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Why amphipods prefer the new available habitat built by C. racemosa?: a field experiment in Mediterranean Sea.

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The spread of invasive species as *Caulerpa racemosa* affects the habitat structure in vegetated systems and accumulates high amounts of detritus. Those changes in the habitat cause changes that could affect the invertebrate assemblages. It has been demonstrated that amphipods can actively choose the substrata, so the aim of this study was to respond the question: “will amphipods prefer the new available habitat built by *C. racemosa* or, on the contrary, is the detritus stock the factor responsible of this changes?” To answer this question experiment of habitat selection in field were carried out. Mesh bags were place in field with 4 different habitats: *Halopteris scoparia*, *Caulerpa racemosa*, artificial substrata and empty (control bags). The vegetal content was previously defaunated. For each type of habitat 3 treatments were carried out: high content of detritus, low content of detritus and without detritus (7 replicate samples for each habitat and detritus level). The bags were placed into the sea at 6 m depth near the coast, and after 14 days were collected and the amphipod assemblage was analyzed. The experiment was carried out in two localities (Malta and Spain) and two sites by locality. The results showed that species richness and abundance was higher in algal contents founding the highest values in *H. scoparia*. The increase of detritus stock is related with an increment of species richness and abundance of amphipods playing an important role in *C. racemosa*, but in case of *H. scoparia* this pattern was not found. In conclusion, some species present a wide range of distribution and are not affected by the spread of *C. racemosa*, and the detritus stock in *C. racemosa* is a determination factor for some amphipods. *H. scoparia* seems to be a well structured and important habitat by itself showing the highest species richness and abundance of amphipods. Artificial substrata provide refuge to amphipods but the available food in vegetal substrata could increase the attraction of amphipods. Habitat structure and food resource availability seems to be the most important factors on the distribution of amphipods.



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D./D^a. MAITE VÁZQUEZ LUIS

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Formato Oral.

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