{rokbox title=|Map of the study area (inset in the general map) in the Balearic Basin :: Image: Authors|
thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-relacion-factores-medioambientales-gamba-roja-mediterraneo-cartes-et-al-2017-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-relacion-factores-medioambientales-gamba-roja-mediterraneo-cartes-et-al-2017.jpg{/rokbox}

J. E. Cartes, C. López-Pérez, **A. Carbonell**, 2017. **Condition and recruitment of *Aristeus antennatus* at great depths (to 2,300 m) in the Mediterranean: Relationship with environmental factors.**
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Abstract: Depth and seasonal trends in the biological condition and recruitment of the red shrimp (*Aristeus antennatus*) have been analyzed over the slope to 2,233 m in the western Mediterranean. The best biological condition of *A. antennatus* (gonadosomatic index [GSI]) for mating and spawning occurred at 800–1,300 m in summer, in areas deeper than the fishing grounds distributed between 500 and 800 m. Females moved shallower to feed on the upper slope during periods of water-mass homogeneity (autumn–winter), increasing their hepatic gland weight (hepatosomatic index [HSI]). Females moved downslope (800–1,100 m) to spawn (high GSI) during periods of water mass stratification (late spring–summer). The HSI of females decreased with depth down the slope in autumn, after the reproductive period. Small juveniles were distributed deeper than 1,000 m, associated with high near-bottom O2 levels, low turbidity and high C:N in sediments, implying favorable trophic conditions. This confirms the importance in studying the biology of deep-sea species over their entire depth range. The progressive warming and increasing salinity of deep Mediterranean waters could provoke a decrease of dissolved O2 that would affect the life cycle of *A. antennatus*
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Keywords: *Aristeus antennatus*, environment, gonadosomatic index, hepatosomatic index