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On the identity of *Cancer urania* Herbst, 1801 (Crustacea: Decapoda: Brachyura: Leucosiidae)

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Abstract

Cancer urania Herbst, 1801, is the type species of the leucosiid genus *Coleusia* Galil, 2006. Its identity has been a subject of confusion due to various taxonomical and nomenclatural issues. We redescribe the species, discuss its complex history and taxonomy, and a female syntype is designated as the lectotype of the species to clarify any lingering ambiguities concerning the type material of *Cancer urania* Herbst, 1801.

Key words: *Coleusia urania*, *Leucosia grandis*, *Leucosia anatum*, taxonomy, nomenclature, Leucosiidae

Introduction

The subfamily Leucosiinae Samouelle, 1819, in the Leucosiidae Samouelle, 1819, comprises six genera and 72 nominal species (cf. Ng *et al.* 2008). All members of this subfamily of Indo-West Pacific crabs possess a distinctive thoracic sinus. One of the largest sized species is *Cancer urania* Herbst, 1801, the type species of *Coleusia* Galil, 2006. *Coleusia* was established by Galil (2006) in one of a series of papers revising *Leucosia* Weber, 1795, and is characterised by having a deep thoracic sinus that is anteriorly defined by an overhanging margin of the pterygostomian region, the third to fifth male abdominal somites fused, and the shaft of the male first gonopod coiled three times on its axis, bearing distally a setose lobe with an elongated process. Four other species are currently recognized: *C. biannulata* (Tyndale-Biscoe & George, 1962) (= *Leucosia longifrons neocaledonia* Alcock, 1896, pre-occupied name), *C. magna* (Tyndale-Biscoe & George, 1962), *C. rangita* Galil, 2006, and *C. signata* (Paul'son, 1875) (= *Leucosia fuscomaculata* Miers, 1877).

A conjunction of taxonomical and nomenclatural issues nevertheless trouble the name *C. urania*. K. Sakai (1999: 19, pl. 7F), in a study of Herbst's type material, listed and photographed a female specimen of *Cancer urania* Herbst, 1801, and remarked "*Cancer urania* Herbst, 1801 becomes a junior synonym of *Cancer anatum* Herbst, 1783". Chen & Sun (2002: 422, fig. 190, pl. 16.5–6) accepted K. Sakai's designation and recognized a species, "*Leucosia grandis*, Chen et Türkay, (in press)" and assigned to it most of the old records previously identified with *C. urania* Herbst, 1801. Galil (2006) considered *L. grandis* Chen & Türkay, in Chen & Sun, 2002, as a junior subjective synonym of *C. urania* (Herbst, 1801). Galil (2006) also regarded "*Leucosia anatum* of K. Sakai (1999) as different from *C. anatum* Herbst, 1783. This synonymy was followed by Ng *et al.* (2008).

The identity of *Cancer urania*, however, was not as clear as K. Sakai (1999) implied at least on the basis of the type, and while *L. grandis* was recognized as an available name by Chen & Sun (2002), Galil (2006) and Ng *et al.* (2008), the name is unavailable under the current zoological code (ICZN 1999).

We herein discuss the complex history and taxonomy of *C. urania* Herbst, 1801, and show that it differs from *C. anatum* Herbst, 1783. This is important as *C. urania* Herbst, 1801, is the type species of *Coleusia* Galil, 2006.

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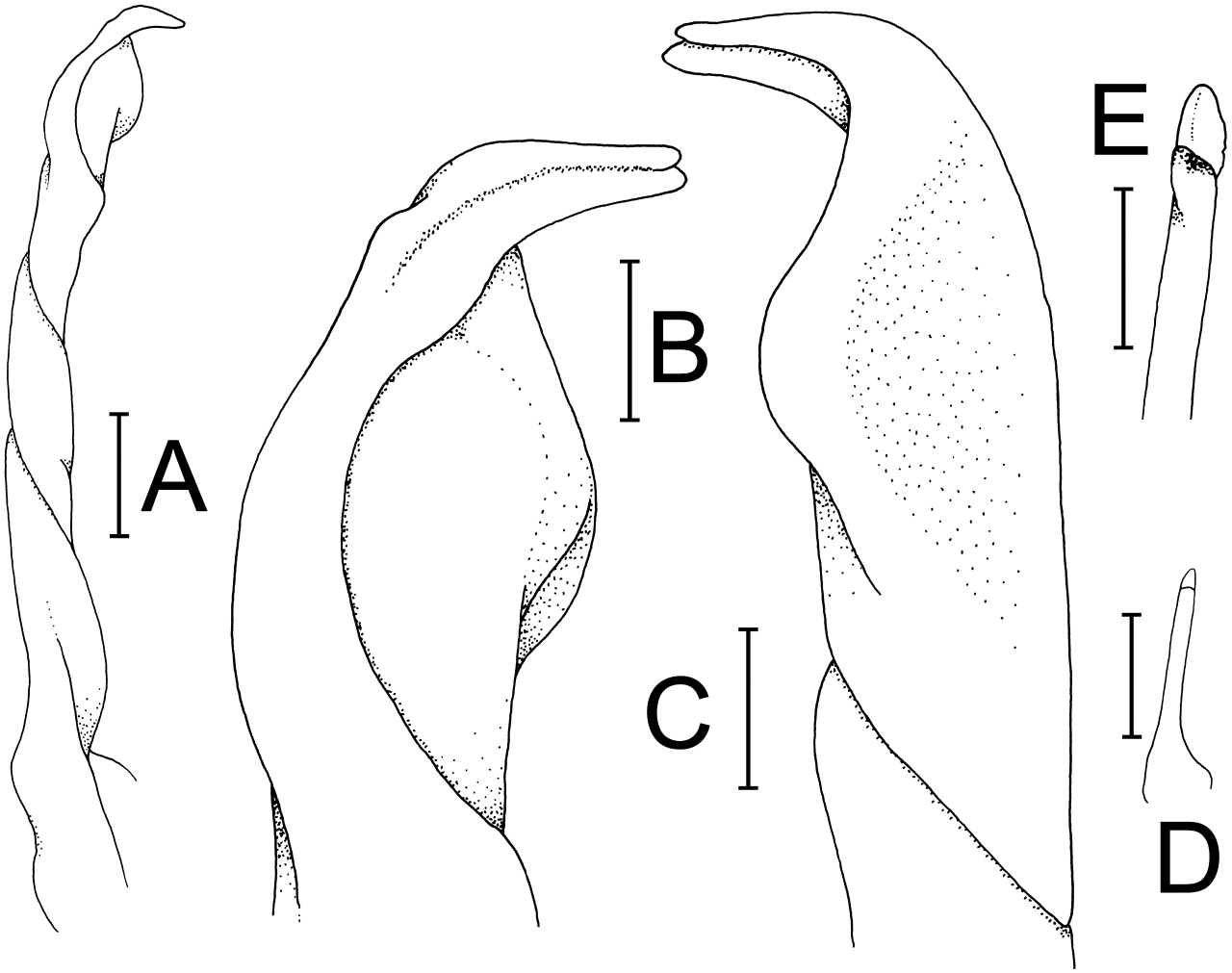

FIGURE 6. *Coleusia urania* (Herbst, 1801), male (40.3 × 36.5 mm) (ZRC 2001.0045), gonopods. A, left G1; B, C, distal half of left G1; D, left G2; E, distal part of left G2. Setae of all structures denuded. Scales: A, D = 3.0 mm; B, C, E = 1.0 mm.

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