

{rokbox title=|Welcome to the mesopelagic zone :: Image: Authors|
thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-developin
g-knowledge-base-needed-sustainably-manage-mesopelagic-resources-hidalgo-et-al-2019-thu
mb.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-developin
g-knowledge-base-needed-sustainably-manage-mesopelagic-resources-hidalgo-et-al-2019.jpg{/
rokbox}

Marian Peña, 2019. [Mesopelagic fish avoidance from the vessel dynamic positioning system.](#) ICES Journal of Marine Science, Volume 76, Issue 3, May-June 2019, Pages 734–742, <https://doi.org/10.1093/icesjms/fsy157>

Abstract: The study of marine organism behaviour and vertical distribution requires the use of techniques that do not disturb their natural state. This study analyses the mesopelagic fishes behaviour influenced by the presence of a research vessel. Acoustic data recorded on board the RV “Ángeles Alvariño” during the RAPROCAN 2017 survey showed a clear pattern of mesopelagic fishes migrating deeper in the water column at night when the DP system was connected. Details on how the scatterers changed their trajectory when migrating to the surface at night and the progressive increase in avoidance depth when dawn approached is shown. An experiment was carried out to discern fish reaction to vessel lights and to the DP system. While a dispersed diving was detected when the lights were switched on, a more acute reaction to the DP system was registered with not only vertical displacement, but also an increment in scattering produced by an aggregating behaviour. Both vessel DP-noise and light modify the mesopelagic fish behaviour, which needs to be accounted for when studying mesopelagic layers close to the surface. Surveys aiming at estimating abundance and biomass from these species are encouraged to do so at day time.

Keywords: avoidance, dynamic positioning system, mesopelagic fish, migration, scattering layers