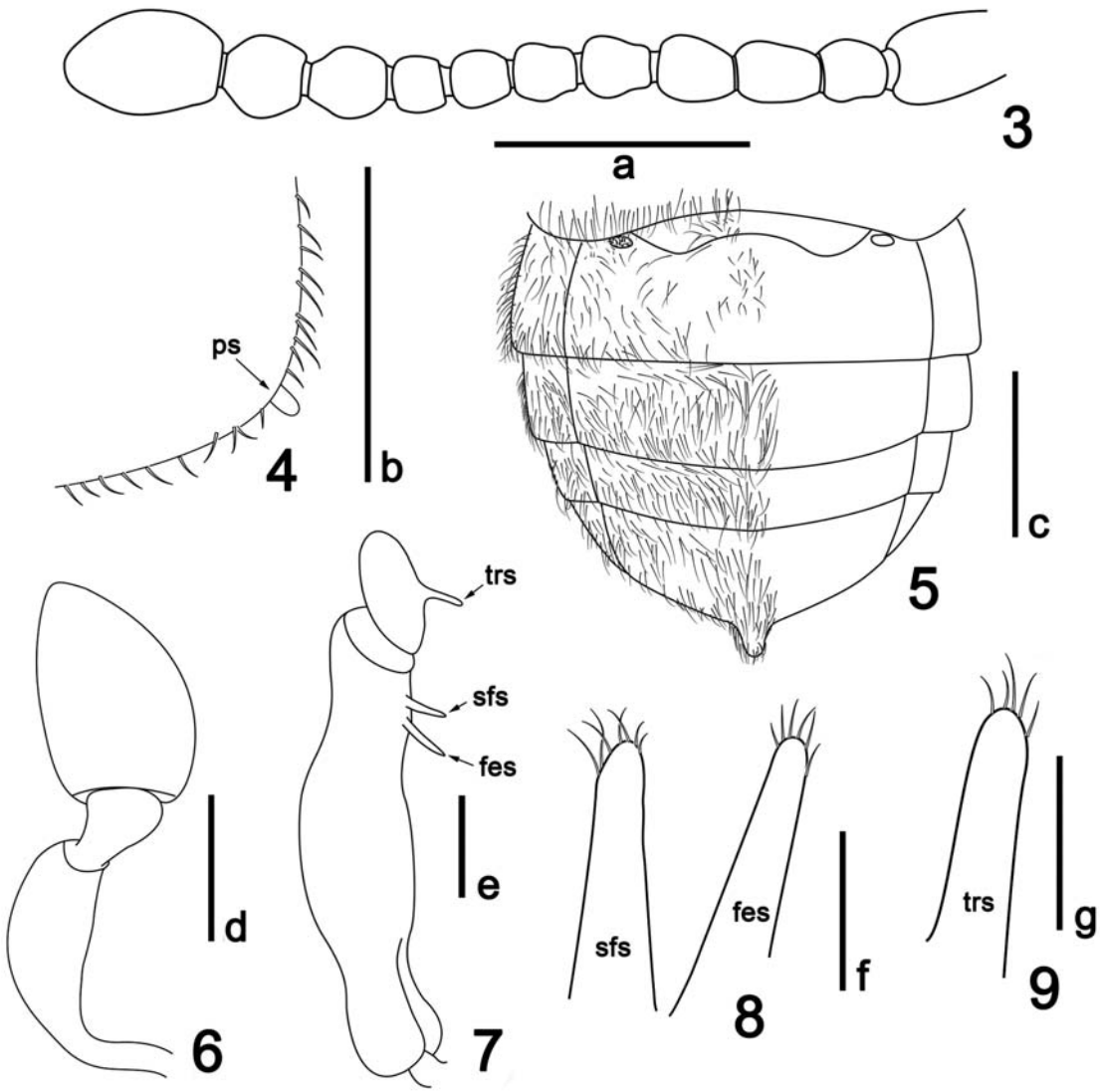
(Figs. 1-14)

Type locality: Kuankuoshui National Nature Reserve, Guizhou Province, South China.

Type material: Holotype male (M), labeled '**China:** Guizhou Prov. / Zunyi City, Suiyang County / Kuangkuoshui N. R. / alt.1530 m / 25 Apr. 2009 / Yin & Zhai coll.' (SHNUC).

Description: Male (M). Body (Figs. 1-2) large and stout, BL 3.45 mm, BW 1.51 mm; reddish brown, maxillary palpi and tarsi lighter; pubescent.

Head slightly longer than wide, HL/HW = 1.05; with linear depression between antennal tubercles which are situated close to each other. Ventral surface with pair of hook-like protuberanc on lateral sides. Segment IV of maxillary palpus (Fig. 6) with minute palpal spine (Fig. 4). Each eye composed of about 55-60 facets. Antennae (Fig. 3) long; scape large, about twice as long as pedicel; pedicel small, segments III-VIII successively shorter; IX-XI loosely clubbed. Pronotum about as long as wide, PL/PW = 1.02; PL/HL = 1.12; PW/



Figs. 3-9. Details of *Horniella falcis* sp. nov. 3 – antenna; 4 – apex of fourth segment of maxillary palpus, enlarged; 5 – abdomen, in dorsal view; 6 – second to fourth segments of maxillary palpus; 7 – foretrochanter and forefemur; 8 – sfs and fes, enlarged; 9 – trs, enlarged. Abbreviations: fes – femural spine; ps – palpal spine; sfs – subfemural spine; trs – trochanteral spine. Scales: a, c – 0.5 mm; d, e – 0.2 mm; b, f, g – 0.05 mm.

HW = 1.06. Elytra combined wider than long, EL/EW = 0.72; discal stria extending from outer basal fovea toward three-fourths of elytral length. Legs long; foretibia with trochanter and femur armed with spines (Fig. 7), each spine covered with apical setae (Figs. 8-9); mid and hind legs normal in structure. Abdomen (Fig. 5) larger than elytra, AL/EL = 1.26; AW/EW = 1.04; tergite VII with posterior margin forming large protuberance; tergite VIII (Fig. 10) transverse, concave in apicomedian margin; sternite VIII transverse (Fig. 11), apicaomedian margin projected. Sternite IX absent.

Aedeagus (Figs. 12-14) length 0.46 mm, weakly sclerotized; with median lobe broad, widest at apex which is nearly flabellate; attached small fore lobe transverse, hind lobe nearly trapezoidal; basal bulb broad, with transverse veins prominent; basal foramen large; lacking parameres; endophallus small, bifurcated.

Female unknown (F).

Remarks: The new species is apparently differed from *H. hirtella* by much larger body size (2.9 mm of *H. hirtella*), antennal tubercles very close to each other (profoundly divided to each other in *H. hirtella*), location of spines on fore leg and shape of aedeagus.

Bionomics: Holotype is sifted from moist leaf litter near the edge of forest.

Etymology: The specific name is derived from Latin word '*falcis*', means 'sickle, hook', in association with head bearing a pair of hook-like protuberance on ventral surface.

Distribution: Guizhou Province, South China.

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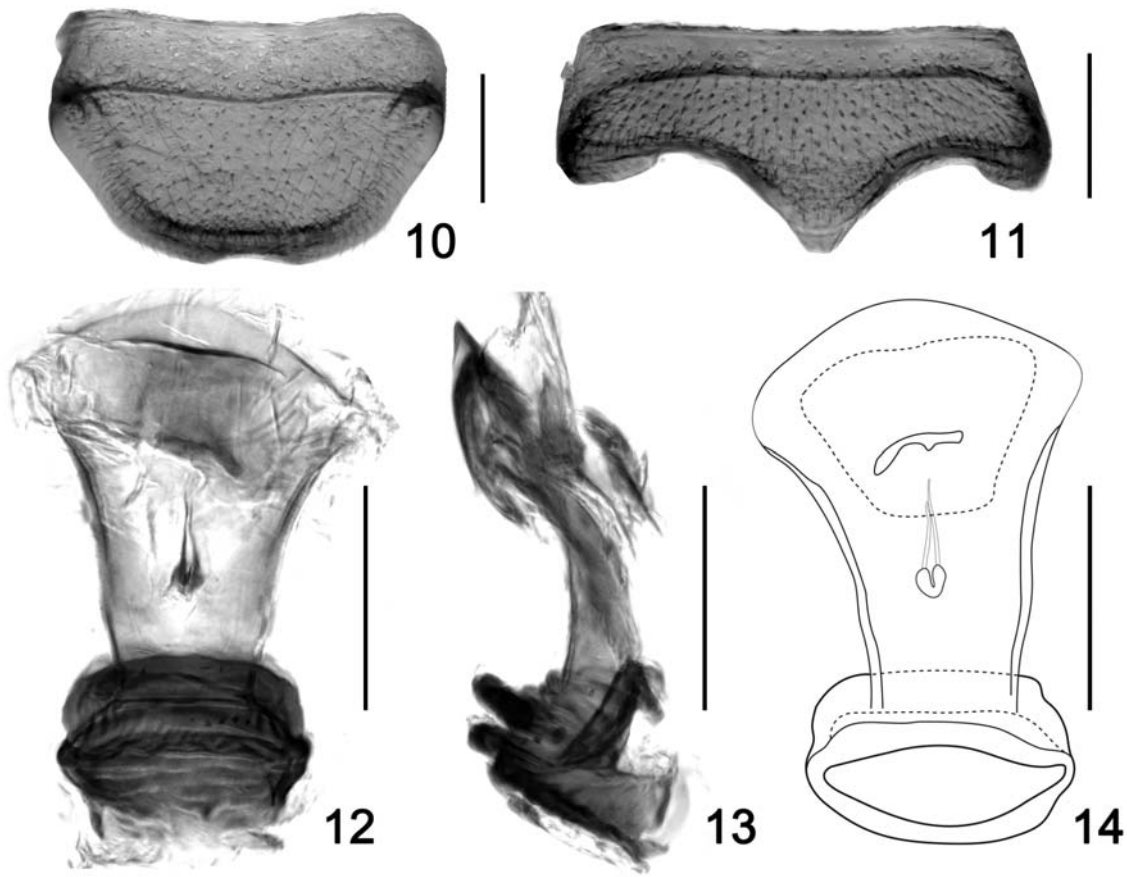

Figs. 10-14. Details of *Horniella falcis* sp. nov. 10 – eighth tergite; 11 – eighth sternite; 12 – aedeagus, in dorsal view; 13 – aedeagus, in lateral view; 14 – aedeagus, in ventral view. Scales: 0.2 mm.

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Род *Horniella* (Coleoptera, Staphylinidae, Pselaphinae) нов за фауната на Китай, с описание на втори нов вид

Зи-Вей Юн, Ли-Жен Ли и Мей-Юн Зао

(Резюме)

За първи път се съобщава род *Horniella* Raffray, 1905 от Китай и е направено преописание на рода. Описан и илюстриран е нов вид – *H. falcis* Yin & Li sp. nov., от провинция Guizhou.