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

ZI-WEI YIN & LI-ZHEN LI<sup>1</sup>

*Department of Biology, College of Life and Environmental Sciences, Shanghai Normal University, 100 Guilin Road, Shanghai, 200234, P. R. China. E-mail: yin\_ziwei@yahoo.com*

<sup>1</sup>*Corresponding author. E-mail: pselaphinae@gmail.com*



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## Table of contents

Introduction	4
Material and methods	5
Taxonomy	5
<i>Horniella</i> Raffray	5
Key to male adults	9
Species description	11
Species of China	11
1. <i>Horniella centralis</i> Yin and Li, new species	11
2. <i>Horniella confragosa</i> Yin and Li, new species	14
3. <i>Horniella dao</i> Yin and Li, new species	17
4. <i>Horniella falcis</i> Yin and Li	18
5. <i>Horniella hongkongensis</i> Yin and Li, new species	21
6. <i>Horniella nakhi</i> Yin and Li, new species	25
7. <i>Horniella schuelkei</i> Yin and Li, new species	25
8. <i>Horniella sichuanica</i> Yin and Li, new species	28
9. <i>Horniella simplaria</i> Yin and Li, new species	28
10. <i>Horniella tianmuensis</i> Yin and Li, new species	32
<i>Horniella</i> sp. 1	32
<i>Horniella</i> sp. 2	34
<i>Horniella</i> sp. 3	34
<i>Horniella</i> sp. 4	34
<i>Horniella</i> sp. 5	34
Species of Nepal and North India	35
11. <i>Horniella himalayica</i> Yin and Li, new species	35
Species of Sri Lanka and South India	38
12. <i>Horniella hirtella</i> (Raffray)	38
<i>Horniella</i> sp. 6	41
Species of Thailand	42
13. <i>Horniella asymmetrica</i> Yin and Li, new species	42
14. <i>Horniella burckhardti</i> Yin and Li, new species	45
15. <i>Horniella intricata</i> Yin and Li, new species	47
16. <i>Horniella kaengkrachan</i> Yin and Li, new species	50
17. <i>Horniella kaosabap</i> Yin and Li, new species	51
18. <i>Horniella loebli</i> Yin and Li, new species	54
19. <i>Horniella phuphaman</i> Yin and Li, new species	56
20. <i>Horniella proluxo</i> Yin and Li, new species	60
21. <i>Horniella schwendingeri</i> Yin and Li, new species	60
<i>Horniella</i> sp. 7	63
Species of Philippines	63
22. <i>Horniella philippina</i> Yin and Li, new species	63
Species of Malaysia	65
23. <i>Horniella awana</i> Yin and Li, new species	65
24. <i>Horniella gigas</i> Yin and Li, new species	66
25. <i>Horniella pilosa</i> Yin and Li, new species	69
26. <i>Horniella smetanai</i> Yin and Li, new species	72
<i>Horniella</i> sp. 8	74
<i>Horniella</i> sp. 9	74
Species of Indonesia	74
27. <i>Horniella cibodas</i> Yin and Li, new species	74
<i>Horniella</i> sp. 10	77
<i>Horniella</i> sp. 11	77
Acknowledgments	82
References	83

## 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. confragosa* 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. khaosabap* Yin & Li, **sp. n.**, *H. loebli* Yin & Li, **sp. n.**, *H. phuphaman* Yin & Li, **sp. n.**, *H. prolixo* Yin & Li, **sp. n.**, and *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 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.

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