



A new genus and species of the family Isididae (Coelenterata: Octocorallia) from a CMAR Biodiversity study, and a discussion on the subfamilial placement of some nominal isidid genera

PHILIP ALDERSLADE¹ & CATHERINE S. MCFADDEN²

¹Commonwealth Marine & Atmospheric Research, PO Box 1538, Hobart, Tasmania 7001, Australia.

E-mail: phil.alderslade@csiro.au

²Department of Biology, Harvey Mudd College, Claremont, California 91711, USA. E-mail: mcfadden@hmc.edu

Abstract

We describe a new abyssal genus and species of bamboo coral (family Isididae) with some markedly unusual characteristics, collected from a depth of just over 2000 m off southern Tasmania. *Jasonisis thresheri* **n. gen., n. sp.** possesses a fleshy tegument that contains nematocysts, tubular axial internodes that are internally partitioned, scale-shaped sclerites that have a morphology not recorded before for octocorals, and polyps that lack thorny rods or double stars in the pharynx. Molecular data place *Jasonisis* **n. gen.** in the subfamily Keratoisidinae whose definition is altered to incorporate the unusual characters. We also report some comparative observations on the internal structure of the axial internodes of the isidid genera *Keratoisid* Wright, 1869, *Lepidisis* Verrill, 1883 and *Isidella* Gray, 1857, and we alter the definition of the subfamily Mopseinae to allow the inclusion of the genera *Tenuisis*, *Echinisis sensu* Bayer & Stefani 1987 and *Sclerisis sensu* Bayer & Stefani 1987.

Key words: Keratoisidinae, *Jasonisis thresheri*, bamboo coral, Cnidaria, Alcyonaria, Australia, Mopseinae, *Tenuisis*, *Echinisis*, *Sclerisis*

Introduction

Between 1997 and 2008, CMAR (the Commonwealth Scientific and Industrial Research Organisation division of Marine and Atmospheric Research) carried out a comprehensive regional scale biodiversity program in the Australian region. Six deepwater (~80–4000 m) surveys were conducted that included the north-western, south-western and south-eastern coasts of Australia and a number of sites in the northern Tasman Sea. The surveys targeted seamounts, ridges and canyons, and the outer continental shelf and slope. The study comprised taking both still and video images of the fauna and sampling by the use of sleds, beam trawls, demersal fish trawls and remotely operated underwater vehicles. Octocorals were a major component of the 307 catches resulting in 451 species from 132 genera in 29 families.

This paper is the first of several that are planned to describe the numerous new species and genera resulting from the surveys. It deals with a new genus of bamboo coral (F. Isididae) that has a form of scale-like sclerites not previously reported in octocorals, hollow axial internodes where the tubular cavity is partitioned, a lack of thorny rods or double stars in the polyp pharynx and a thick tegument that covers the colony and contains myriads of nematocysts.

Abbreviations:

TMAG Tasmanian Museum and Art Gallery specimen store, Winkleigh Place, Rosny, Hobart, Tasmania, Australia 7018.

AM Australian Museum, 6 College St. Sydney, NSW, Australia 2101.