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Revision of the genus *Stenogephyra* Lyneborg (Diptera: Therevidae: Phycinae)

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Abstract

The genus *Stenogephyra* Lyneborg is revised and includes seven species from the Afrotropical Region. *Stenogephyra dianeae* **spec. nov.**, ***S. janiceae* spec. nov.**, *S. namibiensis* **spec. nov.**, *S. parkeri* **spec. nov.,** and *S. schlingeri* **spec. nov.** are new to science. Each new species is described and illustrated and the pupa of *S. torrida* is described and figured. Distribution maps for each species are given. A key to the species of *Stenogephyra* is provided.

Key words: Asiloidea, stiletto fly, morphology, Afrotropical, pupa

Introduction

Lyneborg (1987) described *Stenogephyra* for two species, *S. minuta* Lyneborg and *S. torrida* Lyneborg from Namibia and South Africa. He also placed this genus correctly in the subfamily Phycinae, which has its greatest diversity in Africa. Of the six genera found in the Afrotropical Region, three are endemic, including *Stenogephyra.* These genera include 57 described species that are mainly distributed in the arid southern parts of Africa. Most of the Afrotropical Therevidae have been described and revised in a series of excellent papers by Lyneborg (1978, 1980a,b, 1987, 1988, 1989a, b), who laid down the foundation for the study of Afrotropical Therevidae. The subfamily Phycinae is found in all biogeographical regions with the exception of Australasia and is sister to all other Therevidae (Hauser 2005). The larvae of Therevidae live in loose soil and leaf litter and prey on various insect larvae, which they overpower with a strong poison. Adults are rarely collected by hand, while Malaise traps are very efficient for collecting large numbers. Because adults come to standing water, traps placed close to water often yield many specimens.

The objective of this study is to revise the genus *Stenogephyra* and make the unknown species available for future study and reference. We describe five new species from material recently collected in South Africa and Namibia, illustrate their heads and genitalia, provide a key to the identification of all species, describe the pupal stage and plot the distributions.

Methods

General morphology follows McAlpine (1981) with additional terminology from Webb and Irwin (1999) and Irwin and Lyneborg (1981a, b). Some structures of the male genitalia follow terminology from Winterton *et al*. (1999a; 2001). Terminology for structures of the female terminalia follows Irwin (1976) as modified by Winterton *et al*. (1999a–c) and Lyneborg (2001). For the pupal morphology we follow Hauser and Irwin (2003). When we examined more than one specimen, we indicate lengths as a range, followed by the mean. Setae in this paper are filiform unless otherwise stated. Setae described as elongate are equal to or longer in length than the width of the scape; those described as short are shorter than the width of the scape. The distance between the eyes was measured at the narrowest point on the frons and compared to the width of the ocellar tubercle at the level of the dorsolateral ocelli.

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