

Interannual variability in a copepod time-series in the spawning and nursery area of the patagonian hake. Implications for fish recruitment

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Due to their dominance in the zooplankton community and their relationship with higher trophic levels in pelagic foodwebs, copepods are key components of marine ecosystems. Their spatial and temporal variability influence the survival of early stages of fish larvae that rely on them as their main prey. This work aims to explore how environmental variability may influence the copepod community, as one of the possible factors affecting hake recruitment success. Research focused on the main spawning and nursery area of the patagonian population of Argentine hake. The data set includes 10 years of zooplankton samples, sea surface temperature and chlorophyll concentration, as well as data on the abundance of year-1 hake juveniles, as an indicator of recruitment of the species. Copepod community was analysed by means of Zoolmage automated method. Small copepods, mainly represented by *Drepanopus forcipatus* and *Ctenocalanus vanus*, were overwhelmingly abundant during the study period. *Calanoides carinatus* dominated the large category. First results concerning interannual variability of abundance, biomass and size structure of the copepod community in relationship with sea surface temperature, satellite chlorophyll and hake recruitment index are presented.

Keywords: copepods, Zoolmage, time-series, hake recruitment, Patagonia

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