



BANZARE holothuroids (Echinodermata: Holothuroidea)

P. MARK O'LOUGHLIN

Marine Science Department, Museum Victoria, GPO Box 666, Melbourne 3001, Australia. E-mail: pmo@bigpond.net.au

Abstract

The holothuroid species collected by The British, Australian and New Zealand Antarctic Research Expedition (BANZARE) are listed, with some systematic annotations. A previous report by O'Loughlin on some BANZARE holothuroids is revised and incorporated. Four new species are described: the Antarctic dactylochirotid *Echinocucumis kirrilyae* **sp. nov.**; the Kerguelen dendrochirotid *Clarkiella deichmannae* **sp. nov.**; the Antarctic dendrochirotid *Trachythyone cynthiae* **sp. nov.** and *Trachythyone mackenzieae* **sp. nov.** *Cucumaria serrata* var. *intermedia* Théel from Heard and Kerguelen, and *Cucumaria serrata* var. *marionensis* Théel from Marion, are raised to species status, and assigned to *Pseudocnus* Panning. *Cucumaria* (*Semperia*) *ekmani* Ludwig & Heding is a junior synonym of *Cucumaria kerguelensis* Théel. *Cucumaria kerguelensis* is re-assigned to *Neopsolidium* Pawson. *Thyone recurvata* Théel and *Cucumaria squamata* Ludwig are junior synonyms of *Trachythyone muricata* Studer. *Cucumaria* (*Semperia*) *bouvetensis* Ludwig & Heding is formally re-assigned to *Trachythyone*. *Trachythyone baja* Hernández is a junior synonym of *Trachythyone bouvetensis* (Ludwig & Heding). Molecular genetic data indicate possible allopatric cryptic Antarctic forms for the morpho-species *Laetmogone wyvillethomsoni* Théel. A table with all species and station data is provided.

Key words: Antarctica, Kerguelen, Macquarie, Marion, Tasmania, new species, synonymies, generic re-assignments

Introduction

The British, Australian and New Zealand Antarctic Research Expedition (BANZARE), under the command of Sir Douglas Mawson, comprised two research voyages by the *Discovery*. The first voyage left Cape Town in October 1929 and worked off southern Africa, Crozet, Heard, eastern Antarctica (40°–80°E), Kerguelen and south-western Australia. The second voyage left Hobart in November 1930 and worked off southern Tasmania, Macquarie, Scott, eastern Antarctica (60°–180°E), and eastern Tasmania. Johnston (1937) published station data. In the *BANZARE Reports* John (1939) reported on the Crinoidea, Mortensen (1950) on the Echinoidea, A.M. Clark (1962) on the Asteroidea, and Madsen (1967) on the Ophiuroidea. *BANZARE Reports* are no longer published by the University of Adelaide and the remaining Echinodermata from BANZARE, the Holothuroidea, are reported here. The BANZARE holothuroid collection comprises 43 species in 123 lots.

Two BANZARE holothuroid species are conspecific with Australian National Antarctic Research Expedition (ANARE) species of *Trachythyone* that have been recognized from Prydz Bay in Antarctica but not yet described. New species are erected here to accommodate the BANZARE specimens, and the new taxa are based on ANARE material held in Museum Victoria (NMV; specimen registration prefix F).

O'Loughlin (2002) reported on BANZARE Apodida, Aspidochirotida, Elasipodida and some Dendrochirotida species, and this report is revised and all data incorporated in this paper. A paper by O'Loughlin & Ahearn (2008) on Antarctic and Sub-Antarctic species of *Psolidium* included BANZARE species, and data are included here. There is evidence within the BANZARE collection that Elizabeth Deichmann and Cynthia Gust Ahearn worked on some BANZARE lots, and their determinations are confirmed or revised.