{rokbox title=|Location of the six coves sampled during the study :: Image: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-estacion-jaume-ferrer-cob-eijf-ieo-csic-mediterranean-juvenile-primary-food-source-coastal-nursery-areas-arroyo-et-al-2023-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-estacion-jaume-ferrer-cob-eijf-ieo-csic-mediterranean-juvenile-primary-food-source-coastal-nursery-areas-arroyo-et-al-2023.jpg{/rokbox}

Arroyo, N.L., Cuadros, A., Basterretxea , G., and **Moranta, J.**, 2023. **Mediterranean juvenile white seabream rely on phytal fauna as primary food source in coastal nursery areas.** Mediterranean Marine Science, 24(1), 117–130. https://doi.org/10.12681/mms.30018

Abstract: Nursery areas are essential fish habitats due to their relevance in the survival of early stages of fish populations. They are also considered as of high priority in marine conservation strategies. Here, we investigated the diet of white seabream *Diplodus sargus* (Linnaeus, 1758) settlers in six nursery areas located in the shallow waters of coves in Minorca Island (Balearic Islands, Spain). Our aim was to characterize the food sources at different stages of juvenile development and their site-related variability in order to discern the importance of trophic links in cove selection during settling. The gut contents of 101 juveniles captured at different coves, three to the north of the island (N), and three in the southern coast (S), revealed a marked preference for feeding on crustaceans and, in particular, on harpacticoid copepods (>90% of gut contents). Copepods represented the main food source (80 ±4.4%; mean ±S.E.) in younger seabream individuals (10 - 15 mm length). A higher diversity in prey items was observed in the larger size-classes (s2: 16 - 23 and S3: 24 - 30 mm, respectively), which incorporated other prey items such as amphipods, isopods, foraminiferans or ostracods. Diet composition did not vary between the two surveyed locations (North vs. South of the island), but it did show significant differences among the six coves (p minor than 0.001). Comparison between cove sediment infaunal composition and gut contents revealed that predation on sediment communities was scarce. Instead, diet was typically of phytal origin. Our results highlight the importance of the algal component of shallow coastal areas as a foraging habitat. In particular, harpacticoid copepods were key for survival during early development phases. The potential use of harpacticoid copepods to track ontogenic shifts in habitat use by juvenile fish is discussed.

Keywords: essential fish habitats, coastal habitats, nursery habitats, fish settlement, juvenile fish diet, macroalgae, harpacticoid copepods, *Diplodus sargus*