



## Revision of the fishfly genus *Platychauliodes* Esben-Petersen (Megaloptera: Corydalidae) endemic to South Africa

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### Abstract

The genus *Platychauliodes* Esben-Petersen is a group of fishflies endemic to South Africa. The group has not received attention in over 40 years. All three species of *Platychauliodes* are redescribed in detail and a key to the adults presented. *Chauliodes tenuis* McLachlan, 1869 and *Platychauliodes woodi* Barnard, 1931 are treated as junior synonyms of *P. pusillus* (McLachlan, 1867).

**Key words:** Chauliodinae, *Platychauliodes*, Megaloptera, South Africa

### Introduction

The fishfly genus *Platychauliodes* is a small group endemic to South Africa. Since Esben-Petersen (1924) established the genus, few papers have dealt with it. Most information on *Platychauliodes*, including classification, descriptions, and genitalic illustrations, can be obtained from two early revisions of the South African Megaloptera (Barnard 1931, 1940), in which three new species of *Platychauliodes* were described: *P. capensis* Barnard, 1931, *P. woodi* Barnard, 1931, and *P. thornei* Barnard, 1940. In addition, *Chauliodes pusillus* McLachlan, 1867 was first hesitantly transferred to the Australasian genus *Archichauliodes* (van der Weele 1909) and then synonymized with *C. tenuis* McLachlan, 1869 under *Platychauliodes* with no reference to synonymy (Kimmins 1930; Barnard 1931). Due to the inaccessibility of the types of these two species at the time, Barnard (1931) noted that their identity remained obscure, with *C. pusillus* tentative placement in *Platychauliodes* due mainly to its resemblance to *P. tenuis* and the lack of adequate type locality information (“*Hab. in India orientali??*”: McLachlan 1867). Kimmins (1970) considered that *C. pusillus* and *C. tenuis* belong to *Platychauliodes* based on the examination of the primary types, but he did not verify the validity of them. Except for Esben-Petersen (1924), Barnard (1931, 1940), and Kimmins (1930, 1970), a few studies have provided general introductions and species checklists (e.g. Mansell, 1985, 2003), but no studies provide new or updated information on *Platychauliodes* until now. Compared with the studies on Megaloptera from the areas beyond Africa (Contreras-Ramos 1998, Theischinger 2000, Yang & Liu 2010), the existing knowledge of Afrotropical Megaloptera is limited, some of which being obsolete. For *Platychauliodes*, the terminology used in the original descriptions is quite different from that used currently, and the genitalic figures are too simple to fully describe some significant structures (e.g. the male tenth sternum). The genus *Platychauliodes* is therefore still a poorly studied and long neglected group without clear description, classification, and phylogenetic placement.

Recently, we examined all the megalopteran specimens deposited in the collection of the Iziko South African Museum (SAM, Cape Town), the Albany Museum (AMGS, Grahamstown) as well as a few specimens in some European Museums, including all the primary types of *Platychauliodes* species. In this paper, three species, as all members of *Platychauliodes*, are keyed, illustrated, and redescribed in detail. The monophyly of *Platychauliodes* is also discussed based on relationships to other genera.