

{rokbox title=|Batimetría tridimensional de los cañones submarinos de Cap de Creus y Lacaze-Duthiers (Golfo de León) mostrando la localización de los transectos de video submarinos analizados :: Figura: Autores| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-covadonga-orejas-corales-aguas-frias-cañon-creus-lacaze-duthiers-gori-et-al-2013-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-covadonga-orejas-corales-aguas-frias-cañon-creus-lacaze-duthiers-gori-et-al-2013.jpg{/rokbox}

A. Gori, **C. Orejas**, T. Madurell, L. Bramanti, M. Martins, E. Quintanilla, P. Marti-Puig, C. Lo Iacono, P. Puig, S. Requena, M. Greenacre, and J. M. Gili, (2013). [Bathymetrical distribution and size structure of cold-water coral populations in the Cap de Creus and Lacaze-Duthiers canyons \(northwestern Mediterranean\)](#). Biogeosciences, 10, 2049-2060, 2013.

Abstract: Submarine canyons are known as one of the seafloor morphological features where living cold-water coral (CWC) communities develop in the Mediterranean Sea. We investigated the CWC community of the two westernmost submarine canyons of the Gulf of Lions canyon system: the Cap de Creus Canyon (CCC) and Lacaze-Duthiers Canyon (LDC). Coral associations have been studied through video material recorded by means of a manned submersible and a remotely operated vehicle. Video transects have been conducted and analyzed in order to obtain information on (1) coral bathymetric distribution and density patterns, (2) size structure of coral populations, and (3) coral colony position with respect to the substrate. *Madrepora oculata* was the most abundant CWC in both canyons, while *Lophelia pertusa*

and

Dendrophyllia cornigera

mostly occurred as isolated colonies or in small patches. An important exception was detected in a vertical cliff in LDC where a large

L. pertusa

framework was documented. This is the first record of such an extended

L. pertusa

framework in the Mediterranean Sea. In both canyons coral populations were dominated by medium and large colonies, but the frequent presence of small-sized colonies also indicate active recruitment. The predominant coral orientation (90° and 135°) is probably driven by the current regime as well as by the sediment load transported by the current flows. In general, no clear differences were observed in the abundance and in the size structure of the CWC populations between CCC and LDC, despite large differences in particulate matter between canyons.

Keywords: submarine canyons, gulf of lions, cold water coral spatial and bathymetrical distribution, size structure, video transects, *Madrepora oculata*, *Lophelia pertusa*, *Dendrophyllia cornigera*