

{rokbox title=|Location of the *Gongolaria barbata* restoration sites in Cala Teulera :: Image: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-jaume-ferrer-csic-restored-population-gongolaria-barbata-menorca-gran-et-al-2022-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-jaume-ferrer-csic-restored-population-gongolaria-barbata-menorca-gran-et-al-2022.jpg{/rokbox}

Alicia Gran, **Juancho Movilla**, Enric Ballesteros, Marta Sales, Ignacio Bolado, Cristina Galobart and **Maria Elena Cefali**, 2022. [Assessing the expansion and success of a restored population of *Gongolaria barbata* \(Stackhouse\) Kuntze \(Fucales, Phaeophyceae\) using high-precision positioning tools and size distribution frequencies.](#)

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Abstract: Ongoing human pressures over recent decades have caused the loss and ensuing impoverishment of the complexity and diversity of Mediterranean habitats dominated by algal species of the order Fucales. *Gongolaria barbata*, a habitat-forming Fucales species that has disappeared in several places across the Mediterranean, was reintroduced in a cove (Cala Teulera, Maó Bay, Menorca) where it was known to have been locally extinct for more than 40 years. Reintroduction was performed in 2011 using innovative non-destructive techniques. Here we describe the expansion patterns of the population ten years after its reintroduction, and we look at the size-structure distribution of the restored population compared to one of the only natural populations known in Spain (Fornells Bay, Menorca). Newly settled individuals exhibit a progressive dispersal pattern from restoration sites, favouring rocky substrates at the shallowest level parallel to the shore. The area occupied by

G. barbata

has increased by almost three orders of magnitude in ten years, from approximately 3.6 m² of the initially restored area to a current restored area of 2093 m². Recruits and juveniles dominate the restored population but some individuals have reached large size classes, the overall size distribution resembling the reference population. The high-resolution cartography included in our study enables an accurate mid to long-term assessment of the expansion of

G. barbata

. Incorporating such tools in restored marine forests would facilitate the implementation of efficient management policies that will help reinforce their conservation.

Keywords: Cartography, *Cystoseira sensu lato*, Fucales, marine forests, monitoring, rocky

infralittoral