



Controls on cold water coral and carbonate mound development - The Rockall Trough margins and Pen Duick (Gulf of Cadiz) settings compared.

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During the last years a considerable amount of data concerning environmental controls governing the development and growth of cold corals and associated fauna, eventually leading to the development of locally up to 380 m high carbonate mounds on the SW Rockall Trough margin has become available.

Limiting factors affecting coral growth are absence or presence of settling ground, ambient water temperature, salinity, near bed hydrodynamic conditions, sediment load and food presence and supply. The presence or absence of methane in the subseabed or of localized cold seeps does not play a role in the development of mounds.

The presently available (small) number of age determinations in pistoncores and obtained by drilling, are insufficient to constrain the cold coral carbonate mound development models presented so far, and show strong contrasts between and within regions. These data will be discussed in relationship to the prevailing conditions of coral growth.

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