

Life among the stones: The gravel beds in the Belgian part of the North Sea

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In the 19th and the beginning of the 20th century, the gravel beds in the Belgian part of the North Sea (BPNS) were described as highly diverse, harbouring ecologically valuable benthic communities and serving as important spawning and feeding grounds for fish. Over the last decades, these areas have been heavily fished by trawlers. Stones were removed or repeatedly disturbed. This has caused severe stress for the epibenthic fauna, often characterised by fragile organisms emerging from the seafloor, which are badly damaged when stones are turned over. In 2014, the Belgian gravel beds were recognised as a valuable habitat under the European Marine Strategy Framework Directive. In accordance, the Belgian Marine Spatial Plan has foreseen two small areas within the gravel beds of the Hinderbanks in which bottom disturbance will be excluded or significantly reduced. This opens opportunities for the typical fauna to develop and the anticipated ecosystem functions to restore.

We will discuss the current ecological status of the gravel beds in the BPNS along with their future perspectives, including the plans to restore oyster reefs in the area.

Keywords: Belgium; hinderbanks; gravel beds; epifauna; benthos; oyster reefs