{rokbox title=|Los peces mictófidos son uno de los grupos más abundantes del dominio mesopelágico :: Asvín Pérez, COB-IEO| thumb=|images/stories/ieo/imagenespublicaciones/mictofidos_640_thumb.jpg|}images/stories/ieo/imagenespublicaciones/mictofidos_640.jpg{/rokbox}

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Vertical distribution, diversity and assemblages of mesopelagic fishes in the western Mediterranean

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Abstract: The mesopelagic fish community of the western Mediterranean was studied during two cruises carried out in December 2009 and July 2010 in the shelf and slope zones around the Balearic Islands. Much of what was previously known about this deep water group of fishes in the Mediterranean Sea came from studies performed using planktonic and small midwater nets. This study was the first attempt to use large pelagic trawls and small nets combined with information about the main sound scattering layers to analyse mesopelagic fish composition, diversity and species assemblages. This community is characterised by a relatively low diversity compared to other oceanic regions of the world, with Myctophiformes and Stomiiformes being the main contributors. Bathymetry and the level of the water column were the most important factors structuring the investigated fish assemblages, and similar vertical patterns were observed for the different species collected during the two study periods. A shelf assemblage composed of a few species of myctophids, with Notoscopelus elongatus being the main contributor, was distinguished. The slope assemblage included both Myctophiformes and Stomiiformes that showed differences in their day–night main location along the water column. In terms of species behaviour, two important groups were detected. The first was non-migrant or weakly migrant species, with the paradigmatic example being the gonostomatid *Cyclothone braueri*, which occurred at a depth of 400–600 m; this species is partly responsible for the permanent acoustic (38 kHz) response at this depth. The second group, near-surface migrants at night, was represented by most of the juvenile and adult myctophids, exemplified by *Ceratoscopelus maderensis*, with the exception of just a few of the largest size classes of some species, such as *Lampanyctus crocodilus* and *N. elongatus* that remain near the bottom.

Keywords: Midwater fishes, Species assemblages, Diel vertical migration, Sound scattering layers, Myctophidae, Gonostomatidae, Sternoptichydae