



## A new species of *Abyssocladia* (Porifera, Demospongiae, Poecilosclerida, Cladorhizidae) and other carnivorous sponges from the far eastern Solomon Islands

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### Abstract

Two species, one each of *Abyssocladia* Lévi, 1964, and *Asbestopluma* Topsent, 1901, are recorded from the far eastern Solomon Islands for the first time. *Abyssocladia lakwollii* sp. nov. is characterized by the pedunculate disc-shape of the body, the unusually large size of the isochelae I microscleres, and by the shape of the cleistochelae with crossed central teeth. *Asbestopluma* (*A.*) *desmophora* Kelly & Vacelet, 2011, first described from a seamount on Macquarie Ridge (Australia EEZ) and eastern waters to the north and south of New Zealand, is also recorded from the far eastern Solomon Islands. The specimens differ only slightly from their southern counterparts in dimensions of some spicules, and in the ornamentation detail of the basal teeth of the large and small anisochelae.

**Key words:** *Asbestopluma*, New Zealand EEZ, deep water

### Introduction

A small collection of deep-water carnivorous sponges (Demospongiae, Poecilosclerida, Cladorhizidae) from the far eastern Solomon Islands recently produced a new species of *Abyssocladia* Lévi, 1964 and new specimens of *Asbestopluma* (*Asbestopluma*) *desmophora* Kelly & Vacelet, 2011, first described from Macquarie Ridge (Australia EEZ), and eastern waters to the north and south of New Zealand. The aim of this contribution is to describe the new species *Abyssocladia lakwollii* sp. nov., and to compare the known New Zealand species *Asbestopluma* (*Asbestopluma*) *desmophora* with the Solomon Islands specimens.

### Material and methods

Specimens were collected with a grab-sampler by remote-operated vehicle (ROV) from the far eastern Solomon Islands. Only degrees of latitude and longitude are given in the location descriptions as the more precise information is unavailable due to commercial sensitivity. Specimens were preserved immediately upon collection and stored for the long term in 70% ethanol. Additional morphological observations and habitat conditions were obtained from *in situ* ROV photographs of specimens prior to collection. The skeletal architecture was studied on temporary whole mounts and on thick polished sections obtained by embedding a fragment of the specimen in Araldite®, and sectioning with a low speed saw using a diamond wafering blade and wet-ground on polishing discs. Spicules were prepared for both light (LM) and scanning electron microscopy (SEM) by boiling a small piece of sponge in nitric acid on a microscopic glass slide (Vacelet 2006). They were observed with a Hitachi S570 SEM. Spicule measurements in the species descriptions are given as length [min–max (mean)] x width [min–max

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