

{rokbox title=|Ejemplar de nacra (Pinna nobilis) :: Foto: Salud Deudero (COB-IEO)|
thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-salud-deudero-fondeo-pinna-hendriks-et-al-2013-thumb.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-salud-deudero-fondeo-pinna-hendriks-et-al-2013.jpg{/rokbox}

Iris E. Hendriks, Simone Tenan, Giacomo Tavecchia, Núria Marbà, Gabriel Jordà, **Salud Deudero**

Elvira Álvarez, Carlos M. Duarte, (2013).

[Boat anchoring impacts coastal populations of the pen shell, the largest bivalve in the Mediterranean](#)

. Biological Conservation. Volume 160, April 2013, Pages 105–113.

Abstract: The decline of important coastal habitats, like seagrass meadows, is likely to influence populations of associated species, like the noble pen shell, *Pinna nobilis*. Here we used a Bayesian formulation of individual covariate models to derive a reliable estimate of populations of

P. nobilis

in shallow, and thus usually most impacted, areas around the island of Majorca, Balearic Islands, Spain. At six evaluated sites we find quite distinct densities ranging from 1.4 to 10.0 individuals/100 m

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. These differences in density could not be explained by habitat factors like shoot density and meadow cover, nor did dislodgement by storms (evaluated by maximum wind speeds at the sites) seem to play an important role. However, noble pen shell density was related to anchoring as at sites where anchoring was not permitted the average density was 7.9 individuals/100 m

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while in sites where ships anchored the density was on average 1.7 individuals/100 m

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. As for the conservation of

Posidonia oceanica

meadows, for the associated population of

P. nobilis

it would be of utmost importance to reduce anchoring pressure as a conservation measure for these endangered and protected bivalves.

Keywords: *Pinna nobilis*, habitat, population structure, hierarchical models, bayesian analysis, data augmentation, capture–recapture, population size, individual covariate.