

## Reevaluation of the Genera *Compsoeuria* Eaton and *Trichogenia* Braasch & Soldán (Ephemeroptera: Heptageniidae)

J.M. WEBB<sup>1</sup>, D. BRAASCH<sup>2</sup> & W.P. MCCAFERTY<sup>3</sup>

<sup>1</sup>Department of Entomology, Purdue University, West Lafayette, Indiana 47907-2089, USA.

<sup>2</sup>Dipl.-Biologe, Kantstrasse 5, 14471 Potsdam, Germany.

<sup>3</sup>Department of Entomology, Purdue University, West Lafayette, Indiana 47907-2089, USA.

### Abstract

*Compsoeuria* Eaton (Ephemeroptera: Heptageniidae) has been placed in both the Heptageniinae Needham tribes Compsoeuriini Wang & McCafferty and Ecdyonurini Ulmer by different mayfly workers. In order to clarify the phylogenetic position of the genus, we examined adult material of its type species (*C. spectabilis* Eaton), larvae originally described as *C. spectabilis*, and material of potentially related species. We determined that the larva originally described as *C. spectabilis* was incorrectly associated with adults and is actually a species of *Trichogenia* Braasch & Soldán. Herein we name this species *Trichogenia ulmeri* N.SP. Braasch & Webb. The adults of *C. spectabilis* possess Ecdyonurinae characters and therefore *Compsoeuria* and Compsoeuriini are transferred to Ecdyonurinae. In order to maintain the stability of genera within Heptageniinae, we establish Trichogeniini Webb & McCafferty N.TRIB. *Compsoeuriella* Ulmer and *Notonurus* Crass are confirmed to be synonyms of *Compsoeuria*. *Heptagenia lieftincki* Ulmer is shown to be a member of *Compsoeuria* [= *Compsoeuria lieftincki* (Ulmer) N.COMB.]. *Compsoeuria* is also shown to be distinct from *Thalerosphyrus* Eaton and several species previously placed in *Thalerosphyrus* are moved to *Compsoeuria*, for example *T. josettae* [= *Compsoeuria josettae* (Sartori & Elouard) N.COMB.]. The southeast Asian genus *Trichogenia* is reviewed; *Trichogenia hubleyi* Webb & McCafferty N.SP. is described from larvae from Celebes and Borneo, Indonesia; and *Heptagenia nasuta* Ulmer is provisionally transferred to *Trichogenia* [= *Trichogenia nasuta* (Ulmer) N.COMB.]

**Keywords:** Ephemeroptera; Heptageniidae; Ecdyonurinae; Heptageniinae; *Trichogenia*; *Compsoeuria*; *Compsoeuriella*; *Thalerosphyrus*; systematics; new species