

INTERNATIONAL ECOMAMA COMMUNITY MEETS BENTHIC COMMUNITIES AT DE PANNE

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The macrobenthos inhabiting the intertidal zone of De Panne Beach, fronting the 'Westhoek' dune reserve, serves as a food source for a rich marine avifauna. A study of the important macrobenthic community of this ultra-dissipative beach was conducted by an international group of students (1st year MSc. ECOlogical MARine MANagement) as part of their practical exercises.

From the dyke to the shore three sampling sites were chosen at approximately equal distances from each other, representing 'upper shore', 'middle shore' and 'lower shore'. At each site, three replicate samples were taken, just below the water line on 1-2 April by excavating sediment enclosed by a frame with a surface area of 0.1m², to a depth of ca. 0.15m. Organisms were identified and counted up to Family level in the laboratory in May 2003. The communities of the three beach sites were compared for abundance, diversity (Shannon-Wiener index) and evenness using univariate and multivariate statistical techniques.

A total number of 141 individuals of 24 families belonging to four different phyla were found. The community structure of the upper shore had the highest number of individuals, dominated by a few species of Polychaeta and low family diversity. The family association of the lower shore had highest family diversity and lower abundances per family. The community structure of the middle beach had lowest family diversity and lowest abundance, acting as a transition zone between the high and the low intertidal communities. These findings correspond well to existing literature (Elliot *et al.*, 1996; Degraer, 1999; Degraer *et al.*, 1999).

References

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