Article

Revision of the genus *Caenota* Mosely (Trichoptera: Calocidae), with descriptions of 2 new species and the larva of *C. nemorosa* Neboiss

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Abstract

The caddisfly genus *Caenota* Mosely 1953 (in Mosely & Kimmins 1953) currently contains 5 species known from eastern Australia. *Caenota* is distinguished from other Calocidae genera by having adult males with greatly expanded maxillary palpi and a large membranous process associated with the antennal scape. Of the 5 described species, the larvae of only 1 is known. Here, we describe 2 new species, *Caenota cudonis* **sp. nov.** and *C. equustagna* **sp. nov.**, from adult, larval, and pupal material. Also, we describe for the first time the larva of *C. nemorosa* Neboiss. These descriptions increase the number of *Caenota* species to 7 and the number of associated and described larvae to 4. This paper also provides descriptions of features associated with the adult head capsule of all described species of *Caenota*. Each of the known species is considered, with illustrations and re-descriptions of these features given.

Key words: caddisfly, pupa, taxonomy, Australia, cytochrome oxidase sub unit I (COI), elongation factor-1 alpha (EF1α), Cadherin (CAD), RNA polymerase sub unit 2 (POL2)

Introduction

Species of *Caenota* Mosely 1953 (in Mosely & Kimmins 1953) are medium-sized caddisflies and the largest members of the family Calocidae Ross 1967. Their range extends throughout eastern Australia from Tasmania to North Queensland (Neboiss 1984). The males of *Caenota* are conspicuous, with greatly expanded maxillary palpi and membranous expansions associated with each antennal scape, rising above the head in a cap-like fashion.

The genus *Caenota* was originally established in the family Sericostomatidae Stephens 1836 to accommodate 2 species: *C. plicata* Mosely 1953 (in Mosely & Kimmins 1953) and *C. simulans* Mosely 1953 (in Mosely & Kimmins 1953). These species were later transferred to Calocidae, based on having a spur count of 2:2:4. Subsequently, *C. galeata* Neboiss 1984, *C. nemorosa* Neboiss 1984, and *C. monteithi* Neboiss 1984, were added from North Queensland.

Of the 5 known species, the only associated larva belongs to *C. plicata*. From the literature it is evident that this association was known within taxonomic circles before the larva was officially described, highlighting one of the facets of what has become known as the taxonomic impediment. Drecktrah (1984) reared a number of caddisfly species from larvae to adults, including *C. plicata*. In his paper he described the immature stages of *Alloecella grisea* Banks 1939, and mentioned his intent to provide descriptions of the immature stages of the other species in later publications. Dean and Cartwright (1987) reported collecting the larva of *C. plicata* in a Victorian stream. Jackson (1991) provided descriptions and illustrations of the larva in her dissertation, but it was not until 7 years later (Jackson 1998) that a description was supplied in a professional journal; even then, the details of how the association of larva and male was accomplished were lacking.

Many taxonomic descriptions of Trichoptera rely heavily on characteristics of the genitalia and wings for