

An internship on the restoration of hard substrates in the UNESCO World Heritage Site Wadden Sea

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During the internship at NIOZ Royal Netherlands Institute for Sea Research, as a bachelor student in Coastal and Marine Management, a taste emerged of how beautiful and challenging the Dutch UNESCO World Heritage Site, the Wadden Sea, can be. Furthermore, it can sometimes take time to conduct research in this area. Not only does the Wadden Sea bottom change constantly, but the conditions can also be very extreme. In recent years, many hard substrates have disappeared from the Wadden Sea due to trawling fishery and shell mining; not only driftwood but also large granite stones have disappeared. These hard substrates are essential for mussels, for example, to attach to if their larvae want to settle. During an experiment to see how to bring back shellfish beds in the Wadden Sea, enclosures were placed on the Wadden Sea floor to look at the effect of excluding predators on oyster and mussel beds. During the experiment, starfish larvae entered the enclosures, which jeopardized the experiment, so not only the extreme conditions of the Wadden Sea can jeopardize experiments, but also the ecological side of the Wadden Sea can play a significant role in this. This research is a source of a sub-chapter in the book SDG14 'Life Below Water', in 2023, with a global target of Higher Education with showcases and the student voice about Sustainable Development.

Keywords

Hard Substrate; Wadden Sea; Starfish; Marine Protected Area; Sustainable Development