

A List of the Recent Clam Shrimps (Crustacea: Laevicaudata, Spinicaudata, Cyclestherida) of Australia, Including a Description of a New Species of *Eocycticus*

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ABSTRACT. Since 1855, 28 species of clam shrimps (Laevicaudata, Spinicaudata, Cyclestherida) have been described from Australia, although three have been synonymized. One new species of *Eocycticus* is described herein. It has a distinctive rostrum that is slightly different in male and females and the clasper has a three segmented palp. With this new species the Australian fauna comprises 26 valid species of clam shrimps. We provide a list of all described species, including their known localities and a key to the genera of Australian clam shrimps.

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Large branchiopods are an important element of Australia's temporary inland waters. Knowledge about the taxonomy of the three large branchiopod groups differs, however. Among the Notostraca, both known genera, *Lepidurus* and *Triops*, are represented by a single species (Longhurst, 1955). The anostracan fauna is relatively simple, being dominated by *Branchinella* and the endemic *Parartemia*, but with three other genera (Williams, 1980; Timms, 2004). *Branchinella* is represented by 31 species (Geddes, 1981; Belk, 1995; Timms, 2001, 2003, 2004, 2005; Timms & Geddes, 2003). *Parartemia* has eight described and at least seven undescribed species (see Geddes, 1973; Remigio *et al.*, 2001; Savage, 2003; Timms, 2004). Two species of *Artemia* (*A. franciscana* and *A. near parthenogenetica*) have been reported from Australia, though at least one, and possibly both, were introduced (Williams & Geddes, 1991;

McMaster *et al.*, in press). Recently, the presence of *Streptocephalus* in Australia was confirmed with the description of a new species and the detection of others (Herbert & Timms, 2000; Timms, 2004). In addition, a new branchiopodid genus has been discovered (Brendonck and Timms, unpublished data). In comparison to Notostraca and Anostraca, the taxonomic knowledge of Australian clam shrimps (conchostracans) is less complete despite having the same interest for ecologists (e.g., Bishop, 1967c; Williams, 1980; Timms, 1993, 1999; Bunn & Davies, 1999; Timms & Richter, 2002; Timms & Sanders, 2002). Because the Conchostraca is paraphyletic (Martin & Davis, 2001; Braband *et al.*, 2002) this taxon name is not used and is replaced by the Laevicaudata, Spinicaudata and Cyclestherida, and the popular name of "clam shrimps" is used for all three groups.

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