Macrobenthos richness and biomass preferentially geared towards one half of asymmetrical sand waves

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Sand waves ubiquitous in Dutch North Sea. Is benthos distribution significantly different along the bedforms; can these be classified based on dominant biological features? Four areas were sampled at an asymmetrical sand wave field: gentle slope, crest, steep slope and trough.

Most of the taxa from each class level are concentrated on the steep slope, followed by the trough. Transition zones are most abrupt between crest/steep slope and trough/gentle slope.

Benthos densities significantly different along sand waves. Steep slopes most diverse in every category. Gentle slope least diverse and most homogeneous in taxa. Multivariate analyses show habitats differ significantly in composition. Effectively, these sand waves contain at least four distinct habitats.

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(a-c) Relative distribution of box core samples along sand waves. Three densities measured. Troughs are the ends (1.0 and 0.53), 0.0 is crest center. (d-f) Sample distribution between the four identified habitats.

Relative distribution of the benthos at the class level. Only Hexanauplia is not the most concentrated on the (upper) steep slopes.

- Bivalvia
- Polychaeta
- Echinodermata
- Ophiuroidea
- Hexanauplia
- Malacostraca
- Mollusca
- Annelida
- Arthropoda
- Chordata