

{rokbox title=|Izquierda: *Desmophyllum dianthus*. Derecha: *Dendrophyllia cornigera* :: Fotos: Izq., A. Olariaga. Der., E. Obis| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-covadonga-orejas-dendrophyllia-desmophyllum-2013-thumb.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-covadonga-orejas-dendrophyllia-desmophyllum-2013.jpg|/rokbox}

M. S. Naumann, **C. Orejas**, C. Ferrier-Pagès, (2013). [High thermal tolerance of two Mediterranean cold-water coral species maintained in aquaria](#). Coral Reefs, doi 10.1007/s00338-013-1011-7

Abstract: In the Mediterranean deep-sea, scleractinian cold-water corals (CWC) are observed to survive at the uppermost end of their presumed thermal distribution range (4–13 °C). Here, we show that 2 common CWC species (i.e. *Dendrophyllia cornigera* and *Desmophyllum dianthus*) maintained in aquaria can indeed tolerate considerably elevated seawater temperatures (17.5 ± 0.1 °C), while growing at similar (*D. dianthus*) or significantly higher (*D. cornigera*) rates than conspecifics cultured in parallel for 87 days at ambient Mediterranean deep-sea temperature (12.5 ± 0.1 °C). Neither differences in coral appearance nor mortality were evident for both species at either temperature. *D. dianthus* grew significantly faster (0.23 ± 0.08 % day⁻¹) than *D. cornigera* (0.05 ± 0.01 % day⁻¹) under ambient thermal conditions. Growth of *D. cornigera* increased significantly (0.14 ± 0.07 % day⁻¹) at elevated temperature, while *Desmophyllum dianthus* growth showed no significant difference under both conditions. These findings suggest that *D. dianthus* and *D. cornigera* may be capable of surviving in warmer environments than previously reported, and thus challenge temperature as the paramount limiting environmental factor for the occurrence of some CWC species.

Keywords: *Desmophyllum dianthus*, *Dendrophyllia cornigera*, Temperature, Growth, Calcification, Scleractinia