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## Morphology of new Indian/Indonesian *Gamasomorpha* and *Xestaspis* species (Araneae: Oonopidae)

BEATA EICHENBERGER<sup>1,2</sup>, YVONNE KRANZ-BALTENSPERGER<sup>2</sup>, RICARDO OTT<sup>3</sup>,  
WERNER GRABER<sup>4</sup>, WOLFGANG NENTWIG<sup>1</sup>, CHRISTIAN KROPF<sup>\*,2</sup>

<sup>1)</sup> Institute of Ecology and Evolution, University of Bern, Baltzerstrasse 6, CH-3012 Bern, Switzerland

<sup>2)</sup> Natural History Museum Bern, Department of Invertebrates, Bernastrasse 15, CH-3005 Bern, Switzerland

<sup>3)</sup> Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul, Porto Alegre, RS, Brazil

<sup>4)</sup> Anatomical Institute, Department of Topographical Anatomy and Neuroanatomy, University of Bern, Baltzerstrasse 2, CH-3012 Bern, Switzerland



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BEATA EICHENBERGER, YVONNE KRANZ-BALTENSPERGER, RICARDO OTT, WERNER GRABER,  
WOLFGANG NENTWIG & CHRISTIAN KROPF

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## Abstract

The oonopid genera *Gamasomorpha* and *Xestaspis* are very diverse and differ only by the shape of the booklung covers. New Indian/Indonesian *Gamasomorpha* and *Xestaspis* species, characterized by sternal furrows consisting of large, drop-like pits are described. Fourteen species are newly described (*G. asterobothros* n. sp., *G. kerii* n. sp., *G. petoteca* n. sp., *G. insomnia* n. sp., *G. ophiria* n. sp., *G. squalens* n. sp., *G. coniacris* n. sp., *G. raya* n. sp., *G. fricki* n. sp., *G. schmilingi* n. sp., *X. kandy* n. sp., *X. paulina* n. sp., *X. semengoh* n. sp., *X. biflocci* n. sp.); two species are redescribed (*G. seximpressa* and *G. taprobanica*). The high significance of somatic features for species identification, the degree of intraspecific variation and the complexity of the female genitalia are remarkable. The current work suggests that a phylogenetic revision of the genera *Gamasomorpha* and *Xestaspis* and an examination of the validity of the shape of the booklung covers of these two genera are needed.

**Key words:** Alpha-taxonomy, morphology, planetary biodiversity inventory (PBI), *Gamasomorpha*, *Xestaspis*, somatic characters, intraspecific variation, species specificity, complex female genitalia

## Introduction

The global biodiversity is little investigated and the description of species worldwide is highly biased with a deficit in invertebrates (Platnick 1999). The Planetary Biodiversity Inventory project (PBI) was started with the aim to investigate and revise representative taxa on a worldwide scale. Goblin spiders (Oonopidae) are one of the target taxa because the distribution range of the species tends to be extremely small, and the group thus has the potential to provide substantial amounts of information on areas of endemism on a worldwide scale (Platnick and Dupérré 2009).

Goblin spiders are distributed nearly worldwide and are very abundant in the tropics, where, in some areas and habitats, they dominate spider communities (Saaristo 2001, Fannes *et al.* 2008); they are megadiverse with 83 genera containing over 700 described species, which is estimated to be only a fifth of the total diversity within this family (Platnick 2011). Goblin spiders are small (1-4 mm), haplogyne, litter or canopy-dwelling, free hunting spiders.

The goblin spider genus *Gamasomorpha* Karsch, 1881 currently contains 56 species (Platnick 2011) with a wide distribution reaching from the USA, Panama, South America, Africa to Indonesia, China and Australia. New data suggest that the type species *G. cataphracta* Karsch 1881 is endemic to Japan and that the specimens outside