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A review of the Hexactinellida (Porifera) of Chile, with the first record of *Caulophacus* Schulze, 1885 (Lyssacinosida: Rossellidae) from the Southeastern Pacific Ocean

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Abstract

All records of the 15 hexactinellid sponge species known to occur off Chile are reviewed, including the first record in the Southeastern Pacific of the genus *Caulophacus* Schulze, 1885, with the new species *Caulophacus chilense* sp. n. collected as bycatch in the deep water fisheries of the Patagonian toothfish *Dissostichus eleginoides* Smitt, 1898 off Caldera (27°S), Region of Atacama, northern Chile. All Chilean hexactinellid species occur in bathyal to abyssal depths (from 256 up to 4142 m); nine of them are reported for the Sala y Gomez and Nazca Ridges, with one species each in the Juan Fernandez Archipelago and Easter Island. The Chilean hexactinellid fauna is still largely unknown, consisting of only 2.5 % of the known hexactinellid extant species. Further studies and deep water sampling are essential to assess their ecology and distribution, particularly in northern Chile.

Key words: Hexactinellida, new species, Chile, South-eastern Pacific Ocean, Euplectellidae, Rossellidae, Euretidae

Resumen

Se revisan todos los 15 registros de esponjas hexactinélidas encontradas en Chile, incluyendo el primer registro en el Pacífico Sureste del género *Caulophacus* Schulze, 1885; con la nueva especie *Caulophacus chilense* sp. n., colectada como captura accesoria en la pesca de aguas profundas del Bacalao *Dissostichus eleginoides* Smitt, 1898 en las cercanías de Caldera, Región de Atacama, norte de Chile. Todas las especies de hexactinélidos chilenos ocurren en profundidades batiales y abisales (desde 256 a 4142 m), nueve de ellos han sido reportados para los montes submarinos de Sala y Gómez y la dorsal de Nazca, con una especie en el Archipiélago de Juan Fernández y una especie cerca a la Isla de Pascua. La fauna de esponjas hexactinélidas chilena es aún bastante desconocida, consistiendo de sólo el 2.5 % de todas las especies conocidas. Estudios a futuro y muestreos en aguas profundas son, por lo tanto, esenciales para conocer la ecología y distribución de estas especies en Chile, particularmente en el norte del país.

Palabras clave: Hexactinellida; nuevas especies; Chile; Océano Pacífico Sur, Euplectellidae, Rossellidae, Euretidae

Introduction

Although Chile has a long coast, of about 5000 km long, its diversity of Porifera species is surprisingly low with about 230 described taxa (Lee *et al.* 2008, World Porifera Database 2014). Currently, this Phylum is sparsely studied in the country, with most of the species described in the late XIX century, with some works in the XX century (Desqueyroux-Faúndez 1972, 1990, Desqueyroux-Faúndez & Moyano 1987, Hajdu & Desqueyroux-

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