



## New records of Calcareous sponges (Porifera, Calcarea) from the Chilean coast

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### Abstract

The present study is part of a large international effort to inventory the markedly underestimated sponge diversity in the coastal south-eastern Pacific, and figure its biotic affinities with neighbouring faunas in the Antarctic peninsula, in the south-western Atlantic and in the tropical eastern Pacific. Collections were assembled between 2003 and 2007 from 20 Chilean localities, at depths varying from 8 to 35 m. Thirty nine specimens of calcareous sponges were collected totalling 7 species which are described here, 6 being new to science. Four species belong to Calcinea (*Clathrina antofagastensis* sp. nov., *Clathrina fjordica* sp. nov., *Guancha ramosa* sp. nov., and *Leucaltis nuda* sp. nov.), and 3 to Calcaronea (*Leucosolenia australis*, *Sycon huinayense* sp. nov., and *Sycettusa chilensis* sp. nov.).

**Key words:** Calcarea, Chile, Sponges, taxonomy

### Introduction

As a likely consequence of its over 5000 km long coast (spanning 38 degrees of latitude) and possession of the world's most intricate and inaccessible system of islands, fjords and channels, Chile has a long standing deficit of taxonomic inventory of its sponge fauna (Försterra *et al.* 2005; Hajdu *et al.* 2006; Carvalho *et al.* 2007; Willenz *et al.* in press). Only about 140 species have been reported from this entire area, notably by Breitfuss (1898), Thiele (1905), Desqueyroux (1972, 1976), Desqueyroux-Faúndez & Moyano (1987) and Desqueyroux-Faúndez & van Soest (1996). Two main biogeographic regions have been recognised: the Peruvian or warm-temperate Province (ca. 6°S to 42°S) and the Magellan or cold-temperate Province (42°S to 56°S), which also spans an important segment of the south-western Atlantic (Ekman 1953).

An international effort to acquire new knowledge on Chilean marine sponges has been established, and a systematic collecting plan was implemented under the auspices of Belgian, Brazilian, Chilean and Swiss institutions, visiting over 20 localities since 2003 (between ca. 23–51°S), and undertaking nearly 100 dives for sponge collection. Among the specimens collected, several are new records of genera and/or families for the SE Pacific (Carvalho *et al.* 2007, Esteves *et al.* 2007). Several Calcareous sponges were also collected, and are reported here.

Only 4 works dealt previously with Chilean Calcarea (Haeckel 1872, Ridley 1881, Breitfuss 1898, Tanita 1942). Of the 20 recognised species, several have a dubious identification. Seven species are described here, 6 of which are new to science: *Clathrina antofagastensis* sp. nov., *Clathrina fjordica* sp. nov., *Guancha ramosa* sp. nov., *Leucaltis nuda* sp. nov., *Leucosolenia australis*, *Sycon huinayense* sp. nov., and *Sycettusa chilensis* sp. nov.