*Zootaxa* 2415: 1–21 (2010)
www.mapress.com/zootaxa/


**Article**

ISSN 1175-5326 (print edition)
**ZOOTAXA**
ISSN 1175-5334 (online edition)

# Descriptions of 2 new genera and 13 new species of caddisflies from Australia (Trichoptera: Ecnomidae)

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## Abstract

Descriptions, keys and a checklist are provided for males of 13 new species of ecnomid caddisflies from Australia. Females of 10 of these species are also described. The species are placed in two new genera, *Absensomina* **gen. nov.** and *Wellsomina* **gen. nov.** The new species are: *A. weara*, *W. ampulla*, *W. baru*, *W. bucera*, *W. furca*, *W. gumurr*, *W. jalgoodoo*, *W. mattina*, *W. naumanni*, *W. saeta*, *W. stuarti*, *W. tam* and *W. thigi*. Generic separation is based on female genitalic and wing features, supported by small differences in head warts and male genitalic characteristics. Both of the genera treated here are endemic to northern Australia.

**Key words:** Ecnomidae, caddisflies, *Absensomina*, *Wellsomina*, Australia

## Introduction

The recent review of Australian non-*Ecnomus* genera of the caddisfly family Ecnomidae is continued in this paper: *Daternomina* Neboiss, *Ecnomina* Kimmins and *Austrotinodes* Schmid were revised by Cartwright (2008; 2009) based on adult females and males and for these genera; associated larvae provided critical insight for clarification of relationships. However, confirmed larvae have not been collected for the 2 new genera, which are based mainly on female genitalic and wing features. As with other ecnomid species, and as might be predicted for a group with predatory larvae, adults are seldom collected in large numbers although they are often widespread.

The male genitalia of *Wellsomina* species superficially seem most closely to resemble those of *Ecnomina kavinia* Ward and Shefter from New Caledonia. *Ecnomina kavinia* males share with *Wellsomina* similar inferior appendages, which are fused basally and nearly always have a pair of processes distally. The 2 taxa also have forewing forks 2 and 3 relatively short. *Wellsomina* species differ from *E. kavinia* in several hind wing character states including the relative length of fork 2 and the presence of a humeral lobe. The wing venation of *Absensomina* seems most similar to the recently described genus *Agmina* Ward and Schefter (2000), with 19 species from New Caledonia. Both *Absensomina* and *Agmina* have the same wing forks, forewing forks 2, 3, 4 and 5, and hind wing forks 2 and 5. *Agmina* males have several specialised genitalic structures that *Absensomina* males lack, notably “sternal processes” on abdominal segment IX and “phallic struts” supporting the phallus. A final decision on how closely these genera are related will probably require new information from other life stages, especially females and larvae, which are predominately unknown or unconfirmed at this stage. The descriptions of the 2 new genera and 13 new species in this paper takes the Australian ecnomid fauna to 6 genera and 116 species and the world ecnomid fauna to a relatively large total of at least 12 genera and 415 species.

Wells (1991) partly figured 7 undescribed species of *Ecnomina* in a key to Northern Territory (Alligator Rivers Region) Trichoptera of which 3, or possibly 4 are species of *Wellsomina* (*Ecnomina* spp H, B, J and A). Wells and Cartwright (1993) listed 6 undescribed species of *Ecnomina* amongst Trichoptera collected from Cape York Peninsula, North Queensland. These 6 species included *Absensomina weara* (as *Ecnomina* A), and two species of *Wellsomina* (as *Ecnomina* sp. B (NT) and J (NT)). Walker *et al* (1995) and Cartwright (1997)

*Accepted by J. Morse: 6 Feb. 2010; published: 31 Mar. 2010*