

***Euastacus fetzneri* sp. nov., a new highly range restricted dwarf spiny freshwater crayfish (Crustacea: Decapoda: Parastacidae) from the upper Nerang River, Southeast Queensland, Australia, with a conservation assessment and recommendations**

ROBERT B. MCCORMACK^{1,2}  and SHANE T. AHYONG^{3,4} 

¹Australian Crayfish Project, c/- Australian Aquatic Biological Pty Ltd, P.O. Box 3, Karuah, NSW, 2324, Australia, and Research Associate

²Carnegie Museum of Natural History, Section of Invertebrate Zoology, 4400 Forbes Avenue, Pittsburgh, PA 15213-4080 USA.

³Australian Museum Research Institute, 1 William Street Sydney, NSW, 2010, Australia

⁴School of Biological, Earth & Environmental Sciences, University of New South Wales, Kensington, NSW 2052, Australia.

ABSTRACT. The Australian freshwater spiny crayfish genus *Euastacus* Clark, 1936 is the most speciose genus of the family Parastacidae, with 56 species currently described. A new species of dwarf spiny crayfish, *Euastacus fetzneri* sp. nov., is described from the uppermost headwaters of the Nerang River catchment in southeast Queensland, Australia. The species represents the most habitat-restricted freshwater crayfish known globally. This groundwater-dependent species inhabits a narrow seepage zone, with its known distribution largely restricted to stretches of less than 70 metres of stream channel below four permanent subterranean emergence points. Morphologically and genetically allied to the geographically proximate *E. binzayedii* and sympatric with the dwarf-group *E. madae*, *E. fetzneri* is distinguished by the presence of four mesial carpal spines on the major cheliped (versus three in *E. binzayedii*) and a large, sharp ventral carpal spine (versus obsolete or absent in *E. madae*), and unique genetic markers. Ecological observations, burrowing behaviour, and biological notes are provided. Given its extremely limited distribution, small population size, and the high vulnerability of its habitat to disturbance, *E. fetzneri* meets IUCN Red List criteria as Critically Endangered (CR B1ab(iii, iv)).

Keywords: Gondwana, spiny crayfish, climate change, conservation, Crustacea, critically endangered, freshwater crayfish, ectocommensal fauna, groundwater dependent species, habitat specialist, taxonomy

ZooBank registration: urn:lsid:zoobank.org:pub:26A706AF-C4CC-4F98-BC58-203C5448E85D

ORCID iD: McCormack, 0000-0001-7599-8870; Ah Yong, 0000-0002-2820-4158

Corresponding author: Shane T. Ah Yong **Email:** shane.ahyong@austmus.gov.au

Submitted: 3 June 2026 **Accepted:** 6 July 2026 **Published:** 15 July 2026 (online)

Publisher: The Australian Museum, Sydney, Australia (a statutory authority of, and principally funded by, the NSW State Government)

Citation: McCormack, R. B. and S. T. Ah Yong. 2026. *Euastacus fetzneri* sp. nov., a new highly range restricted dwarf spiny freshwater crayfish (Crustacea: Decapoda: Parastacidae) from the upper Nerang River, Southeast Queensland, Australia, with a conservation assessment and recommendations. *Records of the Australian Museum* 78(5): 187–204. <https://doi.org/10.3853/j.2201-4349.78.2026.3018>

Copyright: © 2026 McCormack, Ah Yong. 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.

