

Lobster settlement at the offshore wind farm *Riffgat* German Bight (North Sea)



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Background The population of the European lobster (*Homarus gammarus*) at the island of Helgoland inside the central German Bight has been stagnating on a very low level for many decades. A mark-recapture study has shown that hatchery-reared lobsters successfully settle in their release area. The present pilot project aims to test an offshore wind farm as a suitable habitat for lobsters. A successful settlement of lobsters at offshore wind farms would clearly contribute to the preservation of the endangered lobster population in the German Bight.

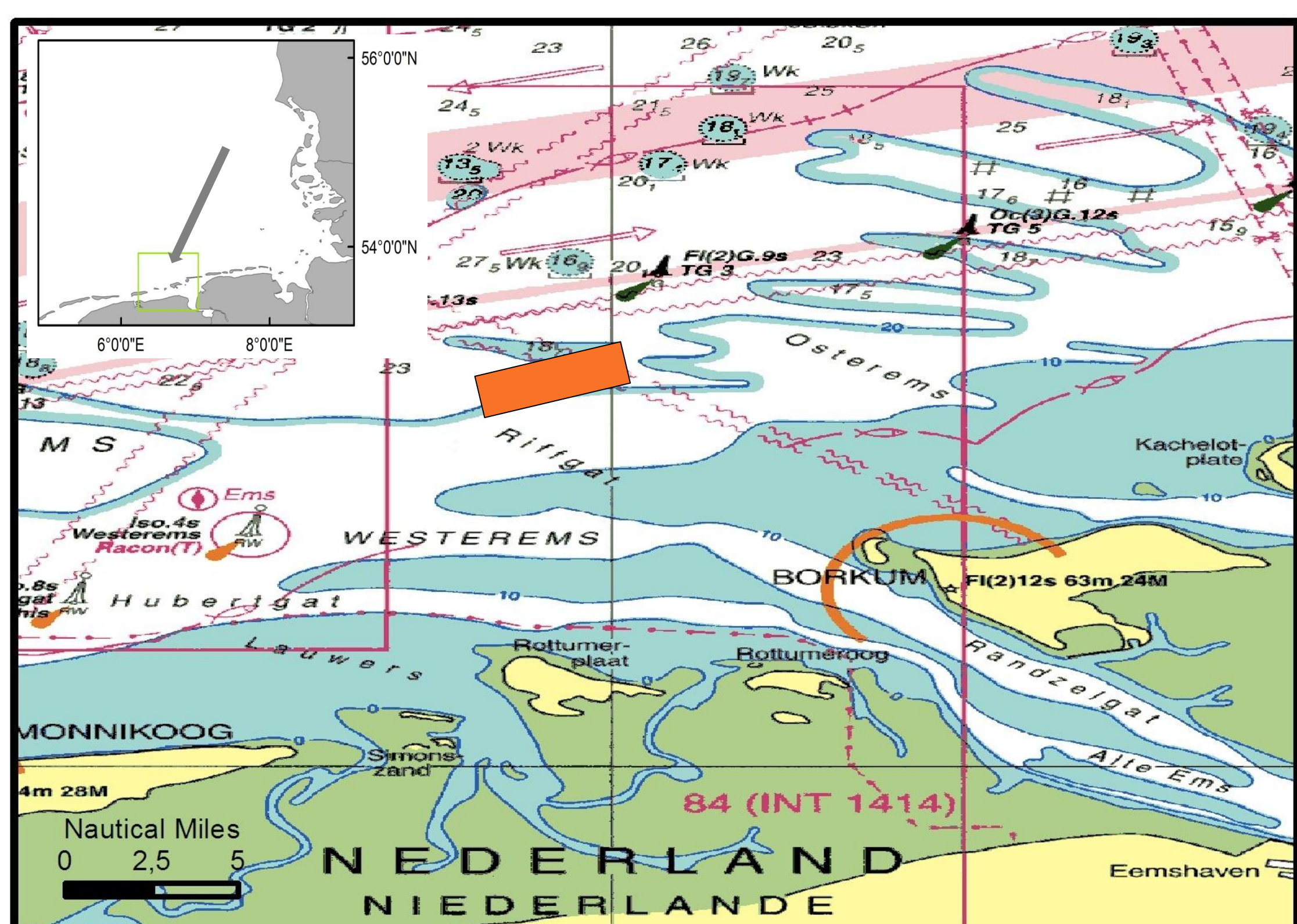
Thesis Offshore wind farms could be used to protect selected endangered mobile demersal species.



Subjects of this targeted investigation will predominantly concern

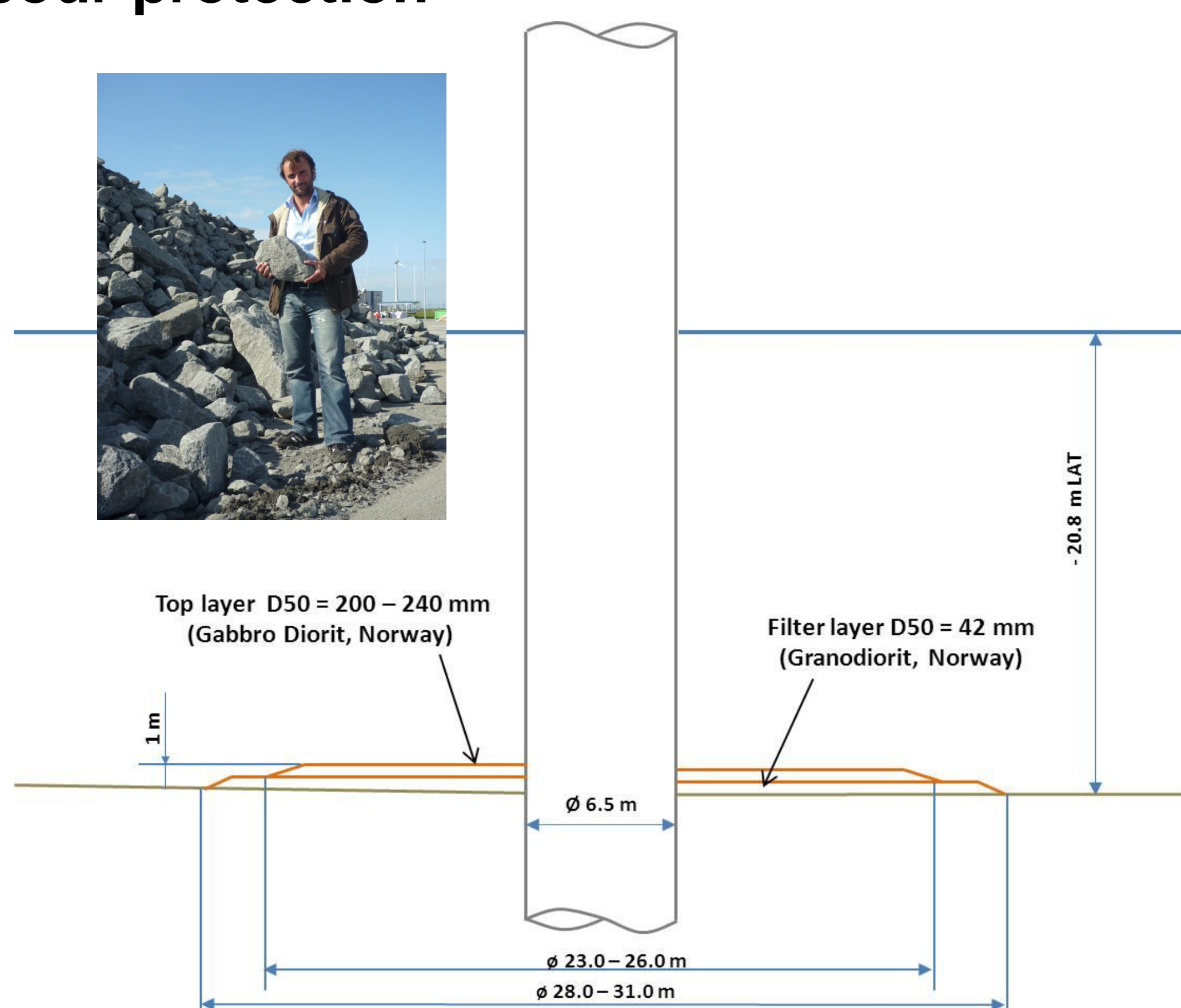
- a) the densities of released individuals necessary for a successful settlement of lobsters at wind power scour protections
- b) the development of the native mobile demersal megafauna at the locations where the lobsters will be released
- c) whether the scours will be naturally colonized by wild lobsters as well.

Wind farm *Riffgat*

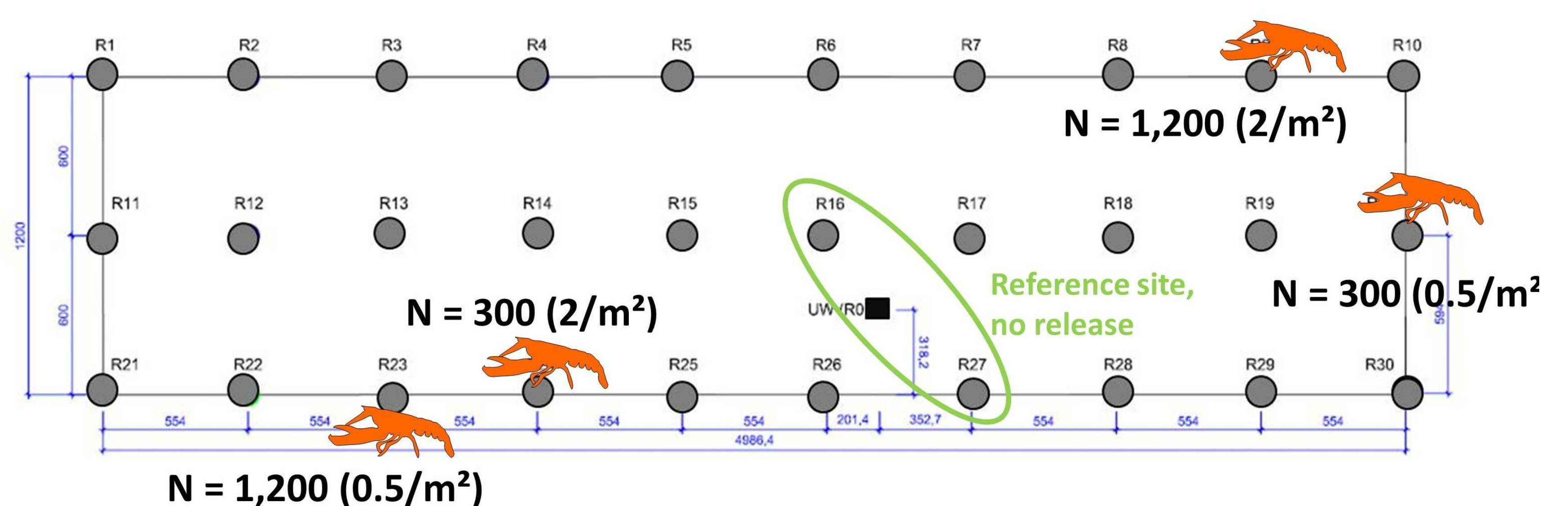


The offshore wind farm *Riffgat* (orange); 30 steel monopiles at 18-23 m water depth; area 6 km²; 108 megawatt; completed in 2013; operating company *Riffgat* GmbH & Co. KG.

Scour protection



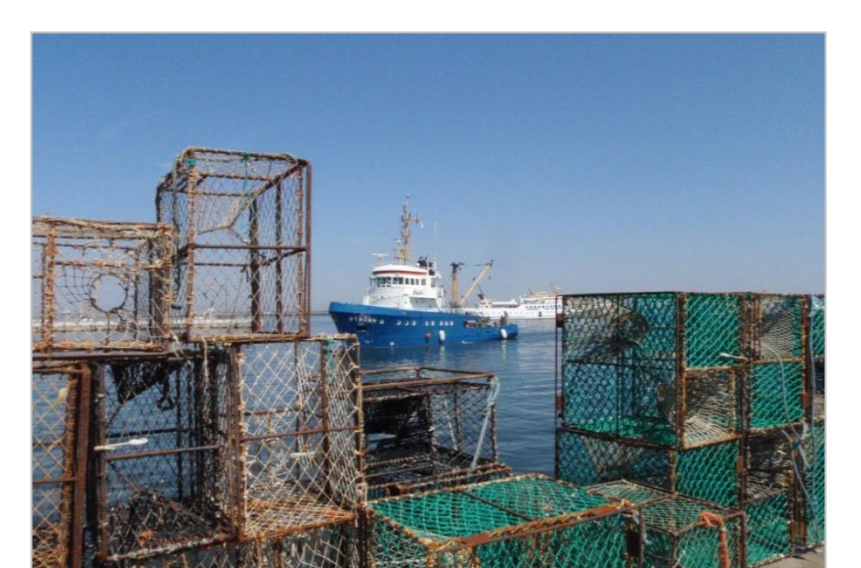
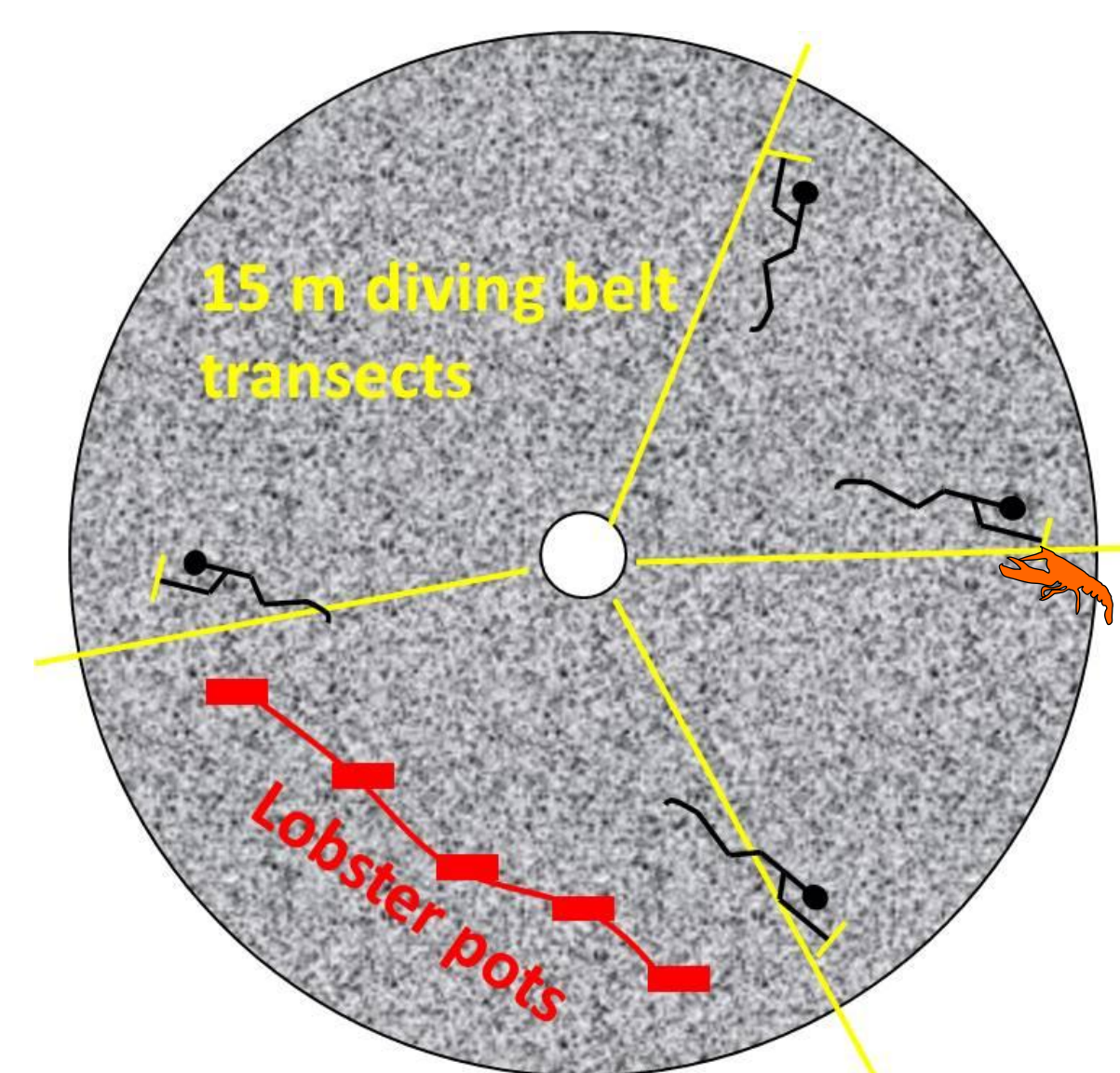
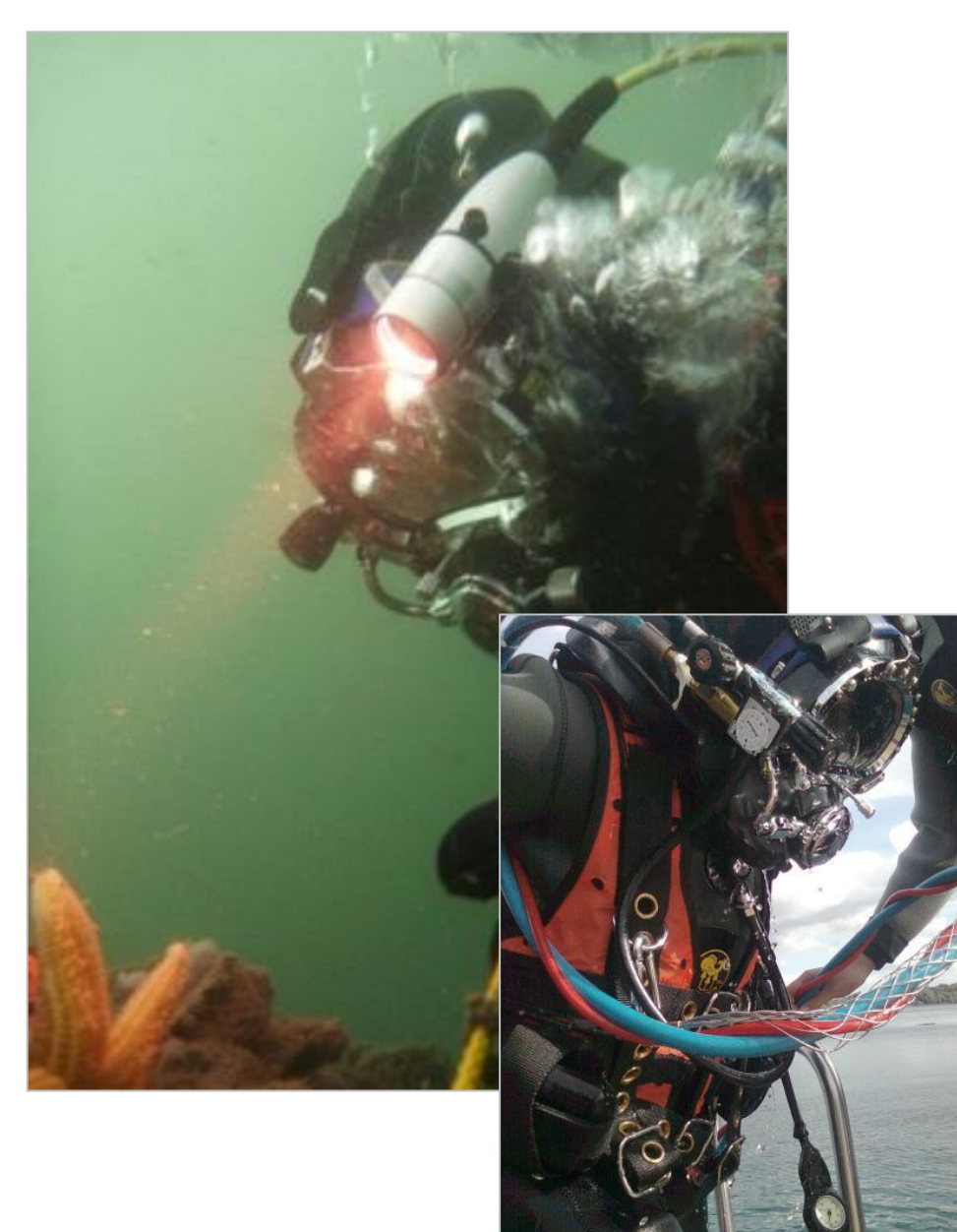
Experimental design



3,000 marked juvenile individuals (total length 8-10 cm) will be released at four scour protections. Hatching and rearing has already been initiated in spring 2013.

Baseline study und lobster release in summer 2014 Recapture and detection in summer 2015

Methods: Surface supplied diving belt transects and pot fishery



Scientific offshore diving to quantify the mobile demersal megafauna inclusive lobster. Belt transects 15 m long and 1 m wide.

Pot fishery with commercial lobster pots to detect and identify the tagged individuals.

Funding

