

{rokbox title=|Izquierda: Lophelia pertusa; derecha: Madrepora oculata :: Foto: Andrea Gori| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-resistance-of-two-mediterranean-cold-water-coral-species-to-low-ph-conditions-cova-orejas-movilla-et-al-2014-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-resistance-of-two-mediterranean-cold-water-coral-species-to-low-ph-conditions-cova-orejas-movilla-et-al-2014.jpg{/rokbox}

Juancho Movilla, Andrea Gori, Eva Calvo, [Covadonga Orejas](#) , Àngel López-Sanz, Carlos Domínguez-Carrió, Jordi Grinyó and Carles Pelejero, (2014).

[Resistance of two mediterranean cold-water coral species to low-pH condition](#)

. Water 2014, 6(1), 59-67; doi:10.3390/w6010059

Abstract: Deep-water ecosystems are characterized by relatively low carbonate concentration values and, due to ocean acidification (OA), these habitats might be among the first to be exposed to undersaturated conditions in the forthcoming years. However, until now, very few studies have been conducted to test how cold-water coral (CWC) species react to such changes in the seawater chemistry. The present work aims to investigate the mid-term effect of decreased pH on calcification of the two branching CWC species most widely distributed in the Mediterranean, *Lophelia pertusa* and *Madrepora oculata*. No significant effects were observed in the skeletal growth rate, microdensity and porosity of both species after 6 months of exposure. However, while the calcification rate of

M. oculata

was similar for all colony fragments, a heterogeneous skeletal growth pattern was observed in

L. pertusa

, the younger nubbins showing higher growth rates than the older ones. A higher energy demand is expected in these young, fast-growing fragments and, therefore, a reduction in calcification might be noticed earlier during long-term exposure to acidified conditions.

Keywords: cold-water corals, *Lophelia pertusa*, *Madrepora oculata*, Mediterranean Sea, aquaria experiment, calcification rate, porosity, microdensity