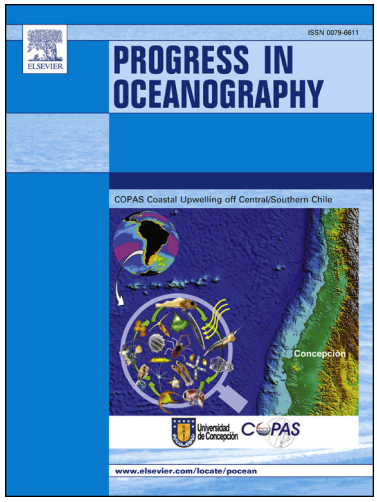

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Environmentally driven synchronies of Mediterranean cephalopod populations

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Abstract

The Mediterranean Sea is characterized by large scale gradients of temperature, productivity and salinity, in addition to pronounced mesoscale differences. Such a heterogeneous system is expected to shape the population dynamics of marine species. On the other hand, prevailing environmental and climatic conditions at whole basin scale may force spatially distant populations to fluctuate in synchrony. Cephalopods are excellent case studies to test these hypotheses owing to their high sensitivity to environmental conditions. Data of two cephalopod species with contrasting life histories (benthic octopus vs nectobenthic squid), obtained from scientific surveys carried out throughout the Mediterranean during the last 20 years were analyzed. The objectives of this study and the