{rokbox title=|Larva de atún rojo :: Foto: Fernando de la Gándara (C.O. de Murcia)| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-patricia-reglero-comparacion-atun-rojo-golfo-mexico-mediterraneo-muhling-et-al-2013-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-patricia-reglero-comparacion-atun-rojo-golfo-mexico-mediterraneo-muhling-et-al-2013.jpg{/rokbox}

Barbara A. Muhling, **Patricia Reglero**, Lorenzo Ciannelli, Diego Alvarez-Berastegui, **Francisco Alemany** ,
John T. Lamkin, Mitchell A. Roffer, (2013).
Comparison between environmental characteristics of larval bluefin tuna *Thunnus thynnus* habitat in the Gulf of Mexico and western Mediterranean Sea
. Mar Ecol Prog Ser 486:257-276.

Abstract: Despite being well adapted for feeding in cold water on their North Atlantic feeding grounds, Atlantic bluefin tuna undertake long migrations to reach warm, low productivity spawning grounds in the Gulf of Mexico and Mediterranean Sea. Environmental conditions within spawning areas have been presumed to benefit larval survival, through appropriate feeding conditions, and enhanced larval retention and growth rates. However, field collections and studies to explore the potential mechanisms are rare. In this study, a comparison of the environmental characteristics of both spawning sites was completed using standardized environmental data and modeling methods. Predictive models of larval occurrence were constructed using historical larval collections, and environmental variables from both in situ and remotely sensed sources. Results showed that larvae on both spawning grounds were most likely to be found in warm (23 to 28°C), low chlorophyll areas with moderate current velocities and favorable regional retention conditions. In the Gulf of Mexico, larvae were located in offshore waters outside of the Loop Current and warm eddies, while in the western Mediterranean, larval occurrences were associated with the confluence of inflowing Atlantic waters and saltier resident surface waters. Although our results suggested common themes within preferred spawning grounds on both sides of the Atlantic Ocean, the ecological processes governing larval survival and eventual recruitment are yet to be fully understood.

Keywords: Bluefin tuna, Spawning, Mediterranean Sea, Gulf of Mexico