



## *Neolithodes flindersi*, a new species of king crab from southeastern Australia (Crustacea: Decapoda: Lithodidae)

SHANE T. AHYONG

National Institute of Water & Atmospheric Research, Private Bag 14901, Kilbirnie, Wellington, New Zealand.

E-mail: s.ahyong@niwa.co.nz

### Abstract

A new species of king crab (Lithodidae) is described from southeastern Australia, *Neolithodes flindersi* **sp. nov.** It is the twelfth known species of *Neolithodes*, the first to be described and the largest lithodid known from Australia. *Neolithodes flindersi* **sp. nov.** most closely resembles *N. brodiei* Dawson & Yaldwyn, 1970, from New Zealand and *N. nipponensis* Sakai, 1971, from Japan and Taiwan. The new species differs from *N. nipponensis* chiefly in being less prominently spinose: the secondary spines covering the surfaces of the walking legs are distinctly shorter, and the antennal peduncle is only sparsely granulate or spinulate, rather than prominently spinulate. *Neolithodes flindersi* **sp. nov.** is most easily distinguished from *N. brodiei* by patterns of spination: the ventral surfaces of the coxae of the walking legs in males and juvenile female *N. flindersi* **sp. nov.** are covered in short conical spines, rather than low, blunt tubercles as in *N. brodiei*, and the meral extensor spines of the walking legs are of similar size rather than markedly uneven. Two specimens of *N. flindersi* **sp. nov.** were collected on gorgonacean corals, representing the first records of a gorgonacean-lithodid association.

**Key words:** Anomura, Lithodidae, *Neolithodes*, king crabs, Australia, New Zealand

### Introduction

The Australian king crab fauna has received relatively little scientific attention, with five species recorded from the region by Poore (2004). Among these, *Neolithodes brodiei* Dawson & Yaldwyn, 1970, described from New Zealand, was believed to occur in southeastern Australia, with Dawson & Yaldwyn (1985: 70) remarking that the species “occurs in appreciable numbers of south-eastern Australia” based on collections in the Australian Museum. As part of a revision of the New Zealand and southern Australian Lithodidae, all records of *N. brodiei* from the region were reassessed. Australian specimens attributed to *N. brodiei* are referable to a new species, herein named *N. flindersi* **sp. nov.** Records of *N. brodiei* from Vanuatu (Macpherson 2001) appear to be based on an undescribed species under study by P. Davie. *Neolithodes flindersi* **sp. nov.** is the twelfth species of the genus, and only the third to be described from the western Pacific (Macpherson 1988, 2004; Ahyong & Dawson 2006). Moreover, it has the distinction of being the largest lithodid known from Australian waters. Although *N. flindersi* **sp. nov.** was to be documented as part of the revision of the New Zealand and Australian lithodids currently in preparation, it is herein described in order to make the name available for use in studies underway by other workers.

### Material and methods

Terminology generally follows Ahyong & Dawson (2006) and Macpherson & Chan (2008). Measurements are in millimetres (mm). Carapace length (cl) is measured from the tip of the rostrum to the median posterior margin of the carapace. Postorbital carapace length (pcl) is measured from the posterior margin of the orbit to