



Two new species of *Pliocaloca* Neboiss (Trichoptera: Calocidae) from eastern Australia, with descriptions of the immature stages of one species

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Abstract

The adult males of *Pliocaloca kleithria* sp.nov. and *Pliocaloca fidesria* sp.nov. are described. The major diagnostic feature distinguishing these two species is the shape of the slender process arising from the inferior appendage. In *P. fidesria* this process is abruptly curved outwards at about 1/3rd its length, while in *P. kleithria* it is gently curved along its length. The presence of a sclerotised knob on the underside of the fore wing, arising from vein Cu_1 , suggests that these two species are more closely allied with *P. dasodes* than with other species of *Pliocaloca*, in which this knob is lacking or arises from a different vein.

The immature stages of *P. kleithria* are described, providing the first association and detailed description of the immature stages of a *Pliocaloca* species. Larvae are distinguished from other genera of Calocidae by having a covering of small spinules on the dorsum of the head and pronotum.

Key words: caddisfly, larva, pupa, taxonomy, Australia

Introduction

The genus *Pliocaloca* Neboiss was first described by Neboiss in 1984. Until now, the genus has comprised 3 species known only from north Queensland; *P. mucronata* Neboiss, *P. fastigiata* Neboiss, and *P. dasodes* Neboiss. A larva from northern New South Wales and southern Queensland has been identified and associated with an unknown species of *Pliocaloca* by Jackson (1998), who assigned the voucher collection name AV1. While it is likely that this larva corresponds to either of the two new species described here, unfortunately the current location of the specimens originally used to associate AV1 with *Pliocaloca* is unknown. This paper provides the first detailed descriptions of the immature stages of a new *Pliocaloca* species.

Materials and methods

Adult specimens from the Museum of Victoria, Melbourne, were examined. Pupae and larvae were collected by John Dean and Ros St Clair. Specimens are deposited in the Museum of Victoria, Melbourne (MV) and the Australian Museum, Sydney (AM).

Adult genitalia of the specimens illustrated were cleared in KOH. Larval sclerites were extracted from pupal cases and used to associate paratype male pupae with larvae. Keys used to identify specimens were those of Jackson (1998) and Neboiss (1986, 1992). Terminology of wing venation follows Holzenthal *et.al.* (2007). The extreme modification of wing venation of these species makes identification of individual veins difficult. Labels on the illustrations of the wings indicate my interpretation of the main veins. Terminology of larval characters follows that of Jackson (1998), and terminology of adult characters follows those of Holzenthal *et.al.* (2007), CSIRO (1991), and Neboiss (1992).