

{rokbox title=|Study area with the position of the haul during the non-stratified period of 2009 and stratified period of 2010 :: Image: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-contraste-patron-distribucion-vertical-crustaceos-decapodos-asvin-ptorres-et-al-2017-thumb.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-contraste-patron-distribucion-vertical-crustaceos-decapodos-asvin-ptorres-et-al-2017.jpg|/rokbox}

Asvin P. Torres, Patricia Reglero, Manuel Hidalgo, Pere Abelló, Daniela S. Simão, Francisco Alemany

,
Enric Massutí

, Antonina Dos Santos, 2017.

[Contrasting patterns in the vertical distribution of decapod crustaceans throughout ontogeny.](#)

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Abstract: In marine ecosystems, the most significant migration observed in terms of biomass distribution is the one connected with the vertical movements in the water column. In the present study, the vertical profiles of the mesopelagic shrimps *Gennadas elegans*, *Eusergestes arcticus*

,
Sergia robusta

, and the epipelagic

Parasergestes vigilax

in the Balearic Sea (western Mediterranean), during the stratified (summer) and non-stratified (autumn) hydrographic conditions, were investigated through their ontogeny, from the larval to adult stages. The mesopelagic adults were observed to move down to the deeper layers during the night more than during the daylight hours. Most larvae aggregated within the limits of the upper water column. The

P. vigilax

larvae were collected only during the stratified period. The first two larval stages vertical distribution indicates that the mesopelagic crustacean spawning could occur at greater depths. During the non-stratified period, the larvae of the mesopelagic species tended to remain at about 500 m depth at night, rising towards the upper layers at sunrise. Vertical patterns are discussed, as strategies associated with predator–prey trade-offs. To our knowledge, the present study is the first such attempt to jointly analyze the vertical migrations of the developmental stages of the pelagic shrimps in the Mediterranean Sea.

Keywords: Shrimps, Ontogeny, Diel vertical distribution, Larvae, Mediterranean