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## THE TERMITES OF SUNDALAND: A TAXONOMIC REVIEW

Frederick Jasper Gathorne-Hardy

## ABSTRACT

This paper describes *Leucopitermes thoi* sp. nov. (found in Sumatra, Borneo and Peninsular Malaysia). It also synonymises 21 species and three genera. *Schedorhitermes sarawakensis* becomes the junior synonym of *S. malaccensis*, *S. javanicus* and *tarakanensis* are junior synonyms of *S. medioobscurus*. *Termitogeton minor* is a junior synonym of *T. planus*. *Prorhinotermes japonicus*, *krakataui*, *tibiaoensis*, *gracilis*, *tibiaoensiformis*, *ravani* and *panaitanensis* all become junior synonyms of *P. flavus*. *Odontotermes sundaicus* becomes a junior synonym of *O. billitoni*, and *O. mathuri* the junior synonym of *O. minutus*. *Termes boneensis* and *kalumpangensis* are both junior synonyms of *T. comis*, and *Pericaritermes papaspeciosus* is the junior synonym of *P. speciosus*. The genus *Coxocapritermes* becomes the junior synonym of *Pseudocapritermes*, *Malaysiocapritermes* the junior synonym of *Procapritermes* and *Snootitermes* the junior synonym of *Sabahitermes*. *Malaysiotermes sabahensis*, *malayanus*, *lowi* and *orientalis* are all junior synonyms of *M. spincephalus* and *subulioiditermes* major is a junior synonym of *S. subulioides*. This paper also provides a key to the species of the soil-feeding Nasutitermitinae of Sundaland, as well as a checklist of all species found in the region.

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**T**his paper describes *Leucopitermes thoi* sp. nov. (found in Sumatra, Borneo and Peninsular Malaysia). It also synonymises 21 species and three genera. *Schedorhinotermes sarawakensis* becomes the junior synonym of *S. malaccensis*, *S. javanicus* and *tarakanensis* are junior synonyms of *S. medioobscurus*. *Termitogeton minor* is a junior synonym of *T. planus*. *Prorhinotermes japonicus*, *krakataui*, *tibiaoensis*, *gracilis*, *tibiaoensisformis*, *ravani* and *panaitanensis* all become junior synonyms of *P. flavus*. *Odontotermes sundaicus* becomes a junior synonym of *O. billitoni*, and *O. mathuri* the junior synonym of *O. minutus*. *Termes borneensis* and *kalumpangensis* are both junior synonyms of *T. comis*, and *Pericaritermes papaspeciosus* is the junior synonym of *P. speciosus*. The genus *Coxocapritermes* becomes the junior synonym of *Pseudocapritermes*, *Malaysiocapritermes* the junior synonym of *Procapritermes* and *Snootitermes* the junior synonym of *Sabahitermes*. *Malaysiotermes sababensis*, *malayanus*, *lowi* and *orientalis* are all junior synonyms of *M. spincephalus* and *subulioiditermes major* is a junior synonym of *S. subulioides*. This paper also provides a key to the species of the soil-feeding Nasutitermitinae of Sundaland, as well as a checklist of all species found in the region.

## INTRODUCTION

The termites of the Sunda region (Sumatra, Borneo, Java, the Malay peninsula – up to the Isthmus of Kra – and associated islands) have recently had a very high collecting effort. From 1994–2001 researchers from The Natural History Museum, Universiti Malaysia

Sabah, Syiah Kuala University, Banda Aceh and the Bogor Museum have collected a very large number of termites, from throughout the region. These have been principally collected using a standardised transect sampling method, which has been shown to be quick and effective (Jones & Eggleton (2000) describe the method in full). I have been able to examine these collections, together with those at The Natural History Museum, London, at the Forest Research Centre, Kuching (Sarawak) and the Forest Research Institute Malaysia (FRIM) in Kepong (West Malaysia). In this paper I aim to make clearer the species and generic limits of some of the termites of the region, to synonymise 21 species and three genera, as well as commenting on their distributions.

## TAXONOMIC DISCUSSION

### The state of Sundan termite taxonomy

The most valuable taxonomic work is the revisionary monograph, in which species are not only described but where redundant names are also synonymised (Eggleton 1999). In recent works on Sundan termite taxonomy there have been very few synonymies, however. Three of the most influential modern works (Ahmad 1968, Ahmad & Akhtar 1981 and Thapa 1981), which between them erected ten genera and 47 species, have only one synonymy. That many species have been described (often from small sample sizes) and few have been synonymised, means that species limits are often not clear. Coherent and systematic revision of these groups is needed.

### Rhinotermitidae

#### *Schedorhinotermes* Silvestri

##### *Schedorhinotermes malaccensis* (Holmgren) 1913

*Rhinotermes* (*Schedorhinotermes*) *malaccensis* (Holmgren) 1913: 86, major and minor soldiers, workers, pl. 2, fig. 12, 19. Type locality Malacca.



*Schedorhinotermes malaccensis* Tho 1992: 75, major and minor soldiers, fig. 28.

*Schedorhinotermes sarawakensis* (Holmgren) 1913

*Rhinotermes* (*Schedorhinotermes*) *sarawakensis* (Holmgren) 1913: 87-88, major and minor soldiers, pl. 2, fig. 13, 19. Type locality Sarawak.syn.n.

*Schedorhinotermes sarawakensis* Ahmad 1965: 29-30, major and minor soldiers, fig. 23, 24.

*Schedorhinotermes sarawakensis* Thapa 1981: 135-142, major and minor soldiers, imago, pl. 45, 46, 47.

*Schedorhinotermes sarawakensis* Tho 1992: 75, major and minor soldiers, fig. 27.

The genus *Schedorhinotermes* has no morphological taxonomic character that can be effectively used to separate the species apart from size. Tho (1992, p. 75) separated *S. sarawakensis* and *S. malaccensis* only on an arbitrary size difference; *sarawakensis* has a head length of greater than 2.20 mm (major soldier) and 1.20 mm (minor soldier), while *malaccensis* has a head length of less than 2.20 mm (major soldier) and 1.20 mm (minor soldier). However, these species are highly variable, and I have found specimens from the same colony with measurements of both greater than and less than 2.20 mm in the major soldier and 1.20 mm in the minor soldier. It is effectively impossible to separate these two species as currently described. *S. sarawakensis* therefore becomes the junior subjective synonym of *S. malaccensis*.

*Schedorhinotermes medioobscurus* (Holmgren) 1914

*Rhinotermes* (*Schedorhinotermes*) *brevialatus* f. *medioobscurus* Holmgren 1914: 421 imago. Type locality Malacca.

*Schedorhinotermes medioobscurus* Ahmad 1965: 24-27, imago, major and minor soldier, fig. 18, 19, 20.

*Schedorhinotermes medioobscurus* Thapa 1985: 129-135, major and minor soldier, pl. 43, 44.