

Are hind coxal knobs a synapomorphy for therevids? An unusual new species of *Anabarhynchus* Macquart from Australia (Diptera: Therevidae: Therevinae)

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Abstract

A new species of *Anabarhynchus* Macquart is described and figured from south-eastern Queensland, Australia. *Anabarhynchus oblongicornus* sp. nov. adults are active in coastal heath and beach fore-dune habitats. This species is notable because of its greatly elongate antennae, and absence of hind coxal knob, which easily differentiates *A. oblongicornus* sp. nov. from other species in this endemic Australasian genus. The presence of the hind coxal knob has previously been considered synapomorphic for Therevidae+Apsilocephalidae. A review of the presence of this structure in the therevoid clade (Apsilocephalidae+Scenopinidae+Therevidae+Ocoidae) indicates that it is actually plesiomorphic for the entire group, with various examples of secondary reduction or absence in all higher scenopinids and some therevids.

Key words: Therevidae, Diptera, Stiletto-fly, Asiloidea

Introduction

Stiletto-flies (family Therevidae) are found in a variety of habitats ranging from rainforest to desert, but are generally most diverse in arid regions where the sandy, friable soils provide a suitable habitat for their fossorial larvae. The preference for sandy soils has meant that not only desert regions, but also coastal dune systems and fore-shores are inhabited by therevids, especially by certain species of the endemic and species-rich Australasian genus *Anabarhynchus* Macquart. Adults are nectar feeders, while the larvae are voracious predators of soil arthropods, and are characterised by a secondarily segmented abdomen and an apically spatulate tentorial rod (Irwin & Lyneborg 1981).

The Australasian therevid fauna is represented by two of the three currently recognised subfamilies: Therevinae and Agapophytinae. Therevinae are a diverse, cosmopolitan