

Implementation of coralligenous habitats characterization protocols for the effective evaluation of the good environmental status of the Mediterranean Sea

Coralligenous habitats

Endemic Mediterrean habitats mainly formed by sciaphilous coralline algae bioherm with complexe structure. This bioherm enables the development of several types of communities including gorgonians or red coral (Corallium rubrum). (Laborel, 1961; Laubier 1966).

CIGESMED program is linked to the MSFD (Marine Strategy Framework Directive): descriptors D1 biodiversity, D2 alien species and D6 bottom integrity.

Principle of the contextualisation

Each map feature is characterized by its profile consisting of :

- One depth,
- One rugosity,
- One orientation,
- One record of the
- One inclination,
- main stands

to identify the context of species Objective : associations studied via photo-quadrats and genetic approaches in CIGESMED project



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Cartography of coralligenous habitats by profiles surveys

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Method of cartography

The studied sites may be small islands, shoal or coastline. Each site represent all possible orientations, and the cartography is done on two sides and two depth (28 m and 43 m). There are 9 sites in Marseilles Bay.

Sampling is done along transect, divided in segments which measure 5 m long and 1 m high. The starting point of each transect is mapped and must be easily visible.

For each segment, four metrics are measured:





Observateur	N° Transect	Temps	Orientation	inclinaison	Rugosité	Eunicella singularis	Eunicella cavolini	Paramuricea clavata	Algue rouge encoutante	Algue rouge foliacée	Algue verte encroutante	Algueverte
RD01	1	5	SE	۷	+		+	+	+			++
RD02	2	6	SE		+	++			+			++
RD03	3	7	SE	Ι	++	na	na	na	++			+++
RD04	1	9	SE	I	+		++	+	+	++		
RD05	2	10	S	V	+	EC++	++		+			



Heterogeneous coralligenous habitats with : . Udotea peteolata and Halimeda tuna

- 2. Eunicella singularis
- 3. Eunicella cavolinii
- 4. Peyssonnelia squamaria
- 5. *Mesophyllum alternans*
- 6. Corallium rubrum
- 7. *Myriapora truncata*
- 8. Paramuricea clavata

are most common examples.



Results and perspectives

One shared typology of cartography enables to contextualize data homogeneously in different European countries highlighting the preferential profiles of different coralline stands.



In the future, this contextualization will be used to facilitate searches of species in relation to their preferred profiles. Moreover this will help to highlight "anomalies" of species presence or associations in relation to disturbances or break of the good environmental status as described in the DCSMM.









