

## COMMUNITY ANALYSIS OF MACROFAUNA ASSOCIATED WITH COLD-WATER CORAL REEFS IN THE NE ATLANTIC

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Cold-water corals are widespread ecosystems with a bathymetric distribution from 0 to 6200 m. Although these corals were first recorded in the 18th century, they only have received more attention during the past decade. These ecosystems are threatened by the increasing human exploration of the natural sources of the continental slopes. One of the best known cold-water corals is *Lophelia pertusa* (Linnaeus, 1758). Scientists presume that the associated fauna of this common coral would be as diverse as the fauna occurring in the tropical reefs.

The purpose of this study was to analyse the macrofauna associated with *Lophelia* in the North-East Atlantic. We found 58 species that were never mentioned before in association with *Lophelia*. Just like in previous studies the Polychaeta were the most abundant and species-rich group, followed by the Crustacea and Ophiuroidea. Probably the associated community is not a unique fauna as the most abundant species are widespread organisms. In this study the biodiversity of the fauna associated with the different microhabitats of a coral reef was compared. It was obvious that the microhabitats 'sediment' and 'dead coral skeleton' had the most diverse fauna. Some of the taxonomic groups showed a preference for a particular microhabitat. From a literature study, it appeared that the associated fauna of *Lophelia pertusa* has a comparable biodiversity to that of tropical reefs, and a much higher diversity than the endofauna of deep-sea sediments.