

Lithodidae from the Ross Sea, Antarctica, with descriptions of two new species (Crustacea: Decapoda: Anomura)

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Abstract

The lithodid crab fauna of the Ross Sea, Antarctica, comprises three species in two genera. Two species are new to science: *Neolithodes yaldwyni* sp. nov. and *Paralomis stevensi* sp. nov. *Neolithodes yaldwyni*, previously misidentified from off the Balleny Islands in the Ross Sea as *N. brodiei*, is morphologically most similar to *N. capensis* Stebbing, 1905, described from South Africa, differing chiefly in the proportional lengths of the dactyli of the ambulatory legs. *Paralomis stevensi* is most similar to *P. birsteini*, differing chiefly by its shorter ambulatory leg dactyli, and in males, the longer ambulatory legs and much larger right cheliped. The third lithodid from the Ross Sea, *Paralomis birsteini* Macpherson, 1988, is reported from a wide size range of specimens, including an ovigerous female, indicating the presence of a reproductive population in the region. The presence of *N. yaldwyni* in the Ross Sea is consistent with the hypothesis that lithodids colonized the Southern Ocean via southward movement from low to high latitudes through deepwater. The strong similarity between *N. capensis* and *N. yaldwyni* indicates a possible South African–Kerguelen–Antarctica link. The rhizocephalan, *Briarosaccus callosus* Boschma, 1930, parasitizing *P. birsteini*, is recorded for the first time from the area.

Key words: Crustacea, Lithodidae, *Neolithodes yaldwyni*, *Paralomis stevensi*, *Paralomis birsteini*, *Briarosaccus*, new species, Antarctica, Ross Sea, taxonomy

Introduction

Records of reptant decapod crustaceans from high-latitudes are few, with only the anomuran crabs, Lithodidae, known as adults in Antarctic waters (Thatje & Arntz 2004). Not surprisingly, records of lithodids from the Ross Sea are also scant. The first lithodid recorded from the Ross Sea was identified as *Paralomis spectabilis* Hansen, 1908 from