

{rokbox title=|Human Stressors Are Driving Coastal Benthic Long-Lived Sessile Fan Mussel *Pinna nobilis* Population Structure More than Environmental Stressors :: Photo: Salud Deudero (COB-IEO)|
thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-mayor-influencia-stres-humano-sobre-nacra-que-stres-ambiental-deudero-et-al-2015-thumb.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-mayor-influencia-stres-humano-sobre-nacra-que-stres-ambiental-deudero-et-al-2015.jpg{/rokbox}

Salud Deudero, Maite Vázquez-Luis, Elvira Álvarez, 2015. [Human Stressors Are Driving Coastal Benthic Long-Lived Sessile Fan Mussel *Pinna nobilis* Population Structure More than Environmental Stressors](#)

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Abstract: Coastal degradation and habitat disruption are severely compromising sessile marine species. The fan shell *Pinna nobilis* is an endemic, vulnerable species and the largest bivalve in the Mediterranean basin. In spite of species legal protection, fan shell populations are declining. Models analyzed the contributions of environmental (mean depth, wave height, maximum wave height, period of waves with high energy and mean direction of wave source) versus human-derived stressors (anchoring, protection status, sewage effluents, fishing activity and diving) as explanatory variables depicting *Pinna nobilis*

populations at a mesoscale level. Human stressors were explaining most of the variability in density spatial distribution of fan shell, significantly disturbing benthic communities. Habitat protection affected

P. nobilis structure and physical aggression by anchoring reveals a high impact on densities. Environmental variables instead played a secondary role, indicating that global change processes are not so relevant in coastal benthic communities as human-derived impacts.

Keywords: