

{rokbox title=|Ejemplar de *Pinna nobilis* epifitado por el alga invasora *Lophocladia lallemandii* :: Foto: Maite Vázquez-Luis (COB-IEO)| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-maite-vazquez-luis-salud-deudero-pinna-nobilis-lophocladia-lallemandii-caulerpa-racemosa-vazquez-luis-et-al-2014-thumb.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-maite-vazquez-luis-salud-deudero-pinna-nobilis-lophocladia-lallemandii-caulerpa-racemosa-vazquez-luis-et-al-2014.jpg|/rokbox}

Maite Vázquez-Luis, Gàlia Banach-Esteve, Elvira Álvarez and **Salud Deudero**, (2014). [Colonization on *Pinna nobilis* at a marine protected area: extent of the spread of two invasive seaweeds](#). Journal of the Marine Biological Association of the United Kingdom, pp 1-8

Abstract: Introduction of species is a major driver of global change and loss of biodiversity in ecosystems. The Mediterranean Sea is the most heavily invaded region in the world by introduced seaweeds. The fan mussel *Pinna nobilis* is the largest Mediterranean bivalve, and a protected species, present at depths from 0.5 m to 60 m. In Cabrera National Park marine protected area (MPA) (Balearic Islands, north-western Mediterranean) the population of *P. nobilis* is affected by the invasive seaweeds *Lophocladia lallemandii* and *Caulerpa racemosa*; however the extent of this colonization on the bivalve is unknown. Therefore, the main aims of the present study were to: (1) determine the extent of invasion of *L. lallemandii* and *C. racemosa* on the *P. nobilis* population; and (2) test if this invasion showed differences with depth. This is the first study assessing invasion by seaweeds on a large bivalve in a high density *P. nobilis* population. *Pinna nobilis* was distributed in all seagrass meadows surveyed within the MPA; we found a total of 872 live *P. nobilis* individuals, 449 and 423 of which were found at 10 and 20 m depth, respectively. High cover of *L. lallemandii*

and low presence of

C. racemosa

were detected in the

P. nobilis

population, being quantified in 49.37% and 1.38% of the population of

P. nobilis

, respectively. Bathymetric differences on

Lophocladia

epizoism over

P. nobilis

has been recorded in this study; with increasing values of

L. lallemandii

cover index, biomass and volume at deeper depths.

Pinna nobilis

could be a preferential substratum for

L. lallemandii

in

Posidonia oceanica

meadows in deeper waters, acting as a stepping-stone for invasive seaweeds and facilitating the invasion throughout seagrass meadows.

Keywords: biological invasions, *Lophocladia lallemandii*, *Caulerpa racemosa*, *Pinna nobilis*, Mediterranean, alien species, introduced seaweeds, epizoism, species interactions