



### New synonyms in the Australian micro-caddisfly fauna (Trichoptera: Hydroptilidae)

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Discovery of new Trichoptera species in collections from mainland Australia is not unusual, and, currently a number of undescribed species are known in existing collections. However, few new species are likely to be found in Tasmania, the caddisfly fauna of which was collected intensively and formed the basis of a PhD study by Neboiss (1977). Subsequent to Neboiss' work, several new species of Hydroptilidae — micro-caddisflies — were described from Tasmania by Wells (1999), and others recorded from the island (Neboiss 1981; Wells 1979a,b,c, 1980, 1981, 1985, 1997). Later, Neboiss (2003) revised the fauna, describing 17 new species collected over the years since his thesis work, none of them hydroptilids. More recently, Oláh and Johanson (2010) described two new micro-caddisfly species based on holotypes from Tasmania, for one of which a paratype is listed from SE Queensland; they also described three other new species from Queensland. Unfortunately, in preparing their paper, it seems that these authors failed to seek access to the extensive hydroptilid material in the collection of Museum Victoria, or the smaller collection in the Australian National Insect Collection, or to types of any closely similar Australian species. Nor, it appears, did they look closely at their specimens since at least four of these new names are found, on examination of the holotypes on which they are based, to be junior synonyms of established species. This short note presents the bases for decisions to suppress in synonymy the following four names of Olah and Johanson (2010): *Helleythira hiana*, *Oxyethira elora*, *Orthotrichia lapka*, and *O. capa*.

#### *Helleythira simplex* (Mosely)

*Xuthotrichia simplex* Mosely, 1934: 145

*Helleythira valleculea* Neboiss, 1977: 42, figs 182–187

*Helleythira simplex* (Mosely, 1934); Wells 1979b: 315

*Helleythira hiana* Olah & Johanson, 2010, syn. nov.

*Helleythira hiana* Olah and Johanson, 2010, is based on a single specimen from the Brisbane area, in south-eastern Queensland. On close examination of the holotype, it is evident that it is referable to *Helleythira simplex* (Mosely, 1934). Possibly the authors of the new name were misled by the various illustrations of this species (Mosely 1934; Neboiss 1977; Wells 1979b) all of which show some variation, due mainly to the degree of retraction of abdominal segment IX within VIII, as well as to interpretation by the authors of the complicated male genitalic structures. *Helleythira simplex* is a widespread species, occurring throughout Tasmania and from the Mt Lofty Ranges of South Australia through the wetter southeastern and eastern parts of mainland Australia almost to as far north as Townsville in east-central Queensland. It is often abundant, especially in slower, more eutrophic streams and in ponds and lakes, the larvae feeding on filamentous green algae. The illustrations of Mosely (1934) resemble most closely those of Olah and Johanson (2010), being more diagrammatic than those of the other authors. In diagnosing *H. hiana*, Olah and Johanson compare their singleton male with the male of *Helleythira sheldoni* Wells, 2005. However, although the two show similarities in general arrangement of their genitalia, *H. sheldoni* lacks the broad ridge-like structure on the dorsal side of each inferior appendage that is so characteristic of *H. simplex*, and is seen in *H. hiana*.