Records of the Australian Museum (2023) vol. 75, issue no. 4, pp. 343–356 https://doi.org/10.3853/j.2201-4349.75.2023.1876

## Records of the Australian Museum

a peer-reviewed open-access journal published by the Australian Museum, Sydney communicating knowledge derived from our collections ISSN 0067-1975 (print), 2201-4349 (online)

## Spider Crabs of the *Samadinia pulchra* complex (Crustacea: Decapoda: Epialtidae)

SHANE T. AHYONG<sup>1</sup>, BEE YAN LEE<sup>2</sup>, AND PETER K. L. NG<sup>3</sup>

<sup>1</sup> Australian Museum Research Institute, Australian Museum, 1 William Street, Sydney NSW 2010, and School of Biological, Earth & Environmental Sciences, University of New South Wales, Kensington NSW 2052, Australia

<sup>2</sup> Tropical Marine Science Institute, National University of Singapore, 18 Kent Ridge Road, Singapore 119227, Republic of Singapore

<sup>3</sup> Lee Kong Chian Natural History Museum, National University of Singapore, 2 Conservatory Drive, 117377, Republic of Singapore

ABSTRACT. The spiny spider crab, *Samadinia pulchra* (Miers *in* Tizard, Moseley, Buchanan & Murray, 1885) (type locality: Bohol Sea, Philippines) has long been considered to be widespread in the western Pacific and Indian Ocean, with *Anamathia livermorii* Wood-Mason *in* Wood-Mason & Alcock, 1891, described from the Andaman Sea, in its synonymy. Reassessment of *Samadinia pulchra* from throughout its purported range indicates that it comprises a complex of three species: *S. pulchra* sensu stricto, occurring in the northwestern Pacific, from the South China Sea to Japan; *S. livermorii*, occurring in the Indian Ocean, ranging from southwestern Indonesia to East Africa; and a new species, *S. jimlowryi* sp. nov., ranging from northwestern Australia to southeastern Indonesia.

## Introduction

The spiny spider crab, *Anamathia pulchra*, was described by Edward Miers in 1886 based on a single specimen collected by the HMS *Challenger* in the Philippines. It was soon followed by description of a similarly spiny species, *Anamathia livermorii* Wood-Mason *in* Wood-Mason & Alcock, 1891, from the Andaman Sea. Presumably on account of their strong similarities, *A. livermorii* was synonymized with *A. pulchra* and transferred to *Scyramathia* (see Alcock, 1895), then to *Rochinia* (see Rathbun, 1925), and most recently to *Samadinia* Ng & Richer de Forges, 2013, a genus of 37 species to date (see Lee *et al.*, 2021; Richer de Forges *et al.*, 2021; Takeda *et al.*, 2022; Davie & Lee, 2023; Lee *et al.*, 2023). Subsequent studies reported

S. pulchra (Miers, 1886) from wide-ranging localities including Japan and Taiwan (Sakai, 1938; Takeda, 1975; Ho et al., 2004), the South China Sea (Serène & Lohavanijaya, 1973; Griffin, 1976), Indonesia (Griffin & Tranter, 1986a) and northern Australia (Griffin & Tranter, 1986b; Richer de Forges & Poore, 2008), and the western Indian Ocean from Madagascar and East Africa (Doflein, 1904; Richer de Forges & Ng, 2013; Muñoz et al., 2021). Consequently, S. pulchra has long been regarded as wide-ranging in the Indo-West Pacific and distinguished from its congeners by the combination of strongly divergent rostral spines, and the presence of 20 long, upright dorsal spines on the carapace (including preorbital and hepatic spines). Here, we reassess Samadinia pulchra from throughout its purported range and recognize a complex of three species, documented below.

Keywords: Epialtidae, new species, deep sea, spider crab, taxonomy, species complex
ZooBank registration: urn:lsid:zoobank.org:pub:23801E7A-92AA-4422-9A94-FF37999D28E1

**ORCID iD**: Shane T. Ahyong 0000-0002-2820-4158, Bee Yan Lee 0000-0002-5806-6999, Peter K. L. Ng 0000-0001-5946-0608 **Corresponding author**: Bee Yan Lee beeyan06@gmail.com

Submitted: 30 June 2022 Accepted: 30 September 2022 Published: 6 December 2023 (in print and online simultaneously)
Publisher: The Australian Museum, Sydney, Australia (a statutory authority of, and principally funded by, the NSW State Government)
Citation: Ahyong, Shane T., Bee Yan Lee, and Peter K. L. Ng. 2023. Spider crabs of the Samadinia pulchra complex (Crustacea: Decapoda: Epialtidae). In Festschrift in Honour of James K. Lowry, ed. P. B. Berents, S. T. Ahyong, A. A. Myers, and L. Fanini. Records of the Australian Museum 75(4): 343–356. https://doi.org/10.3853/j.2201-4349.75.2023.1876

(cc) BY

Copyright: © 2023 Ahyong, Lee, Ng. This is an open access article licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original authors and source are credited.