{rokbox title=| Correlation (R2 = 0.152) and linear model beta estimate (βWNAO = -0.33) between WNAO index and mean annual egg volume and 95% confidence interval :: Image: Authors|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-interspecific-synchrony-breeding-real-2022-thumb-et-al.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-interspecific-synchrony-breeding-real-2022-et-al.jpg{/rokbox}

Angel Amores, Sebastian Monserrat, Marta Marcos, Daniel Argüeso, **Joan Villalonga**, **Gabriel Jordà**
and Damià Gomis, 2022.
Interspecific synchrony on breeding performance and the role of anthropogenic food subsidies.
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Abstract:Synchrony can have important consequences for long-term metapopulations persistence, community dynamics and ecosystems functioning. While the causes and consequences of intra-specific synchrony on population size and demographic rates have received considerable attention only a few factors that may affect inter-specific synchrony have been described. We formulate the hypothesis that food subsidies can buffer the influence of environmental stochasticity on community dynamics, disrupting and masking originally synchronized systems. To illustrate this hypothesis, we assessed the consequences of European policies implementation affecting subsidy availability on the temporal synchrony of egg volume as a proxy of breeding investment in two sympatric marine top predators with differential subsidy use. We show how 7-year synchrony appears on egg volume fluctuations after subsidy cessation suggesting that food subsidies could disrupt interspecific synchrony. Moreover, cross correlation increased after subsidy cessation and environmental buffering seems to act during synchronization period. We emphasize that subsidies dynamics and waste management provide novel insights on the emergence of synchrony in natural populations.

Keywords: