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Université Djillali Liabès  
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Sidi Bel Abbès (Algérie)

# THESE

Présentée pour l'obtention du titre de  
Doctorat en Océanographie Biologique  
Option : Ecologie Marine  
Intitulée

## APPROCHES MÉTHODOLOGIQUES POUR L'ÉTUDE DES PEUPLEMENTS MACROBENTHIQUES DU GOLF D'ARZEW

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Chargé de cours

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## Summary

The distribution of the macrobenthos in the gulf of Arzew, lies within the scope of a general study, benthic ecosystem, subjected to a pollution, industrial park of Arzew.

46 Stations were chosen, so as to cover the whole of the gulf, while going -16 m to -96 m.

The taking away were carried out using the bucket Aberdeen (Smith McIntyre), at a rate of two blows of bucket per station. Under sample of sediment was used the granulometric study.

The biological analysis, offers interesting data, concerning the existing relation, between the macrobenthic species and texture sedimentary on the one hand, and highlights the principal species, characteristic, and indicatrixes of pollution, as well as principal dominant ecological stocks, on the other hand.

The use of a data of contingency, based on the abundance of the macrobenthos, classification TWINSpan (Two Way Indicator Species of Analysis) and the AFC, make it possible to gather stations, made up in their majority, of species with existing affinities between them, and ecological preference, with respect to the sedimentary cover of the bottom. Moreover, the appearance of heterogeneity, in the western sector of the gulf shows really the effect of hydrocarbons, coming from the industrial park, on the community macrobenthic.

**Key words:** Macrobenthos, pollution, granulometry, TWINSpan, A.F.C., Heterogeneity.