

Temporal and spatial variability of *Farranula rostrata* (Copepoda, Cyclopoida) in the Mediterranean Sea

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Non-calanoid copepods (i.e. Cyclopoida), have been found to be numerically important in oligotrophic seas and to have such ecological impacts that set them apart from most other planktonic crustaceans. Despite the presence of the cyclopoid genus *Farranula* in the Mediterranean Sea and Atlantic Ocean, the available information regarding its spatial and temporal distribution is rather limited. Based on data collected from open sea as well as coastal regions of the Mediterranean Sea, we present here the first comparative overview of the spatial and seasonal variability of *F. rostrata* in different Mediterranean regions.

We have studied data collected at four ongoing zooplankton time-series stations in the Mallorca Island (Balearic Sea), the Gulf of Naples (Tyrrhenian Sea), the northern Adriatic Sea and the Saronikos Gulf (Aegean Sea) as well as monthly data collected during one year in the Bay of Tunis. At all five areas, the absolute abundance of the species as well as the relative abundance among copepods was found to be low; thus the species has not been referred among the abundant or even common species in the above areas, either in other Mediterranean coastal areas according to the literature, being almost absent in confined areas. Regarding the offshore waters, the relative abundance of this species is more important among copepods than in coastal waters and it seems to be a key component of the zooplankton in very oligotrophic areas e.g. during June 1999, *F. rostrata* accounted more than 30% of the total copepod community (exceeding that *Corycaeus* spp. and *Oncaea* spp.) in the ultra-oligotrophic environment of Levantine Sea, and its contribution decreased gradually towards the West Mediterranean Sea.

F. rostrata population was perennial throughout the year in almost all studied coastal areas. Pronounced seasonal signals in abundance and relative abundance were observed for *F. rostrata* in the Gulf of Naples, the northern Adriatic Sea, the Bay of Tunis and the Saronikos Gulf; abundance minima occurred during early summer and maxima in fall-winter, when the influence of open sea becomes more intense in coastal waters. No clear seasonal pattern was observed in Balearic Sea, an area largely and continuously affected by offshore waters; the above patterns confirm the pelagic character of the species. These first observations suggest that aspects of the reproductive strategy and its feeding behaviour should be investigated in order to understand the ecological role of this species within the pelagic foodweb of oligotrophic areas.