



The genus *Alcyonium* (Octocorallia: Alcyonacea: Alcyoniidae) in Chile

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Abstract

Four new species of *Alcyonium* (Octocorallia: Alcyoniidae) are described from Chile. They occur in the shallow waters of the southern fjord region. One of them is an encrusting species, the other three form digitate colonies. Encrusting forms of *A. grandis* Casas *et al.*, 1997, and *A. haddoni* Wright & Studer, 1889 were also found in the fjord region, bringing the number of *Alcyonium* species recorded for Chile to eight. For all six recently collected species SEM images of sclerites are presented, and a key to the Chilean *Alcyonium* species is included.

Key words: Coelenterata, Cnidaria, Octocorallia, Alcyonacea, Alcyoniidae, benthos, *Alcyonium*, *A. grandis* Casas *et al.*, 1997; *A. haddoni* Wright & Studer, 1889, new species, Chile

Introduction

The shallow water soft coral fauna of the Chilean coast is still almost completely unknown. To date three *Alcyonium* species have been described from Chile. First, *A. antarcticum* Wright & Studer, 1889; specimens described by May (1899) as *Alcyonium paessleri* from Smyth Channel, Chile, synonymized with *A. antarcticum* by Verseveldt & Ofwegen (1992). Second, *A. haddoni* Wright & Studer, 1889, found 315 m deep in the Messier Channel. Third, *A. sollasi*, Wright & Studer, 1889, found 100 m deep in the Straits of Magellan.

Beginning in 1997, Verena Häussermann and Günter Försterra have investigated the anthozoan fauna of Chile with a focus on the South Chilean fjord region and collected many specimens. This soft coral collection includes several clavulariids, one of which has been described recently, viz. *Incrustatus comauensis* Ofwegen *et al.*, 2006, a species of *Renilla*, and six species of *Alcyonium*, which are described in this paper.

Material and methods

The material is deposited in the Museo de Zoología de la Universidad de Concepción, Chile (MZUC-UCCC); National Museum of Natural History, formerly Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands (RMNH); and the Zoologische Staatssammlung München, Germany (ZSM). In the material collection data, VH stands for V. Häussermann, GF for G. Försterra, LA for Liz Atwood (all Fundación Huinay), and PW for Philippe Willenz (Royal Belgian Institute of Natural Sciences, Bruxelles). Samples of *A. glaciophilum* n. sp. (RMNH Coel. 34935), *A. haddoni* (ZSM 20061191), *A. roseum* n. sp. (ZSM 20061195), and *A. yepayek* n. sp. (MZUC-UCCC 32684) have been sent to Dr. Catherine S. McFadden (Harvey Mudd College, Claremont, USA) for molecular study. *A. roseum* proved to be distinct genetically from the other species, but no DNA difference could be found between *A. glaciophilum*, *A. yepayek* and *A. haddoni* in either the msh1 or ITS gene