Revision of the Oriental genus *Horniella* Raffray (Coleoptera, Staphylinidae, Pselaphinae)

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Abstract

The Oriental pselaphine genus *Horniella* Raffray, 1905 (tribe Tyrini: subtribe Somatipionina) is redefined and revised. Twenty-five new species are described: *H. centralis* Yin & Li, sp. n., *H. conflaqua* Yin & Li, sp. n., *H. dao Yin & Li, sp. n., H. hongkongensis Yin & Li, sp. n., *H. nakhi Yin & Li, sp. n., H. schuelkei Yin & Li, sp. n., *H. sichuanica* Yin & Li, sp. n., *H. simplaria* Yin & Li, sp. n., and *H. tianmuensis* Yin & Li, sp. n. from China, *H. himalayica* Yin & Li, sp. n. from Nepal and North India, *H. asymmetrica* Yin & Li, sp. n., *H. burckhardti* Yin & Li, sp. n., *H. intricata* Yin & Li, sp. n., *H. kaengkrachan Yin & Li, sp. n., H. khaosab Yin & Li, sp. n., *H. loebli Yin & Li, sp. n., H. pluhman Yin & Li, sp. n.,* *H. prolix Yin & Li, sp. n., H. schwendingeri Yin & Li, sp. n. from Thailand, *H. philippina* Yin & Li, sp. n. from the Philippines, *H. awana Yin & Li, sp. n., H. gigas Yin & Li, sp. n., H. pilosa Yin & Li, sp. n., and *H. smetanai Yin & Li, sp. n. from Malaysia, and* *H. cibodas Yin & Li, sp. n. from Indonesia.* The two previously described species, *H. hirtella* Raffray, 1901 (type species) from Sri Lanka and *H. falcis* Yin & Li, 2010 from China are redescribed, and a lectotype is designated for *H. hirtella*. Illustrations of habitus and important diagnostic features, an identification key, and distributional maps for all species are provided. Eleven unidentified species represented only by females are left unnamed. Illustrations of the habitus and the genital complex, and label data of these species are given to facilitate future study. All distributional maps for all species are provided. Eleven unidentified species represented only by females are left unnamed. Illustrations of the habitus and the genital complex, and label data of these species are given to facilitate future study. All available data indicates that species of *Horniella* typically inhabit leaf litter of various kinds of forests, and can be most efficiently collected by sifting and use of Winkler-Moczarski extractors.

Key words: taxonomy, *Horniella*, identification key, new species, lectotype, Oriental, diversity

Introduction

The Oriental pselaphine genus *Horniella* Raffray, 1905 is placed in the tribe Tyrini Reitter, subtribe Somatipionina Jeannel, and currently holds two species (Hlaváč & Chandler 2005; Yin et al. 2010). Members of the genus are medium to large, relatively stout pselaphines inhabiting moist leaf litter of various kinds of forests, and are usually encountered in litter samples. According to the collection data of many species and personal communication with Ivan Löbl (April, 2014), individuals are most efficiently collected by sifting, or by use of ‘Winkler-Moczarski’ extractors (the latter method was described in Besuchet et al. 1987 and Löbl 1992). According to the structure of their mouthparts and habitat, adults of *Horniella* are presumably active predators hunting smaller arthropods.

The documented richness of *Horniella* is quite low, with only two described species, though a few undetermined species were known to previous workers (Nomura et al. 2008, 2010). Achille Raffray (1901) described *Hornia hirtella* Raffray from Bundarawella, Ceylon (now Sri Lanka) as a new genus and species. Later the generic name was found to be preoccupied by Hornia Riley, 1878 and was replaced by *Horniella* Raffray (Raffray 1905). Hlaváč and Chandler (2005) catalogued the world Tyrini, and presented a key to genera, placing *Horniella* near the Australian *Hamotopsis* Raffray. A second species, *Horniella falcis* Yin & Li, 2010 (in Yin et al. 2010), was reported recently from Guizhou, southwestern China, based on a single female (which was erroneously considered a male!), and the new species was compared with the original description of *H. hirtella*. In the Somatipionina, *Horniella* can be easily recognized by the presence of a frontal fovea on the head, and lateral antebasal foveae and an antebasal sulcus on the pronotum, the lack of a mesal longitudinal sulcus on the enlarged maxillary palpomeres IV, the lack of paranotal sulci, the presence of elytral discal striae, and the abdominal tergite IV (first visible tergite) being longer than tergite V.

Additional material has now made it clear that the true existing richness of *Horniella* is much greater than what was previously known, with more than 35 new species awaiting future taxonomic work. Given that the pselaphine fauna of the Oriental region has received much less attention in comparison to other groups of the Staphylinidae, this increase in known species is not surprising. The present study contributes new taxonomic and distributional knowledge for *Horniella*, increasing the number of known species from 2 to 27, with another 11 species represented only by females being left unnamed, pending discovery of associated males and examination of aedeagi. These species (including unnamed females) are scattered in China (15), Nepal and India (2), Sri Lanka (1), Thailand (10), the Philippines (1), Malaysia (6), and Indonesia (3), while some areas usually with high pselaphine diversity, e.g. Burma, Laos, Vietnam, still haven’t received proper attention. With the completion of this revision, we hope that this work will create further interest in *Horniella* leading to a better understanding of the pselaphine diversity of the Oriental region.
material. Giulio Cuccodoro also produced the illustrations of the syntype of H. hirtella housed in MNHN. Donald S. Chandler (Durham, USA) critically read a previous draft, provided many helpful suggestions, and corrected the English narrative, which considerably improved the manuscript. Two anonymous reviewers critically read a previous version of the manuscript and provided helpful comments. The present study is supported by the National Science Foundation of China (No. 31172134) awarded to LZL.

References


