{rokbox title=|Larva viva de atún rojo (Thunnus thynnus) :: Foto: Asvin Pérez, COB-IEO| thumb=|images/stories/ieo/imagenespublicaciones/bft_vivo_640_thumb.jpg|}images/stories/ieo/imagenespublicaciones/bft_vivo_640.jpg{/rokbox}

Reglero P, Urtizberea A, **Torres A P, Alemany F**, Fiksen Ø, (2011). **Cannibalism among size classes of larvae may be a substantial mortality component in tuna.**
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Abstract: Cannibalism among size classes may reduce starvation and improve survival of larval tuna in oligotrophic ocean areas, but it may also be a substantial mortality component depending onthe availability of alternative prey. Here, we combine laboratory and field data on tuna larvae with amodel of larval foraging and bioenergetics to explore the role of cannibalism in cohort developmentat different temperatures, durations of hatching period, hatching larval densities and natural mortalityrates. Prey fields (zooplankton densities and co-occurrence of different larval stages of 3 species of tuna) were established from cruises in a main tuna spawning area around the Balearic Islands (Mediterranean Sea). Results suggest that a pure zooplankton diet is frequently insufficient to sustain larval growth. Piscivory can be a major source of larval mortality among tuna species and larvae hatched early can feed on abundant larvae of smaller size and have fewer predators themselves. We show how the intensity of cannibalism depends on the temperature dependent growth rate and the resulting relative size distribution when eggs are released continuously over a period of a few weeks. The predator-prey size distribution and the relative densities of these voracious larvae may produce overcompensation in recruitment under some environmental conditions.

Keywords: Cannibalism, Foraging model, Intraspecific predation, Natural mortality, Pelagic larvae, Predator-prey interactions, Size spectra, Surf-riding