

Cold Water Corals and Associated Biota of the Pen Duick Escarpment (Gulf of Cadiz)

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A Statistical evaluation of the presence and distribution of cold water corals and associated biota of the Pen Duick Escarpment was carried out within the framework of the Euromargins programme Moundforce. The aim of this study is to show the distribution of living and dead cold water corals and other biota on the Pen Duick Escarpment on the Moroccan margin of the Gulf of Cadiz.

Eight video lines were recorded along transects across the Pen Duick Escarpment during cruise M2005 with R.V. Pelagia and were subjected to a description and statistical study. Dead and living corals were determined, counted and presented as a percentage of the abundance of living and dead colonies, with an approximation of the size. In addition the sessile and mobile megafauna were counted. Other features like biological features and sedimentary structures were noted. On the basis of these statistical analysis, several maps were constructed which present the data.

The west of the Pen Duick Escarpment shows the presence of a medium community of corals with high percentage of living ones.

The summits of the mounds at the eastern part of the Pen Duick Escarpment are covered by a high percentage of living corals, except for the summit of the eastern mud volcano where a high percentage of dead corals is present. However the size of the living corals in this area is relatively small, they vary between less than 7cm to 14cm, larger colonies occur rarely.

The mobile megafauna existing in this area includes tube worms, red fish, shrimp, starfish, crab, molluscs and sea urchins.

Key words: Cold water corals, Pen Duick Escarpment, Gulf of Cadiz.