

{rokbox title=| Daily survival probability of ALB larvae exposed to increasing densities of BFT (≥ 7.5 mm SL) :: Image:

Authors|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-small-fish-eat-ottmann-2022-thumb-et-al.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-small-fish-eat-ottmann-2022-et-al.jpg{/rokbox}

Daniel Ottmann, Patricia Reglero, Francisco Alemany, Diego Alvarez-Berastegui, Melissa Martín

, Øyvind Fiksen, 2022.

[Small fish eat smaller fish: A model of interaction strength in early life stages of two tuna species.](#)

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Abstract: Fish larvae are rarely a major driver of fish mortality, but tunas can produce large batches of larvae that rapidly develop the capacity to kill other fish. We combine a model for the killing potential from Atlantic bluefin tuna (BFT) larvae on larval albacore (ALB) with field observations at a major spawning ground. Both species spawn from June to August, but BFT has a narrow spawning peak at the beginning of the season that results in priority effects. Our model shows that, following a recent stock recovery, BFT larvae have increased their killing pressure, leaving areas of up to 1000 km² with 1% chance of ALB daily survival. Such increase in killing pressure suggests larval ALB has reduced chances to survive; yet in large areas with few BFT, other drivers of early survival prevail over BFT predation. This shows that strong predatory interactions can occur during larval stages in some fishes.

Keywords: