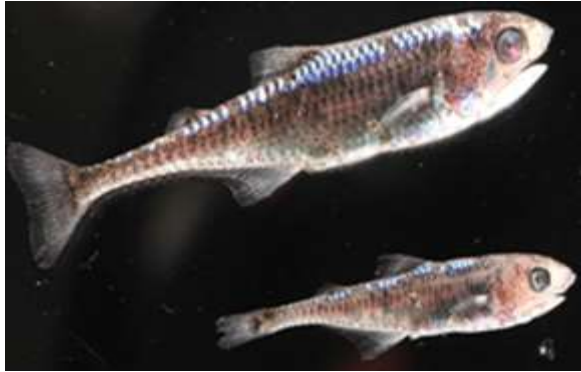


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Research Area: 2.2 Assessment of the ecological state of ocean systems



PhD project: Community of mesopelagic fishes in the Atlantic Ocean; diversity, migration patterns and ecomorphology.

Supervisors: Dr. Maria Pilar Olivar Buera (Marine Science Institute-CSIC)
Dr. Victor Manuel Tuset Andújar (Marine Science Institute-CSIC)

Summary: This thesis project focuses on different areas of the Atlantic Ocean, covering four sectors with different physical-biological characteristics, ie, an oligotrophic region near Brazil, the equatorial region, the area near the Cape Verde archipelago and the region near the outcrop of the Canary Islands. During April 2015, an oceanographic campaign was carried out in which numerous samples of plankton and micronecton were collected, with which work will be carried out aimed at improving knowledge about the mesopelagic fish communities. A priori, the work of the thesis will include the following aspects: Determination of vertical migration patterns since there is evidence that these fish perform extensive nocturnal migrations from the mesopelagic region (200 to 700 m from the water column) until reaching the surface layers. Determination of the dry weights of the species involved and their abundance. Analysis of forms of the most abundant species in order to infer their trophic ecology according to the ecomorphological theory. Establishment of a database of allometric relationships(size / weight). Analysis of the energy content of the most abundant species. All the results will be interpreted with the hydrographic data obtained during the campaign using CTD probes (which record conductivity, temperature, density, fluorescence, etc.).