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Notes on the Australian Anacaenini (Coleoptera: Hydrophilidae): description of male of *Phelea breviceps* Hansen and unravelling the identity of *Crenitis neogallica* Gentili

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Abstract

The holotype and additional specimens of the Tasmanian endemic *Phelea breviceps* Hansen, 1999, and the holotype of *Crenitis neogallica* Gentili, 1996 were examined in order to explore their generic and tribal placement. The morphology of *Phelea* is illustrated in detail, its male genitalia are described for the first time, and it is confirmed as a member of Anacaenini, sharing numerous characters with *Crenitis* Bedel, 1881 and the New Zealand endemic *Horelophus walkeri* Orchymont, 1913. *Crenitis neogallica* is removed from Anacaenini and transferred to the rygmodine genus *Pseudohydrobius* Blackburn, 1898 (as *Pseudohydrobius neogallicus* (Gentili, 1996) **comb. nov.**) and its holotype is illustrated. The genus *Crenitis* is hence removed from the Australian fauna.

Key words: Hydrophilidae, Chaetarthriinae, Rygmodinae, *Crenitis*, *Phelea*, *Pseudohydrobius*, morphology, new combination, Australia, Tasmania, New South Wales

Introduction

The tribe Anacaenini is a world-wide monophyletic group of hydrophilid beetles (Short & Fikáček 2013) with ca. 200 described species, the vast majority of which belongs to two genera, *Anacaena* Thomson, 1859 and *Crenitis* Bedel, 1881. The tribe was first defined by Hansen (1991) and recently underwent drastic changes: two genera were removed from the tribe (*Paracymus* Thomson, 1867 and *Notionotus* Spangler, 1972), two moved into it from elsewhere (*Horelophus* Orchymont, 1913, *Pseudorygmodus* Hansen, 1999) and a few genera were either synonymized with *Anacaena* (*Grodum* Hansen, 1999, *Enigmata* Hansen, 1999 and *Paramacaena* Blackburn, 1888) or conversely resurrected from synonymy (*Crenitulus* Winters, 1926) (Komarek & Beutel 2007, Short & Fikáček 2013, Fikáček & Vondráček 2014). The main reason for the previous confusion and a high number of recent changes is the lack of unique or easy-to-observe adult synapomorphies of the tribe, despite the fact its monophyly is well supported by molecular data and larval morphology. This is also the reason why some anacaenine genera (*Pseudorygmodus*, *Horelophus*) were previously classified in Rygmodinae, as members of the latter subfamily also frequently have a very generalized adult morphology. In the course of the revising of the Rygmodinae we decided to examine rare Australian anacaenine taxa, the Tasmania endemic genus *Phelea* Hansen, 1999, and the only Australian representative of *Crenitis*, *C. neogallica* Gentili, 1996, in order to confirm their tribal placement. Results of this study are summarized here.