

A new record of *Oxynopterus harmseni* Candèze, 1885 (Coleoptera: Elateridae) from Sumatra

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This article presents new faunistic data of a very rare click-beetle *Oxynopterus harmseni* Candèze, 1885 in Sumatra, Indonesia. Photographs of the habitus and the aedeagus are provided.

Key words: fauna, click-beetles, Elateridae, *Oxynopterus*, Indonesia.

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INTRODUCTION

Studies of beetle fauna, especially in tropical regions, are regaining relevance in recent years. As a result of human influence, the areas of tropical forests are decreasing in many places, which have a negative impact on the biodiversity of the region. Many forest species are becoming rarer or disappearing. Therefore, the problems of nature protection are becoming increasingly urgent for the countries of these regions. It is necessary to think about balancing nature protection with the development of the national economy. In order to develop realistic nature protection norms, maximum information about the local fauna and flora is required. Such information is lacking for most taxa and many species have no new faunistic records of after original descriptions. Large-sized species, which inhabit large fallen trees for their development, are especially at risk.

The genus *Oxynopterus* contains 14 species in the world fauna, distributed in the Oriental region and Africa (Suzuki, 2001). Species of *Oxynopterus* are the largest click beetles in the world,

the body size of which can reach up to 70 mm (Kalshoven 1955). Accordingly, like many other tropical click beetles, the genus *Oxynopterus* is rather poorly studied. Currently, several species are mentioned in the scientific literature, however, information from different sources varies greatly, making it difficult to identify some species. Despite the lack of data on the ecology of the genus, it is definitely known that beetles of the genus *Oxynopterus* are predators of termites in tropical forests (Kalshoven 1955). Consequently, there is a high possibility that some species of this genus may be endangered, as the tropical rainforests of Oriental Region, especially in Indonesia have the highest annual deforestation of any tropical country (Margono et al. 2014). The tropical deforestation as well as the expansion of oil-palm plantations in Indonesia is one of the biggest problems for Sumatra's biodiversity (Koh et al. 2011). There are currently three species of the genus *Oxynopterus* distributed in Indonesia: *O. mucronatus* (Olivier, 1792) known from Java, *O. candezei* Fleutiaux, 1927 (primary homonym: *O. audouini* Candèze 1874),

widespread species in Indonesia, especially in Borneo and *O. harmseni* Candèze, 1885 from Sumatra.

Candèze (1885) described *O. harmseni* based on a male collected in Sipirok, pays des Battaks, N Sumatra. Suzuki (2001) redescribed this species, including illustrations of the habitus and the aedeagus. In this article, the author states that the female of this species is unknown. This author examined two males: one from Padang, W Sumatra, and one from Nias island. Currently, this species is known from Sumatra and Nias islands (Suzuki 2001). Suzuki (2011) described a new subgenus of the genus *Oxynopterus* – *Kimioelater* Suzuki, 2011, which includes two species: *O. harmseni* and *O. kurosawai* Suzuki, 2001, and also described a female *O. harmseni* collected in Solok, W Sumatra.

This article present new faunistic data about *O. harmseni* Candèze, 1885, a rare and little-known click-beetle species. The purpose of the study is to publish additional faunistic data about the this species in Sumatra, Indonesia.

MATERIALS AND METHODS

A specimen of *Oxynopterus harmseni* was collected by local collector and is currently stored in the Beetle Collection of Daugavpils University (DUBC) in Coleopterological Research Center of Institute of Life Science and Technology of Daugavpils University (Ilgas, Latvia).

A Canon 5D Mark II camera with a Tamron SP 90mm F/2.8 Di MACRO 1:1 macro lens was used to photograph the specimen. The aedeagus was photographed using a Nikon SMZ 745T stereo microscope and a Nikon Digital Sight DS-U3 microscope camera. NIS-Element

software F.30.01 was used for image processing.

RESULTS AND DISCUSSION

Oxynopterus harmseni Candèze, 1885

(Figs. 1–2)

References: Candèze 1885, 1891; Schwarz 1906; Schenkling 1925; Fleutiaux 1926; Van Zwaluvenburg 1936; Suzuki 2001, 2011.

Material examined: Indonesia: Sumatra Isl., Bengkulu, 05.2019; (1 male, local collector leg.). The habitus as in Fig. 1, and the aedeagus as in Fig. 2.

General distribution: Indonesia: Sumatra and Nias islands.

Remarks. *Oxynopterus harmseni* was originally described in 1885 from Indonesia, Sumatra, pay des Battaks (Candèze 1885). After that, it was mentioned only twice in the scientific literature (except catalogues or check-lists). It was firstly recorded 116 years after the original description (Suzuki 2001, 2011). The Table 1 shows the published data on the representation of the species in the collections, the number of specimens, sex and published records.

Regarding the occurrence of *O. harmseni* in world collections, currently only four specimens of this species (three males, one female) are available in the scientific literature, of which data on one male is presented in the present study. It is probably a very rare species whose biology and ecology are still unknown. Perhaps this species is in danger and needs real protection. Faunistic studies in Sumatra are needed to clarify the distribution and population status of this species.

Table 1. Published data on the representation of specimens of *O. harmseni* in the collections

Collections	Number of specimens, gender	Locality	References
Coll. H.Arimoto (Japan)	1, female	Solok, W.Sumatra	Suzuki, 2011
Coll. W.Suzuki (Japan)	1, male	Padang, W Sumatra	Suzuki, 2001, 2011
Coll. Natural History Museum, London, UK	1, male	Niasisl.	Suzuki, 2001
Beetles Coll. of Daugavpils University, Ilgas, Latvia	1, male	Bengkulu, Sumatra	The present study

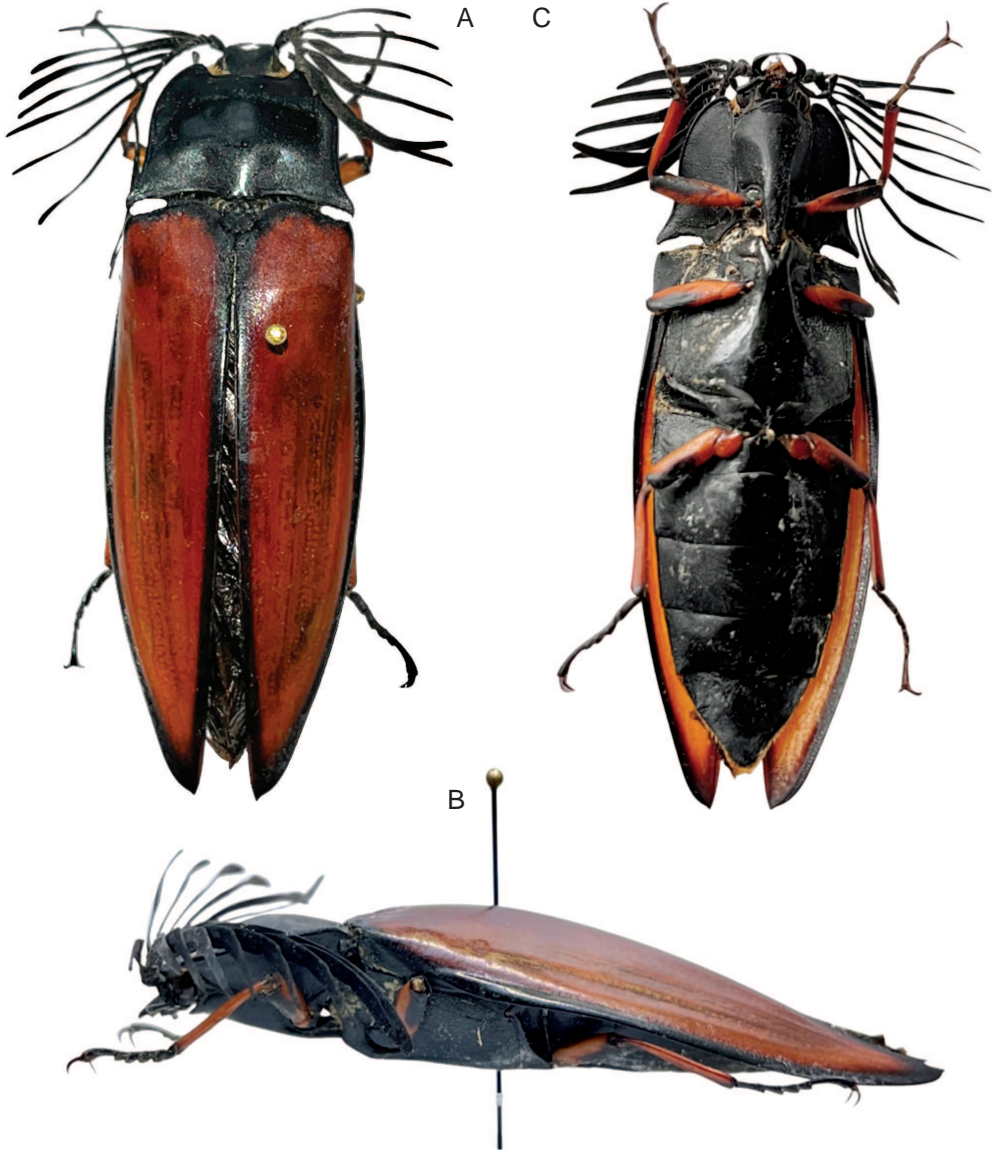


Fig. 1. *Oxynopterus harmseni* (A – dorsal view, B – lateral view, C – ventral view).

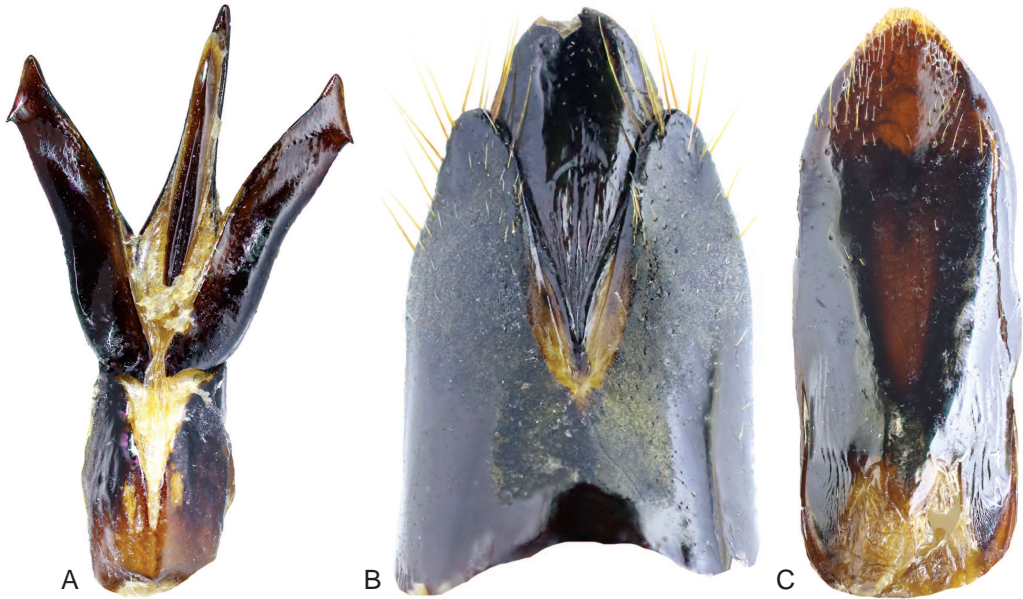


Fig. 2. Male genitalia of *Oxynopterus harmseni* (A – aedeagus, B – abdominal tergite IX–X, C – abdominal tergite XI).

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