{rokbox title=|Graphical abstract :: Image: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-sink-source-connectivity-restocking-pinna-nobilis-mediterranean-feria-et-al-2024-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-sink-source-connectivity-restocking-pinna-nobilis-mediterranean-feria-et-al-2024.jpg{/rokbox}

A. Feria-Rodríguez, D. March, B. Mourre, I.E. Hendriks, **M. Vázquez-Luis**, 2024. **Sink-source connectivity for restocking of Pinna nobilis in the western Mediterranean Sea**
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Abstract: The critically endangered endemic bivalve *Pinna nobilis* from the Mediterranean Sea suffered a sudden population decline after a mass mortality event in early autumn 2016. Conservation efforts aimed at preventing extinction included safeguarding resistant individuals and implementing a breeding plan to contribute to the repopulation of the species. This study utilized a model combining Lagrangian dispersion and connectivity analyses to pinpoint optimal restocking sites in the Western Mediterranean. Our approach allowed to identify locations capable of sustaining and generating larvae for broader repopulation in key areas of the Western Mediterranean Sea prior to the mass mortality event. Six important repopulation locations from Murcia, Valencia and Balearic Islands were selected for reintroduction efforts. The results obtained in this study show how the network could be self-sufficient and able to self-replenish itself of recruits. Overall, our work can be used to direct the reintroduction of resistant animals in the Western Mediterranean Sea.

Keywords: *Pinna nobilis*, Repopulation, Conservation, Dispersal, Genetic resistance, Mass mortality event, Bivalve