



Asterinid seastars from the Mozambique Channel (Echinodermata: Asteroidea: Asterinidae)

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Abstract

A new fissiparous asterinid seastar *Aquilonastra chantalae* **sp. nov.** is described from Europa Island, one of the Scattered Islands (Les îles Éparses) in the Mozambique Channel. It is compared with the fissiparous asterinid *Aquilonastra conandae* O'Loughlin & Rowe from the Mascarene Islands. A table of distinguishing diagnostic characters is provided. The asterinid *Aquilonastra richmondi* O'Loughlin & Rowe is reported for Europa Island.

Key words: fissiparous, Asterinidae, *Aquilonastra*, new species, Scattered Islands, Europa

Introduction

Europa Island is the southernmost of the Scattered Islands (Les îles Éparses) in the southern Mozambique Channel, 550 km from the coast of Mozambique and 300 km from the coast of Madagascar at 22°21'S 40°23'E. Expeditioners from the research program BioReCIE (*Biodiversité, ressources et conservation des récifs coralliens des Iles Eparses*) recently visited the island. In November 2011 a multidisciplinary team explored the reef slopes and reef flats. Among other echinoderms (Conand *et al.* submitted) Chantal Conand received numbers of very small previously unknown seastar specimens from the reef flat, and these specimens are reported in this paper. A similar small fissiparous seastar, at first mistakenly thought to be *Asterina burtoni* Gray, 1840, occurs in the rocky shallows of the Mascarene Islands to the east of Madagascar and was previously studied by Chantal Conand and her colleagues (see Kojadinovic *et al.* 2004, Ooka *et al.* 2010). *Aquilonastra conandae* O'Loughlin & Rowe, 2006 was erected for this species. This work distinguishes these two similar small fissiparous asterinid species from opposite sides of Madagascar in the Indian Ocean. A single specimen of a second asterinid species, *Aquilonastra richmondi* O'Loughlin & Rowe, 2006, was also collected from Europa Island during the recent expedition.

Methods

The specimens were collected by Nicky Gravier-Bonnet (for Chantal Conand) at one reef flat site only (Station 10 Bio 90) at low tide under rocks on November 10th 2011. They were preserved in 95% ethanol and sent to Mark O'Loughlin at Museum Victoria for determination. Melanie Mackenzie took photos of preserved specimen in Museum Victoria, in collaboration with Mark O'Loughlin, using a Leica DC500 high-resolution digital camera system with Auto-Montage software. Terminology follows that referred to and defined and illustrated by O'Loughlin & Waters 2004. Our colleague Ben Boonen prepared the figures for publication, in collaboration with Mark O'Loughlin.