EFFECTS OF 30 YEARS OF SAND EXTRACTION ON THE STRUCTURAL CHARACTERISTICS OF THE MACROFAUNA COMMUNITIES OF THE KWINTEBANK (BELGIAN CONTINENTAL SHELF)

Moulaert Ine, Kris Hostens and Hans Hillewaert

Departement Zeevisserij, Centrum voor Landbouwkundig Onderzoek
Ankerstraat 1, B-8400 Oostende, Belgium
Email: ine.moulaert@dvz.be

The impact of sand extraction depends on numerous abiotic and biotic factors - including the macrofauna community type present - and might be site specific.

The data gathered by the Sea Fisheries Department during the past 10 years (1996-2004) at different sampling stations in sand extraction zone II give an idea of the global and neighbourhood stability of the macrobenthic community of the Kwintebank during that period. No major changes in species richness, abundance or macrobenthic community structure could be detected during the last decennium. It is assumed that the macrobenthic community of the Kwintebank is currently in a stage of relative stability.

Comparison with historical data however indicates that species composition has changed since the early stages of extraction activities. It also revealed a small change in sediment characteristics.

Samples from both datasets are characteristic for sandbank systems in which the dominant ecotypes are mobile and quickly burrowing organisms such as the genera *Hesionura, Scoloplos* and *Nephtys*. These species are able to withstand the physical disturbance of the sediment caused by strong tidal currents or sand extraction activities.