



## Antarctic holothuroids from the Bellingshausen Sea, with descriptions of new species (Echinodermata: Holothuroidea)

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### Abstract

Three new species of holothuroids from the Antarctic Peninsula and Bellingshausen Sea are described, with O'Loughlin & Manjón-Cabeza as authors: dendrochirotid *Cucumaria dudexa* **sp. nov.**, *Psolicrux iuvenilesi* **sp. nov.**; myriotrochid *Myriotrochus hesperides* **sp. nov.** *Parathyronidium incertum* Heding is discussed. Two synonymies for Antarctic holothuroids are formalised: *Caespitugo citriformis* Gutt is a junior synonym of *Thyone scotiae* Vaney; *Caespitugo diversipes* Gutt is a junior synonym of *Cucumaria psolidiformis* Vaney. *Cucumaria armata* Vaney is removed from inclusion in the *Cucumaria georgiana* (Lampert) group, and is a junior synonym of *Cucumaria psolidiformis* Vaney. A synonymy of *Cucumaria aspera* Vaney with *Psolidium* (*Cucumaria*) *coatsi* Vaney is rejected; *Cucumaria aspera* Vaney is referred to the *Cucumaria georgiana* (Lampert) group. *Cucumaria conspicua* Vaney is removed from synonymy with *Psolidium* (*Cucumaria*) *coatsi* Vaney, and is a junior synonym of *Cucumaria psolidiformis* Vaney. *Thyone scotiae* Vaney is referred to *Crucella* Gutt. *Caespitugo* Gutt is a junior synonym of *Crucella* Gutt. A new genus *Cucamba* O'Loughlin is erected; *Cucumaria psolidiformis* Vaney is referred to *Cucamba* O'Loughlin. A synonymy of *Staurocucumis grandis* (Vaney) with *Staurocucumis turqueti* (Vaney) is confirmed. The referral of *Pseudocolochirus mollis* Ludwig & Heding to *Psolidiella* Mortensen is confirmed. Lists of contemporary synonymies for Antarctic holothuroid species and generic referrals for Antarctic dendrochirotid species are provided. A table of holothuroid species collected from the Antarctic Peninsula and Bellingshausen Sea by the Spanish BENTART-2003 and BENTART-2006 cruises is provided.

**Key words:** Bentart, Dendrochirotida, Myriotrochidae, new genus, new species, synonymies, generic referrals

### Introduction

The University of Málaga currently holds a large collection of holothuroids from the Antarctic Peninsula and Bellingshausen Sea. These were collected by two Spanish Government expeditions, BENTART-2003 (30 January to 27 February 2003) and BENTART-2006 (20 January to 13 February 2006), using the Spanish R/V *Hesperides*. The goal of the BENTART expeditions was an integrated taxonomic and ecological study of the benthos of this Antarctic region.

During October of 2008 this large collection was studied, and the data collated by the authors and their student assistants from the University of Málaga. These data are in Table 1. Seven new species were recognized. Three are described in this work. The remaining four have been found in other Antarctic collections and will be described elsewhere. Mark O'Loughlin is responsible for the systematic decisions in this work. Eugenia Manjón-Cabeza is responsible for the specimens in this collection. Mark O'Loughlin is the author of a new genus, and Mark O'Loughlin and Eugenia Manjón-Cabeza are the authors of the new species. Antarctic echinoids frequently have specimens of species of the holothuroid *Echinopsolus* Gutt attached to the spines. Echinoids from BENTART-2003 and BENTART-2006 were being studied elsewhere when this