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Abundance and distribution of tuna larvae off the Balearic Islands in relation to hydrographical features and environmental variables

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Larval abundance and distribution of the three main tuna species spawning off Balearic Islands (western Mediterranean), *Thunnus thynnus*, *T. alalunga* and *Auxis rochei*, have been determined from 2001 to 2005. A regular sampling grid, of about 200 stations was sampled, within the framework of five summer ichthyoplankton surveys, conducted in the area during the bluefin spawning season, from June to early August. Larval tuna data are discussed in relation to the complex hydrographical scenarios observed in the area, mainly the relative spatial distribution of surface water masses of recent Atlantic origin and resident surface waters and the associated mesoscale hydrographic features, such as fronts and eddies. Also, Single Parameter Quotient analysis has been applied to several hydrographic (temperature, salinity, oxygen), spatial (longitude, latitude, depth) and biotic (mesozooplankton biomass) variables in order to determine the preference of larvae for specific ranges of values, as a first step to determine the factors defining the spawning habitat of these species. Results showed in some cases significant preferences for specific environmental factors, highlighting inter-specific differences as well as interannual variability.