



Article

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Further studies on the fairy shrimp genus *Branchinella* (Crustacea: Anostraca: Thamnocephalidae) in Australia, with descriptions of five new species

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Abstract

Branchinella is the most speciose anostracan genus in Australia and is one of a few speciose fairy shrimp genera in the world. Two new species, *B. erosa* **sp. nov.** and *B. hearnii* **sp. nov.** live in hyposaline waters in western Western Australia and three new species, *B. herrodi* **sp. nov.**, *B. anatinorhyncha* **sp. nov.** and *B. minmina* **sp. nov.** are described from fresh waters in northern Queensland. *Branchinella clandestina* is synonymised with *B. affinis*, so that the total Australian species of *Branchinella* is now 39. Significant new distribution records are given for *B. affinis*, *B. compacta* and *B. simplex*. New morphological data is provided for *B. compacta* and *B. wellardi* to differentiate them from *B. hearnii* **sp. nov.** and *B. herrodi* **sp. nov.** respectively. *Branchinella compacta* and *B. hearnii* **sp. nov.** may demonstrate lock and key amplexus, while multiple tumidities on female *B. erosa* **sp. nov.** suggest possible sensory selection by males.

Key words: speciose genera, frontal appendage, tumidities, lock and key amplexus, Western Australia, north Queensland

Introduction

Branchinella Sayce 1903 is proving to be one of the few speciose genera of Anostraca in the world, with two subgenera: *Branchinella* sensu stricto and *Branchinella* (*Branchinellites*) Daday, 1910 (Rogers, 2006). To date there are 35 described species of *Branchinella* (*Branchinella*), all endemic to Australia (Geddes, 1981; Timms, 2001, 2002, 2005, 2008, 2012; Timms and Geddes, 2003). *Branchinella* (*Branchinellites*) is represented by six valid species in Africa and Eurasia (Rogers, 2006 and pers.comm.). The Australian species richness has only