{rokbox title=|Mictófido Hygophum benoiti :: Figure: Authors (COB-IEO)| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-jms-distribution-fish-larvae-balearic-sea-ideados-olivar-et-al-2014-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-jms-distribution-fish-larvae-balearic-sea-ideados-olivar-et-al-2014.jpg{/rokbox}

M. Pilar Olivar, Ana Sabatés, **Francisco Alemany**, **Rosa Balbín**, **M. Luz Fernández de Puelles** , **Asvin Pérez Torres** , 2014. **Diel-depth distributions of fish larvae off the Balearic Islands (western Mediterranean) under two environmental scenarios**
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Abstract: The diel vertical distribution of fish larvae off the Balearic Islands during late autumn and summer was analysed in relation to the environmental conditions. Four fixed sampling stations, located in the outer shelf and slope zones, were sampled during both the day and night by means of oblique hauls at different water depths. In autumn the first 60 m were characterised by vertical mixing and relatively higher fluorescence values, while summer was characterised by strong near-surface stratification and the presence of a Deep Fluorescence Maximum (DFM). The fish larval community was dominated by mesopelagic species, myctophiforms and stomiiforms, with some differences in species composition and their relative contribution between periods. A higher number of species was observed to reproduce in summer. The diel vertical distribution patterns differed among species and, within species, some differences were detected between the day and night. Although their relative depth preferences were similar between surveys, seasonal comparisons for the most abundant species showed that in autumn larvae presented both a shallower distribution during the day and a deeper distribution during the night than in the summer period. The larvae of all species, except for *Argyropelecus hemigymnus* , were absent from layers below 200 m. In these deeper layers, only *A. hemigymnus* larvae and juvenile stages of myctophiforms and stomiiforms were found. Another group of species, including *Hygophum benoiti* , *Ceratoscopelus maderensis* , *Cyclothone braueri* and *Lampanyctus crocodilus* , characterised the surface assemblage, mainly appearing in the first 50 m during the day, while

at night their distribution was wider, extending to deeper layers.
Benthosema glaciale
,
Symbolophorus veranyi
and
Myctophum punctatum
were located at intermediate levels (mostly 50–100 m). Larval size stratification was evident for the most abundant species, with younger stages being found at shallower depths in the water column, while postflexion stages presented a wide distribution at night, undergoing vertical displacement to the near-surface layers during the day. The roles of the position of the thermocline, the availability of food and light intensity as factors modulating these differences are discussed.

Keywords: Vertical distribution, Mesopelagic fish larvae, Transforming and juveniles, Species assemblages