



Introduction

Copepods, with their diversities, abundances, and ecological roles in marine environments, represent key elements in the regulation of planktonic ecosystems and the transfer of organic matter within the food chain. They are considered indicators of hydrological and hydrodynamic phenomena (Chaouadi, 2018)

Materials and Methods

The sampling sites are located in the west (Tlemcen), center (Algiers), and east (Skikda) as shown in Figure 1. Zooplankton was collected through vertical tows within the surface layer (0 - 50 m) using a WP 2 net.

To identify the assemblages between the stations, we used the analyze Hierarchical Ascendant Classification (HAC).

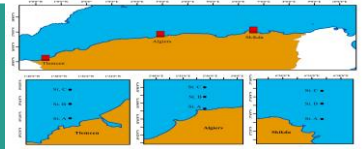


Figure 1. location of sampling

Results and discussion

The analysis allowed for the grouping of the samples into three distinct categories. The first group comprises samples collected in Tlemcen, the west of the Algerian coast, where the stations are characterized by an abundance exceeding 358 individuals/m³ and a specific diversity of 36 species, this group is distinguished by a high abundance of *Pareucalanus attenuatus*.

The second group consists of samples collected in the central part of the country (Algiers), where the abundances reached a record rate of 591 individuals/m³, accompanied by a high specific diversity of 45 species, this group is distinguished by a high abundance of *Nannocalanus minor*.

The third group is formed by samples collected during the winter and spring seasons. The zooplankton communities in this group are distinguished by a high specific richness of 41 species and abundances reaching up to 471 individuals/m³.

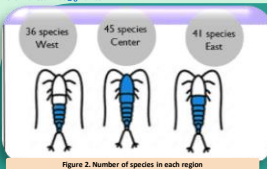


Figure 2. Number of species in each region

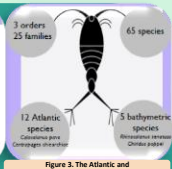


Figure 3. The Atlantic and bathymetric species

In group A, where species exhibit similar and relatively low abundance levels, this could indicate that these species have similar ecological strategies or are adapted to specific environmental conditions.

In group B, it is noted that 5 species have higher abundances compared to other species present in the three regions. This suggests a concentration or dominance of these specific species in the studied samples

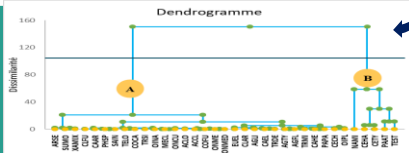


Figure 4. Multivariate analyses performed on the species abundance matrix of copepods: hierarchical classification

Conclusion

In conclusion, our study provides valuable insights into the abundance patterns of copepods in the studied region. The highest species richness was observed in the central region, followed by the eastern region, and the western region showed relatively lower species diversity. These findings emphasize the importance of considering regional variability when studying copepod abundance.

BIBLIOGRAPHIC REFERENCES

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