



The systematic status of two enigmatic ocypodoid crabs, "*Paracleistostoma dentatum* Tesch, 1918, and "*Paracleistostoma fossulum* Barnard, 1955 (Crustacea: Decapoda: Brachyura)

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Abstract

The systematic positions of two ocypodoid crabs, *Paracleistostoma dentatum* Tesch, 1918, and *P. fossulum* Barnard, 1955, have been uncertain because each were described from single female specimens, with Ng *et al.* (2008) referring them provisionally to the Dotillidae and Varunidae, respectively. Števíć (2011) recently established two new genera, *Lazarocleistostoma* Števíć, 2011, and *Brankocleistostoma* Števíć, 2011, for *P. dentatum* Tesch, 1918, and *P. fossulum* Barnard, 1955, respectively. He also recognised two new families, Lazarocleistostomidae Števíć, 2011, and Brankocleistostomidae Števíć, 2011, for these genera. Examination of the types and fresh material of *P. fossulum* indicates that while both genera are valid, the families are not justified. *Brankocleistostoma* is a dotillid; while *Lazarocleistostoma* is a varunid (subfamily Gaeticinae). The tribe Gopkittisakini Števíć, 2011 (type genus *Gopkittisak* Naruse & Clark, 2009), is also shown to be a junior synonym of Gaeticinae.

Key words: Decapoda, Crustacea, Brachyura, Ocypodoidea, *Paracleistostoma dentatum*, *Paracleistostoma fossulum*, taxonomy

Introduction

The taxonomic status of two species of thoracotreme crabs, *Paracleistostoma dentatum* Tesch, 1918, and *Paracleistostoma fossulum* Barnard, 1955, has been uncertain. The composition of the camptandriid genus *Paracleistostoma* De Man, 1895 (type species *P. depressum* De Man, 1895), has changed substantially over the years and currently contains eight species (Ng *et al.* 2008). The remaining species have been revised and/or transferred to other genera (Manning & Holthuis 1981; Al-Khayat & Jones 1996; Ng *et al.* 2008, 2010, 2011). The identities of *P. dentatum* and *P. fossulum* are problematic because both were described on the basis of single female specimens and apparently have never been collected since. They also have a suite of seemingly “aberrant” features that made their classification in known genera and families difficult.

Manning & Holthuis (1981) explicitly stated that both species were not camptandriids but did not formally transfer them elsewhere. Ng *et al.* (2008) discussed both species at length. They argued that while it was very clear that neither species belonged to *Paracleistostoma* nor were they camptandriids, they preferred not to refer them to new genera until males became available. They, however, commented that the adult female characters showed that *P. dentatum* Tesch, 1918, was almost certainly a member of the Dotillidae Stimpson, 1858, while *P. fossulum* Tesch, 1918, belonged to the Varunidae H. Milne Edwards, 1853, and as such transferred them to these families.

Števíć (2011) recently decided that *P. dentatum* Tesch, 1918, and *P. fossulum* Barnard, 1955, should be referred to their own genera, *Lazarocleistostoma* Števíć, 2011, and *Brankocleistostoma* Števíć, 2011, respectively. In addition, he also established two new families, Lazarocleistostomidae Števíć, 2011, and Brankocleistostomidae Števíć, 2011, for these genera. Although the genera and families are both available under the current zoological code (ICZN 1999), no clear explanations were provided as to why these new taxa were needed. Furthermore, there was no indication that any material was examined, and he did not refer to the various discussions and/or hypotheses by other authors about these taxa.