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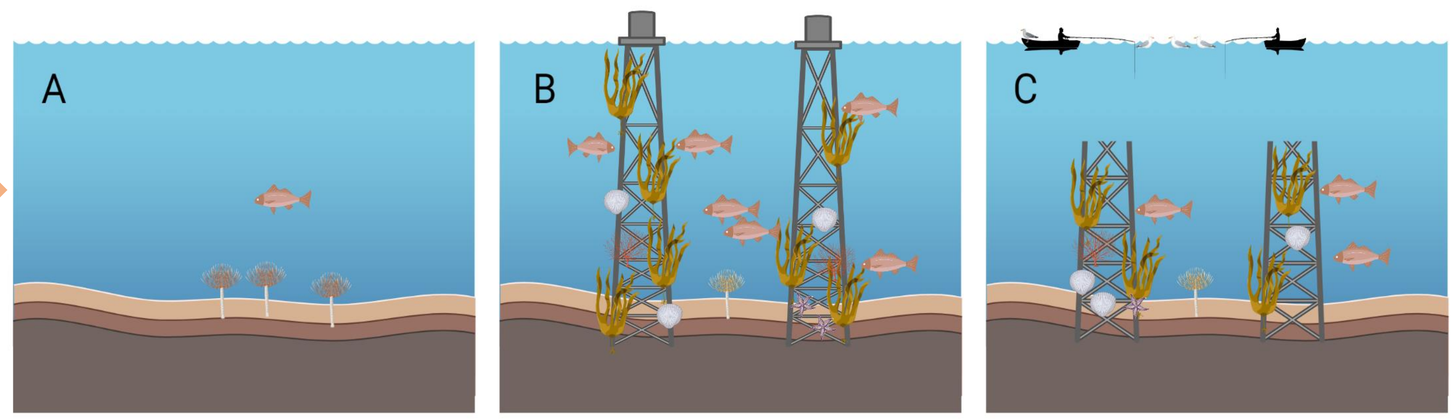
Decommissioning

Decommissioning options: what could happen to the fish?



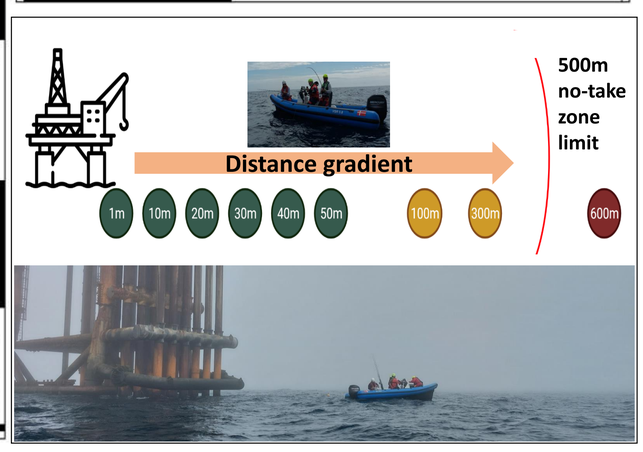
Aim

Provide an understanding of the potential role that platforms play for fish communities in the Danish North Sea using a single oil and gas platform as a study case.

Methods

A) We repeated (n=16) 20' fishing sets at increasing distances from an oil and gas platform in the Danish North Sea.

Number of individuals is used as a proxy of fish abundance.



B) We used generalized additive models to explore the association between fish abundance per set, or Atlantic cod individual sizes, with distance to platform.

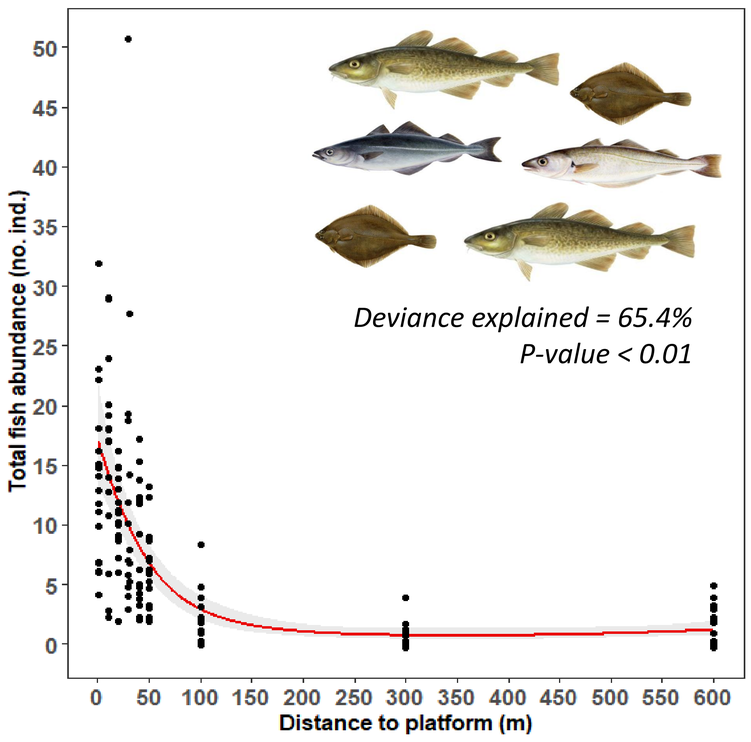
C) The fitted models were used to predict fish abundance or individual fish size at increasing distances from the platform.

Results

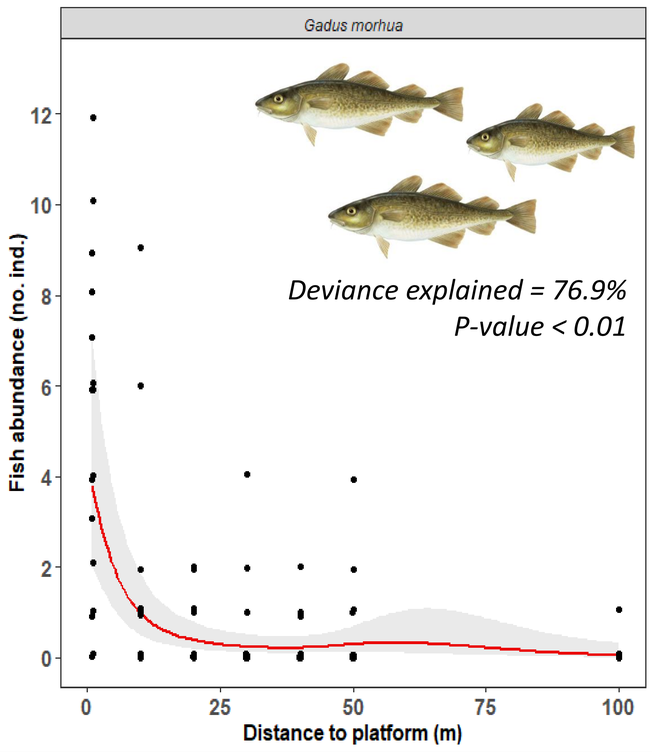
We captured 12 fish species in the area, all occurred within 20m off the structure. Total fish abundance, Atlantic cod abundance, and Atlantic cod individual size were associated with distance from the platform.

Plotted predicted values. In the three plots we present the fitted values (red curve), 95% confidence intervals (grey shading), and observed values (black dots).

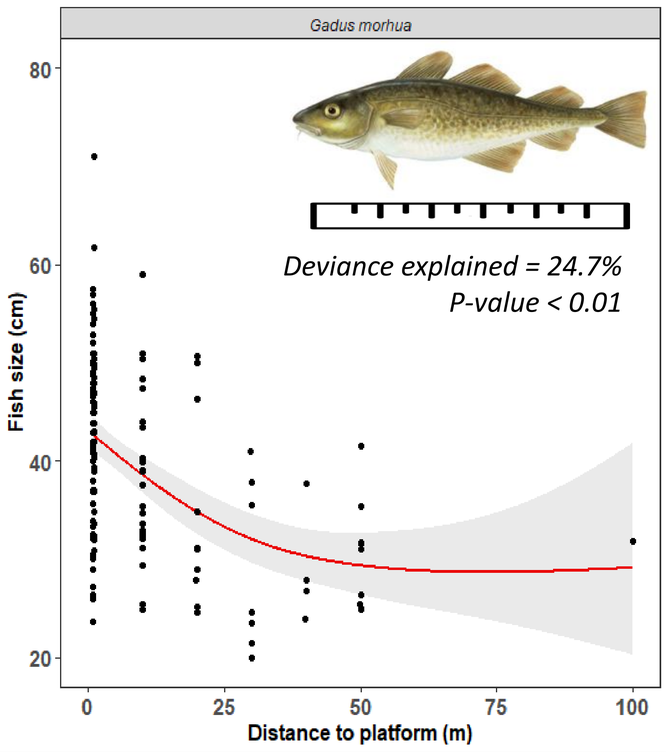
Total fish abundance



Cod abundance



Cod individual size



Outcome

The platform seem to provide a suitable habitat for several fish species, including threatened commercial species such as Atlantic cod. Further analyses will explore similar spatial patterns for the remaining observed species.

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