



## Remarks on Inachoididae Dana, 1851, with the description of a new genus and the resurrection of Stenorhynchinae Dana, 1851, and recognition of the inachid subfamily Podochelinae Neumann, 1878 (Crustacea, Decapoda, Brachyura, Majoidea)

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### Abstract

A new inachoidid genus *Paulita* **n. gen.** is established for *Paradasygyius tuberculatus* (Lemos de Castro, 1949), from the western Atlantic. *Paulita tuberculata* (Lemos de Castro, 1949) **n. comb.** differs from *Paradasygyius depressus* (Bell, 1835), from the eastern Pacific, the type species and only remaining species of *Paradasygyius* Garth, 1958, by a number of characters mainly related to the carapace, thoracic sternum, abdomen, and first gonopod. *Paulita* **n. gen.** shares the diagnostic characters of Inachoididae Dana, 1851, in particular the latero-external parts of pleurites 5–8 that extend beyond each side of the carapace and are calcified and ornamented like the carapace, resulting in the insertion of the carapace into a setting gutter. *Stenorhynchus* Lamarck, 1818, is transferred from Inachidae to Inachoididae, and the subfamily Stenorhynchinae Dana, 1851, is resurrected. Inachoididae now consists of at least two subfamilies: Inachoidinae Dana, 1851, and Stenorhynchinae, whereas the status of Salaciinae H. Milne Edwards & Lucas, 1842, remains uncertain. The status of several other American genera traditionally included in Inachidae is discussed, leading to the recognition of the following subfamilies besides the Inachinae **emend.**: Podochelinae Neumann, 1878, which is here resurrected, Anomalopodinae Stimpson, 1871, and perhaps also Eucinetopinae Števcíć, 2005.

**Key words:** Crustacea, Decapoda, Brachyura, Majoidea, Inachoididae, Inachoidinae, Inachidae, *Paulita tuberculata*, *Paradasygyius tuberculatus*, *Paradasygyius depressus*, new genus, South America, *Stenorhynchus*, *Stenorhynchus seticornis*, Salaciinae, Stenorhynchinae, Podochelinae, Anomalopodinae, Eucinetopinae, subfamilies

### Introduction

A recent comparison of the brachyuran families Hymenosomatidae MacLeay, 1838 (Guinot 2011a, 2011b) and Inachoididae Dana, 1851, provided the opportunity to re-examine the morphology and taxonomic position of *Paradasygyius* Garth, 1958, previously studied by Drach & Guinot (1982, 1983), Guinot (1984), and Guinot & Richer de Forges (1997). The heterogeneous nature of the genus suggested a reappraisal of its two species: *P. depressus* (Bell, 1835), its type species, and *P. tuberculatus* (Lemos de Castro, 1949). The relationships of Inachoididae (exclusively American except for the invasive *Pyromaia tuberculata* Lockington, 1877) both with the large family Inachidae MacLeay, 1838, and with the cosmopolitan family Hymenosomatidae, discussed by Guinot & Richer de Forges (1997), needed to be reevaluated.

The worldwide *Stenorhynchus* Lamarck, 1818, traditionally included in Inachidae is assigned here to Inachoididae based on morphological and behavioural features, whereas its original characters are evidence of a particular grouping, for which Stenorhynchinae Dana, 1851, is resurrected tentatively as a subfamily of Inachoididae.

Several American genera traditionally assigned to Inachidae show a clear exposure of posterior pleurites that was not previously noticed. But the pattern of these exposed pleurites is not equivalent to that which characterises Inachoididae. Additional features distinguish these American taxa from typical inachids and inachoidids, leading to