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MELLAK L. & HAFFERSSAS A

Pelagic Ecosystem Team - Laboratory of Biological Oceanography & Marine Environment - Faculty of Biological Sciences - University of Sciences & Technology
Houari Boumediene -Algiers – Algeria

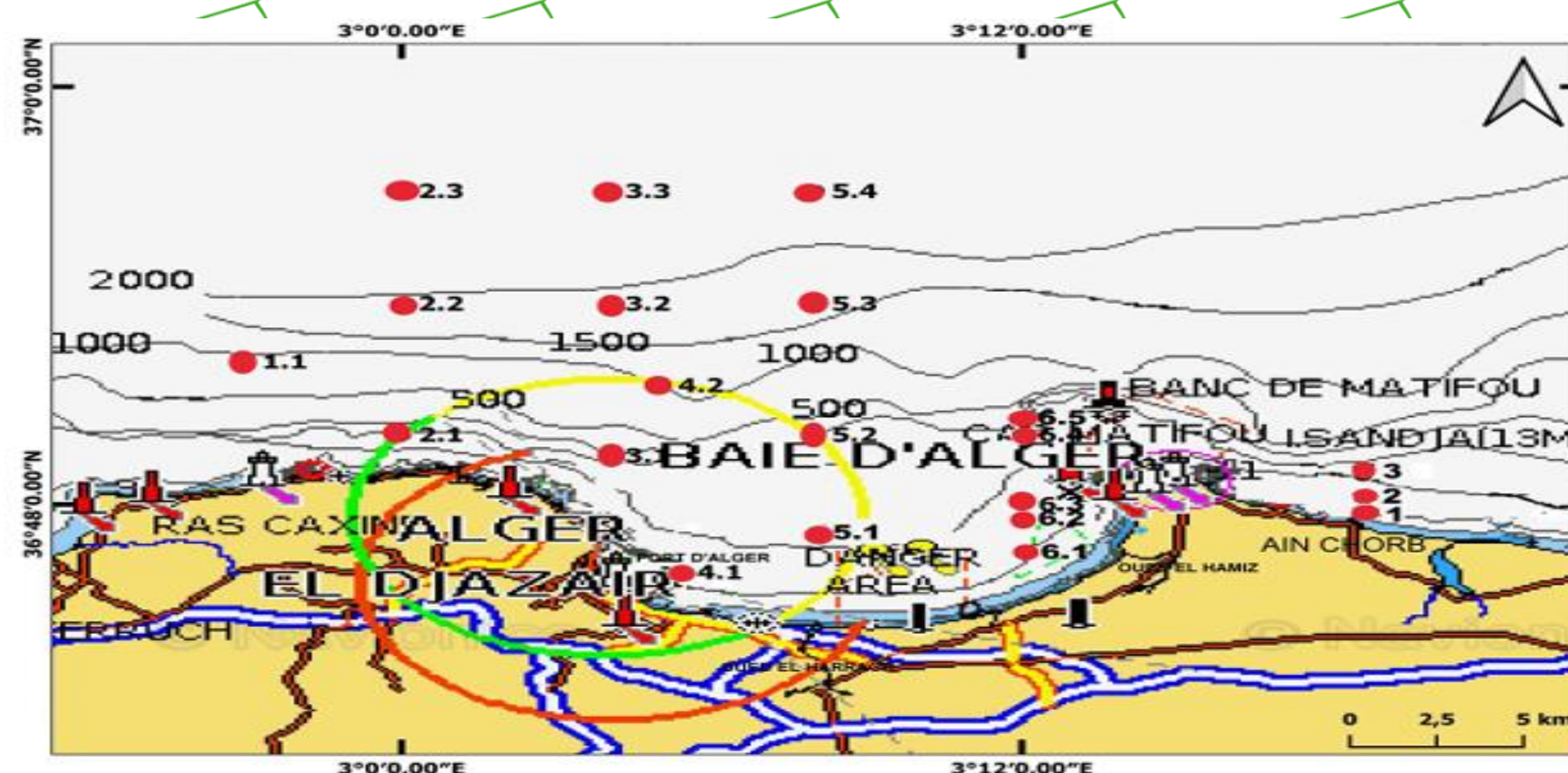
E-mail: mellak.lylia@gmail.com & hafferssas@yahoo.fr

INTRODUCTION

Copepods form the majority group of zooplankton, it is the most abundant group in the oceans (Hafferssas, 2010), They play a key role in the carbon pump and therefore in climate regulation and they are indicators of the passage of the Atlantic Current, The structures of the food webs linked to the different ecosystems of the Algerian coast have function differently. Geographical diversity and variability and seasonal variability in epiplankton communities. These are key elements of pelagic food webs. Consequently, it is realistic to consider the influence of climatic factors on this flow within the pelagic food web.

MATERIALS & METHODS

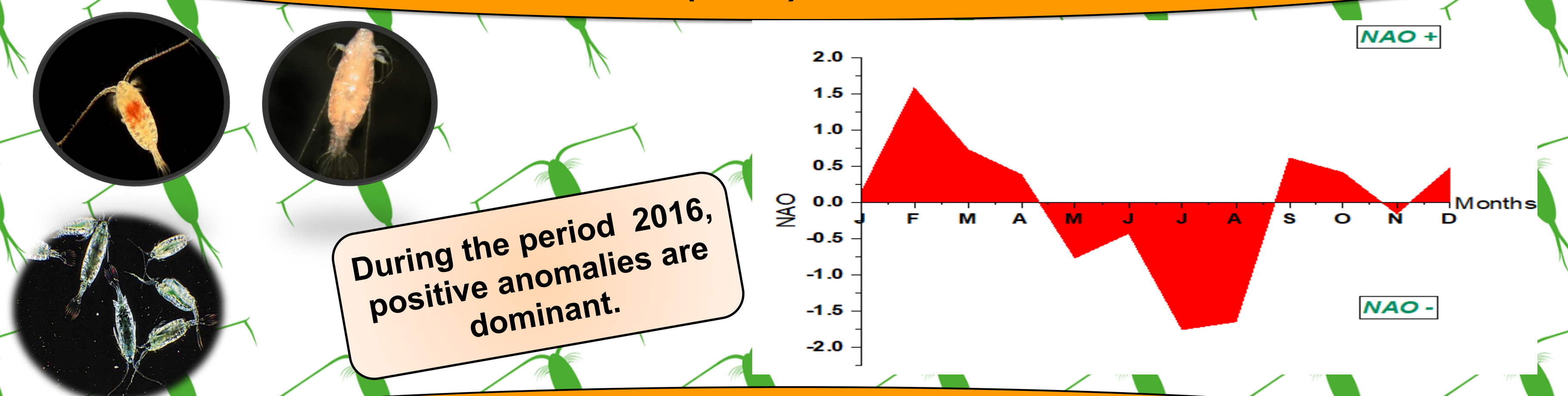
The samples were taken at a shellfish farm. Three sampling stations 3°18'36" E were carried out in this area in 2016 over three seasons: winter, spring and autumn. In addition to zooplankton sampling, data relating to environmental conditions (temperature, salinity, chlorophyll a and the North Atlantic Oscillation, known as NAO) were collected.



GEOGRAPHIC LOCATION OF ZOOPLANKTON SAMPLING AREA (ALGIERS BAY)

RESULTATS & DISCUSSION

Climatic characteristics: North Atlantic Oscillation (NAO) index



RELATIONSHIPS BETWEEN COPEPODS AND HYDROCLIMATIC PARAMETERS

In this region, the flow of matter between the components of the food web during autumn 2016, is corroborated by the correlation ($r > 0.57$ and $p < 0.05$) between prey (*Oncaea mediterranea*, *Agetus limbatus*, *Microcalanus pygmaeus*, *Centropages kroyeri*, *Oithona plumifera*, *Subeucalanus monachus*, *Agetus limbatus* and *Mecynocera clausi*) and their predators (Medusozoa). Autumn temperature ($r > 0.55$ and $p < 0.05$) ($24.80^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$) and haline concentrations ($r > 0.51$ and $p < 0.05$) within the epipelagic water column (37.10 ± 0.30) seem to favour the development of populations such as *Oithona plumifera*, *Centropages kroyeri*, *Microcalanus pygmaeus* and *Triconia minuta*, *Agetus limbatus*.

The correlations observed between salinities and temperatures, as well as the maximum abundance levels of some species such as *Xanthocalanus mixtus* and *Triconia minuta*, suggest that favourable conditions for their reproduction have been maintained, for long enough to enable them to grow. Similarly, other studies have shown that salinity and temperature control the biological cycles of many copepod species in copepods in marine coastal ecosystems (MELLAK & HAFFERSSAS, 2022).

The warming of the waters due to the dominance of the positive phases of the North Atlantic Oscillation (NAO+) appears to be favourable to the development of certain zooplankton species such as jellyfish (Molinero and al., 2008).

CONCLUSION

The NAO climate index is a factor variability of the zooplankton communities that characterise Mediterranean ecosystems. Its link with zooplankton populations is crucial to understanding its influence on the communities.

BIBLIOGRAPHY

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