

{rokbox title=|Macroalgas invasoras Caulerpa racemosa y Lophocladia lallemandii :: Foto: Salud Deudero (COB-IEO)| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-macroalgas-invasoras-caulerpa-posidonia-deudero-et-al-2014-thumb.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-macroalgas-invasoras-caulerpa-posidonia-deudero-et-al-2014.jpg{/rokbox}

S. Deudero, A. Box, M. Vázquez-Luis, N.L. Arroyo, (2014). [Benthic community responses to macroalgae invasions in seagrass beds: Diversity, isotopic niche and food web structure at community level](#)

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Abstract: Trophic paths between species are a useful tool for analysing the impact of species invasions of a biotic community. Species invasions produce changes at trophic level and diversity shifts by replacing native species with species of similar ecological niche. This study focused on the effects of macroalgal invasions on seagrass ecosystems. We conducted two – year bimonthly sampling of a pristine *Posidonia oceanica* seagrass meadow and dead *Caulerpa* species bimonthly. The largest changes in faunal composition were found in meadows colonized by *Caulerpa prolifera*, where major differences in infaunal taxonomic distinctness were apparent. On the other hand, the infaunal community was quite similar between the two invasive *Caulerpa* species (*Caulerpa taxifolia* and *Caulerpa racemosa*). The isotopic niche based on the main trophic guilds established using stable isotope signatures at community level resulted in a highly compacted and ¹⁵N-enriched *C. prolifera* food web structure, indicating high overlap of food source utilization among faunal components, which is typical of degraded systems. Conversely, the *P. oceanica* ecosystem presented the most complex food web, while the influence of the 2 invasive species were similar. An attempt to reconstruct the food web at each vegetated habitat revealed high trophic linkages among the different trophic levels with a continuous transition among them by the various trophic guilds suggesting an adaptation response of the different organisms to the new habitat forming species.

Keywords: invasive, stable isotopes, benthic, Caulerpa