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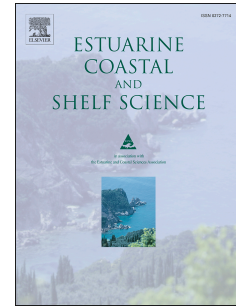
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## **Does the hydrodynamic, morphometric and sedimentary environment explain the structure of soft-bottom benthic assemblages in the Eastern Bay of Seine (English Channel)?**

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### ABSTRACT

It has been traditionally assumed that the distribution of the macrofauna is mainly related to the nature of the sediment and that the grain size plays a key role. Therefore in some cases such as in the coastal environment submitted to input of fine particles coming from land via estuary, the sediment is not the major factor explaining the spatial distribution of benthic species, assemblages and communities. In fact, sediment samples may not be representative of real life conditions of benthic organisms which are exposed to natural environment and three-dimensional structure of habitat and heterogeneity of sediments with several grain size classes. Based on data acquired in September 2008 and 2009 from the benthic sampling surveys in the eastern part of the Bay of Seine which is characterized by the dominance of heterometric sediment, the main aim of this paper is to study for the first time the existing link between the spatial distribution of the benthic species and assemblages and selected environmental variables such as sedimentary, hydrodynamic and morphometric data, to

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