Increasing zooplankton variance in the late 1990s unveils hydroclimate modifications in the Balearic Sea, Western Mediterranean.

Abstract: We examined seasonal and interannual patterns of zooplankton functional groups in the Balearic Sea from 1994 to 2003 and revealed a conspicuous increase in zooplankton variance at community and population levels. The change occurred in 1999–2000, and paralleled modifications in the North Atlantic climate that cascaded down affecting the water column thermal gradient in the Balearic Sea. The observed modifications in both hydroclimate and ecological compartments raise the question of a potential ecological shift in the pelagic ecosystem of the Western Mediterranean in the late 1990s.

Keywords: Plankton temporal variance, Seasonal shifts, Non-stationary, Mediterranean zooplankton, North Atlantic climate