MARINE SPONGES FROM DATÇA-BOZBURUN PENINSULA - A SPECIALLY PROTECTED AREA IN THE SOUTH EASTERN AEGEAN SEA (TURKEY)

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Abstract

The Sponges were studied at the largest Specially Protected Area (SPA) of Mediterranean basin, Datca Bozburun SPA, in 2002-2004 periods. The samples were collected from all area at depth of 0 to 55 metres both diving by Scuba, freestyle and coastal researchings. As a result, 20 species, belonging to 17 families were found from the Datça Bozburun SPA. One of these taxon is a new record for the Turkish Sponge Fauna (*Ciocalypta carballoi*).

Keywords: Porifera, Eastern Mediterranean

Introduction

Sponges are ecologically and economically important group of marine invertebrates [1]. Each species are an integral part of marine benthic communities with a high-impact role in benthic-pelagic coupling processes [2]. Also Sponges have some of the characteristics of good bioindicators and are convenient tools for characterizing the state of a marine ecosystem [3].

Material and Methods

This study is based on the project "Coastal and Marine Biological Diversity Assessment of Datça-Bozburun Specially Protected Area" [4]. 831 SCUBA and 382 skin dives have been performed in 148 days in 7 cruises to determine the marine biodiversity at the Datça-Bozburun SPA [Fig.1].

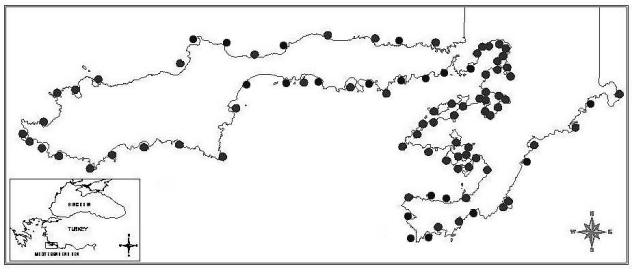

Fig. 1. Location map of the sampling stations

The samples were collected from all area at depth of 0 to 55 metres both diving by Scuba, freestyle and coastal researchings. All sampling stations were situated in the upper infralittoral zone. Samples were fixed by ethanol solution (80%). Following fixation, spicules were isolated by Rützler's standart method and identified to species level.

Results and Discussion

A result of this study, totally 20 species belonging to 17 families were determined from Datça Bozburun Specially Protected Area. These species were as follows: *Sycon raphanus* Schmidt, 1862, *Cliona celata* Grant, 1826, *Spirastrella cunctatrix* Schmidt, 1868, *Suberites domuncula* (Olivi, 1792), *Tethya aurantium* (Pallas, 1766), *Chondrilla nucula* Schmidt, 1862, *Chondrosia reniformis* Nardo, 1847, *Crambe crambe* (Schmidt, 1862), *Axinella cannabina* (Esper, 1794), *Axinella damicornis* (Esper, 1794), *Axinella polypoides* Schmidt, 1862,*Acanthella acuta* Schmidt, 1862, *Ciocalypta carballoi* Vacelet, Bitar, Carteron, Zibrowius & Perez, 2007, *Agelas oroides* (Schmit, 1864), *Haliclona (Reinera) mediterranea* Griessinger, 1971, *Petrosia (Petrosia) ficiformis* (Poiret, 1798), *Calyx nicaeensis* (Risso, 1826), *Sarcotragus foetidus* Schmidt, 1862, *Dysidea avara* (Schmidt, 1862), *Aplysina aerophoba* Nardo, 1843. One of these taxon is a new record for the Turkish Sponge Fauna; descriptive characters of these species is as follows.

Halichondriidae- *Ciocalypta carballoi* Vacelet, Bitar, Carteron, Zibrowius & Perez 2007

The samples were 0,5-8,5 cm high for 3-10 mm basal in diameter. Colour is deep yellow to orange yellow alive, basal incrustation between the papillae, when visible, yellow to yellow green. The spicules are 300-750 × 2,5-15 µm oxeas, most often curved along the whole length. Styles of same size, rare or absent, with intermediates with true oxeas [5].

In study area, rich variety of species have been identified [Fig. 2]. *S. foeditus* and *P. ficiformis* showed the most extensive distribution and all species diversity has a maximum range in Karabük region.

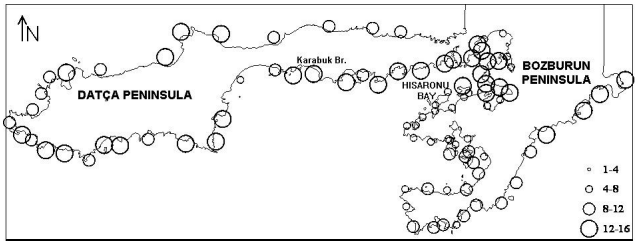

Fig. 2. General distribution of the sponge diversity

This is the first systematical study on sponge fauna in the Datca-Bozburun SPA area. For some areas of the Mediterranean Sea, like those of the Aegean sea, our knowledge on the composition, diversity and abundance of the sponge fauna is limited [6].

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