

{rokbox title=|Todarodes sagittatus :: Image: Authors (COB-IEO)|
thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-jms-structure-dynamics-cephalopods-ideados-quetglas-et-al-2014-thumb.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-jms-structure-dynamics-cephalopods-ideados-quetglas-et-al-2014.jpg{/rokbox}

A. Quetglas, M. Valls, F. Ordines, A. de Mesa, M.P. Olivar, S. Keller, E. Massutí, 2014. [Structure and dynamics of cephalopod assemblages in the water column on shelf-break and slope grounds of the western Mediterranean](#)

. Journal of Marine Systems. Volume 138, October 2014, Pages 150–159.

Abstract: The structure and dynamics of cephalopod assemblages in different bathymetric strata from the surface to bottom grounds, down to a depth of 900 m, in the western Mediterranean, were analysed. Data were collected both on the shelf-break and slope during the summer and early autumn surveys, using a midwater trawl and a bottom trawl gear, to catch pelagic and nekto-benthic species, respectively. The pelagic tows were not random, but targeted at the strongest and widest acoustic sound layers. A total of 26 cephalopod species belonging to 12 families were collected. With regard to the abundance, biomass and frequency of occurrence, we did not find a common seasonal trend for all the species, suggesting that their population dynamics are not governed by major environmental drivers. Most assemblage metrics (e.g., diversity, species richness, abundance and biomass) showed similar, low values in the pelagic layers compared to the bottom grounds. In general, assemblage metrics were lower in summer than in autumn on the shelf-break, while showing an inverse seasonal trend on the slope. There was a clear general increase in all metrics during the night compared to the day. Cluster results revealed differences in diel migratory strategies by stratum, vertical movements being scarce in the shelf-break species, but intense in the slope species.

Keywords: Cephalopod fisheries, Population density, Pelagic environment, Nycthemeral rhythms, Mediterranean Sea