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## Description and DNA barcoding of *Ochetostethomorpha secunda*, a new species of the South African endemic burrower bug genus (Hemiptera: Heteroptera: Cydnidae) from Namibia

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### Abstract

*Ochetostethomorpha secunda* sp. nov. from Namibia, the second species of the South African endemic genus is described, illustrated, and compared with *O. nollothensis* Schumacher, 1913. The new species is the third of the subfamily Sehirinae known from Namibia. Moreover, a DNA barcode sequence was generated for this new species (827 bp of cytochrome oxidase I) and was deposited in GenBank.

**Key words:** Sehirinae, *Ochetostethomorpha*, taxonomy, endemic genus, Mopane savanna, Namibia, DNA barcode

### Introduction

Thirteen species of the family Cydnidae (*sensu* Pluot-Sigwalt and Lis 2008) have been recorded from Namibia (Hesse 1925; Linnavuori 1993; Lis 1999, 2000, 2011; Robertson 2009; Lis and Ziaja 2014), including a single species of the subfamily Amaurocorinae, i.e., *Angra ciliata* Schumacher; two species of the subfamily Cephaloctrineae, i.e., *Cephaloctrus punctipennis* Stål and *Heissocteus ernstii* J.A. Lis; nine species of the subfamily Cydninae, i.e., *Aethus hirsutus* (Hesse), *A. perosus* Stål, *Fromundus difficilis* (Stål), *Geocnethus plagiatus* (Signoret), *Lactistes falcipes* Hesse, *Macroscyrtus brunneus* (Fabricius), *M. reflexus* Signoret, *Microporus lautipennis* (Stål), *M. pallidipennis* (Reuter); and a single Sehirinae species, i.e., *Legnotus melaleucus* (Thunberg). The genus *Ochetostethomorpha* was described for a single species new to the science, i.e., *O. nollothensis* from Port Nolloth, Namaqualand in the Republic of South Africa (Schumacher 1913). A redescription of this genus and species (based on the six originally collected specimens), as well as the lectotype designation was provided by Linnavuori (1993). Subsequently, this species were reported also from Chad (Lis 1996) based on three females collected during the French *Chari-Lac Tchad 1902–1904* expedition. No other specimens of this genus have been reported since that time.

In its crucial generic characters, i.e., evaporatoria (Linnavuori 1993), metathoracic wing venation (Lis and Heyna 2001), cephalic chaetotaxy (Lis and Pluot-Sigwalt 20002), trichobothrial pattern (Lis and Hohol-Kilinkiewicz 2002), as well as tibial and coxal combs (Lis and Schaefer 2005; Lis 2010), the genus *Ochetostethomorpha* is very similar to species of the genus *Ochetostethus* Fieber, 1860.

However, both genera are easily separable by the shape of the prosternal carinae (*Ochetostethomorpha*—prosternal carinae high, ending posteriorly in a horn-like process, Fig. 1a; *Ochetostethus*—prosternal carinae narrow, posteriorly rounded, Fig. 1b).

During field studies carried out by the fourth author (RD) in Ovamboland (Namibia), two male specimens of the genus *Ochetostethomorpha* were collected; they appeared to represent a new species of this endemic genus.

collected during the French *Chari-Lac Tchad 1902-1904* expedition and housed at the Muséum national d'Histoire naturelle in Paris, were identified by Lis (1996) as *O. nollothensis*. We had a chance to verify whether they actually represent the type species of the genus; yet, they appeared to be more similar to *O. secunda* than to *O. nollothensis* (Fig. 2c). However, because males are required for the proper species identification in this genus, and these females also might represent the other unknown species, we decided not to include the females from Chad into the type-series of the newly described species.

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