

PRESENCE OF THE SCLERACTINIAN DENDROPHYLLIA RAMEA IN THE SHALLOW WATERS OF MEDITERRANEAN MOROCCO (AL HOCEIMA, ALBORAN SEA)

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Abstract

During a diving survey at Al Hoceima (Mediterranean Morocco), colonies of *Dendrophyllia ramea* were discovered in a depth range of 24–37 meters, the shallowest record at present recorded for this species. The measurement of the height of the colonies and their diameter close to the base allowed to calculate the correlation coefficient between 10 colonies.

Keywords: *Dendrophyllia ramea*, Benthic communities, Alboran Sea, Morocco

Introduction

Data on hard bottom benthic communities was collected within the MedMPA project of the Al Hoceima National Park (Morocco, Alboran Sea), coordinated by the Regional Activity Centre for Specially Protected Areas (RAC/SPA-Tunis) and financially supported by the European commission. Many colonies of *Dendrophyllia ramea* were recorded during surveys conducted between 24 and 37 meters. This species, present in the southern part of Mediterranean Sea, tolerates warm waters better than *D. cornigera* (1). Common at a depth lower than 80 meter, *D. ramea* was collected, in 1971 in the Alboran Sea at 40 meters, during a dredging in front of Malaga (1).

The record of this species in shallower waters allowed to collect morphometric data and information on its associated benthic assemblage.

Materials and Methods

The field survey was carried out during summer 2003. Underwater sampling, aimed at describing rocky bottom benthos communities, was carried out through coast-off coast transects, 100 meters long or up to 33 meters maximum depth.

On the whole 15 transects were carried on (Fig. 1). *D. ramea* was recorded within transects 3, 9 and 11 at a depth between 24 and 37m. At site 11, the height and the diameter (close to the base) of 10 colonies were measured.

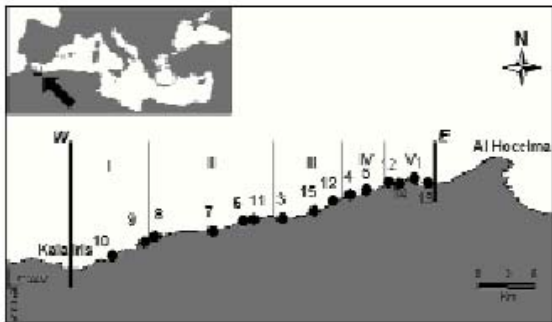


Fig.1. Study area and sampling sites.

Results

D. ramea colonies were recorded on rocky vertical cliffs between 24 and 37 meters of depth. Each of the three sites was characterised by high hydrodynamism, suspended particles and a temperature between 17 and 18°C.

The sites in which *D. ramea* was present were characterized by high species richness and especially a high presence of Anthozoa (*Paramuricea clavata*, *Paramuricea* sp., *Eunicella verrucosa*, *Eunicella singularis*, *Leptosammia pruvoti*, *Astroides calycularis*, *Leptogorgia ceratophyta*).

Within the same site, *D. ramea* colonies were observed with white or yellow polyps.

The correlation existing between the variables measured for each colony (height and diameter of the theca close to the base) was calculated through Spearman's correlation coefficient (r_s), ($P < 0.01$) (Fig.2).

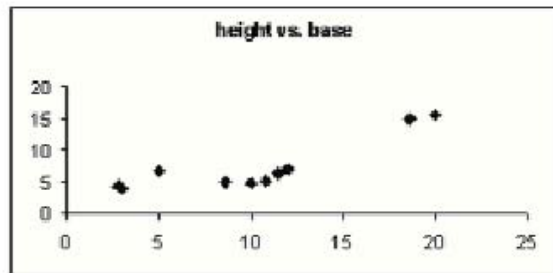


Fig. 2. Spearman's coefficient is $r_s=0.8545$ (one tail test) showed an high positive correlation ($P < 0.01$).

Conclusions

The knowledge on the distribution and ecology of *D. ramea*, unlike the other species of the *Dendrophyllia* genus (1-4), pertains to old studies often carried out by occasional collections. The presence of the species in shallower depths with a constant temperature of 17°C, could be linked to the presence of a thermal stability of the water column in the study area, which would favour the ascension of this species limited only by the light intensity. The presence of *D. ramea* in superficial waters could be a stimulus for future studies aimed at the ecological study of the species.

Acknowledgments. The authors are particularly grateful to the management of the Ministère des Eaux et Forêts and the personnel of the I.T.P.M. of Al Hoceima for their valid assistance and collaboration. The authors would like to thank also S. Agnesi, T. Di Nora, M. Manca Zeichen, E. Piccione for cartographical support.

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