# A COMPARATIVE ANALYSIS OF MACROBENTHIC COMMUNITIES OF SUBLITTORAL AND LITTORAL ZONES OF THE BELGIAN CONTINENTAL SHELF AND COAST (OOSTENDE AND DE PANNE)

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Macrobenthos is defined as all organisms living in the bottom of the sea retained on a sieve with a mesh size of 1mm. The Belgian continental shelf has four typical macrobenthic communities: the *Abra alba – Mysella bidentata* community, the *Nephtys cirrosa* community, the *Ophelia limacina – Glycera lapidum* community and the *Barnea candida* community (Degraer *et al.*, 1999). In the littoral zone the communities are mainly determined by morphodynamic differences attributed to waves and tides, while in the sublittoral mainly to sediment characteristics. The aim of this study was to compare littoral macrobenthic communities of De Panne (sampled in spring 2003) and Oostende (sampled in spring 2004), and to compare these communities with sublittoral communities (sampled in the same period in 2003 and 2004). A Van Veen grab was used to take sublittoral bottom samples and cores were used to take samples in the littoral zone. Both devices had the same surface area (0.1$m^2$). The relative abundances at the genus and higher taxonomic levels, the Shannon-Wiener index, and the evenness of distribution were calculated per community and compared. We observed an increase in number of taxa from the high waterline towards the low waterline. The comparison of the sublittoral communities with the littoral communities of Oostende resulted in a higher diversity index for the sublittoral communities, while the same approach for De Panne resulted in a higher diversity index for the littoral communities.

Reference

Degraer S, I. Mouton, L. De Neve and M. Vincx.1999. Community structure and intertidal zonation of the macrobenthos on a macrotidal ultra-dissipative sandy beach: summer winter comparison. *Estuaries*. 22(3b): 742-752