

{rokbox title=|Impacto humano sobre la nacra (*Pinna nobilis*) :: Imagen: Maite Vázquez-Luis (COB-IEO)|
thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-impacto-humano-nacra-pinna-nobilis-alomar-et-al-2015-thumb.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-impacto-humano-nacra-pinna-nobilis-alomar-et-al-2015.jpg{/rokbox}

Carme Alomar, Maite Vázquez-Luis, Kika Magraner, Laura Lozano, Salud Deudero, 2015.
[Evaluating stable isotopic signals in bivalve *Pinna nobilis* under different human pressures.](#)

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Abstract: Increasing human pressures, including recreational boating, on the coastline is a growing sector which has adverse effects on marine biota and habitats. Benthic filter feeders are good indicators of changes in marine ecosystems providing information of biotic response to anthropogenic pressures. This investigation has aimed to evaluate changes in $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ isotopic values, growth and survival rates of *Pinna nobilis* in different marine environments exposed to distinct human activities. In addition, Bayesian isotopic models have been applied to decipher food sources contributing to the filter feeders' diet. Results have revealed isotopic variation of adductor muscle of

P. nobilis

according to a human gradient. Similarly, individuals of eutrophic environments showed higher growth rates than those from oligotrophic conditions, however chance of survival in eutrophic environments was lower, especially during the first life stages of

P. nobilis

. Additionally, similar trends were demonstrated between adductor muscle and mantle tissue of examined individuals, making the latter tissue an appropriate non-lethal sampling technique having implications for environmental and biological assessment and conservation issues.

Results have also shown that

P. nobilis

seems to be relying on pelagic rather than benthic related food sources. Properly assessed, filter feeders can provide information on their interaction with human derived activities, identifying possible alterations of marine systems at an early stage.

Keywords: Boating, Filter feeder, Marine Protected Areas, Mediterranean Sea, Nutrient loads, SIAR