



***Pseudrotasfer microincubator* gen. et spec. nov., a brooding cucumariid
holothurian (Echinodermata: Holothuroidea: Dendrochirotida)
from the Burdwood Bank (south-western Atlantic Ocean)**

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Abstract

A new brooding cucumariid holothurian, *Pseudrotasfer microincubator* **gen. et sp. nov.** has been discovered in samples taken by the LAMPOS expedition with FS “Polarstern” at Burdwood Bank in the south-western Atlantic Ocean. This species is characterised by peculiar wheel-like baskets in its outer body wall and a deeper layer of simple large perforated plates, that require the establishment of a new genus. The new genus and species are characterised, and a description is provided of its external and internal morphology, including a SEM study of its ossicles.

Key words. Echinodermata, Cucumariidae, taxonomy, south-western Atlantic Ocean, spermatozeugmata, ovarian brooder

Introduction

The aim of the LAMPOS expedition with FS “Polarstern” (cruise ANT XIX/5, Apr. 2002) was to study the “biogeographic and evolutionary links between the Magellan region (South America) and the Antarctic continent” (Arntz 2003: p. 1). In particular, a study was made of the shallows and islands of the Scotia Arc connecting the Magellan and the Antarctic region, to determine whether or not they serve as stepping stones supporting faunal dispersal, and if so, what is the direction of faunal migration (Arntz 2003)? To address these questions, 13 areas along the Scotia Arc, ranging from 200 to 650 m depth, were sampled, using a variety of gear, including Agassiz trawl, bottom trawl and box corer.

During this cruise, the eastern and western extensions of the Burdwood Bank were also sampled. The Burdwood Bank represents the north-western most part of the Scotia Ridge towards South America (Fig. 1). This part of the ridge has a depth as shallow as about 75 m, and is a flat-topped area measuring about 350 km by 100 km at the 200 m isobath (Davey 1972, GEBCO Digital Atlas 2003). The holothurian fauna of this area is poorly known. Previous expeditions (Scottish National Antarctic Expedition, station 346; Swedish Antarctic Expedition, station 59) gathered a total of six holothurian species (Tab. 1), described by Vaney (1908) and Ekman (1925).

Current investigations of samples taken in the course of the LAMPOS expedition in the Burdwood Bank area, revealed the presence of a seventh, new, small brooding dendrochirote holothurian. A striking character of this new species is an outer layer of wheel-like baskets in the body wall, which have not been reported before and necessitate the erection of a new genus.