

Preliminary study of the water gradient within a Belgian offshore windfarm

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Introduction

Hard substrates are used as a habitat of fouling organisms. The latter are active “biofilters” releasing compounds in the water column. The aim of this study is to identify the changes in the water characteristics due to biodeposition.

Methodology

- Study area: C-Power windfarm (Fig. 1)
- Niskin bottles at 15 m along the current
- Stations in front – within – behind the OWF (Fig. 2)
- Studied characteristics: SPM, Chl a, POC and Phaeopigments

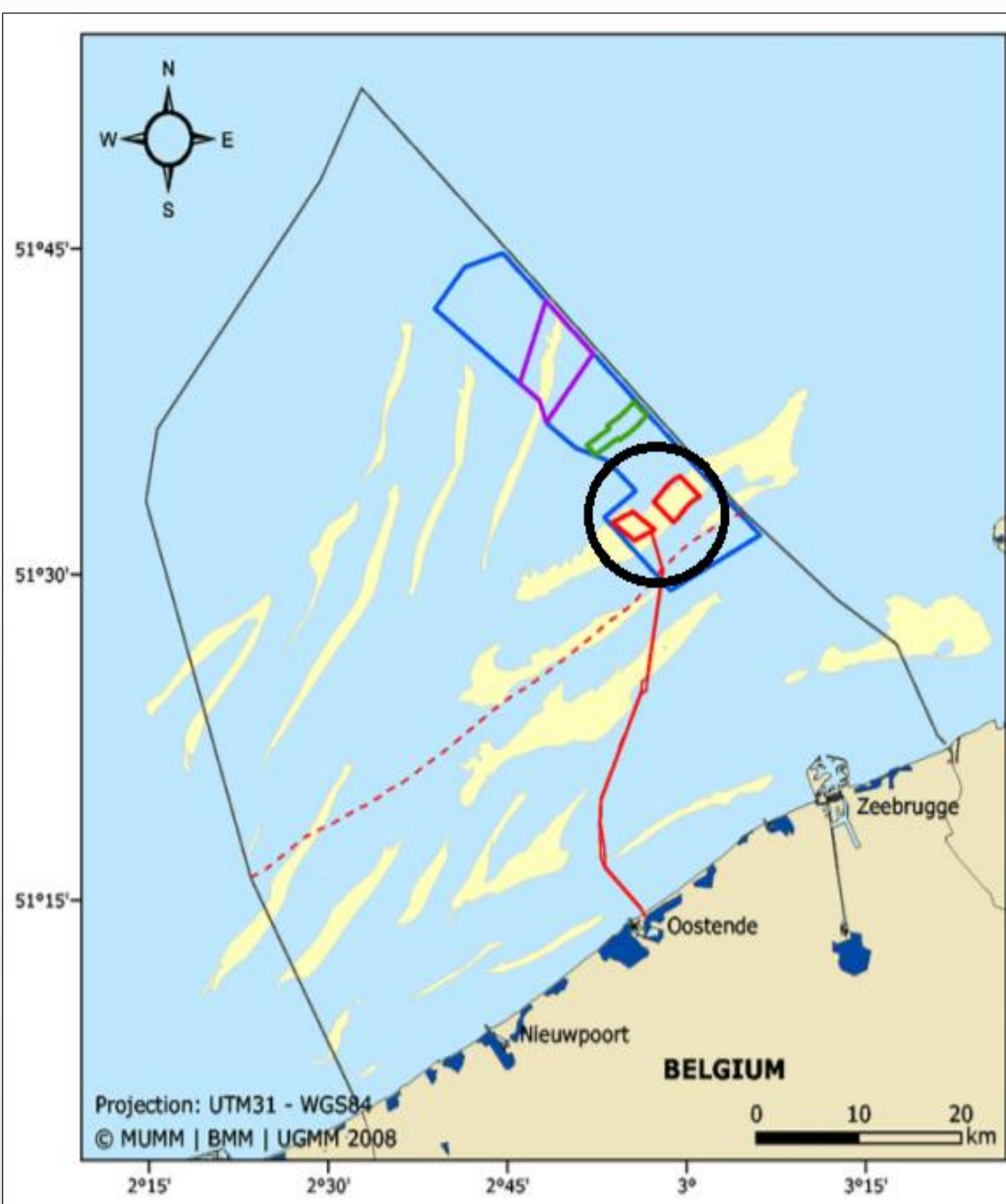


Figure 1: Position of C-Power in the Belgian North Sea.

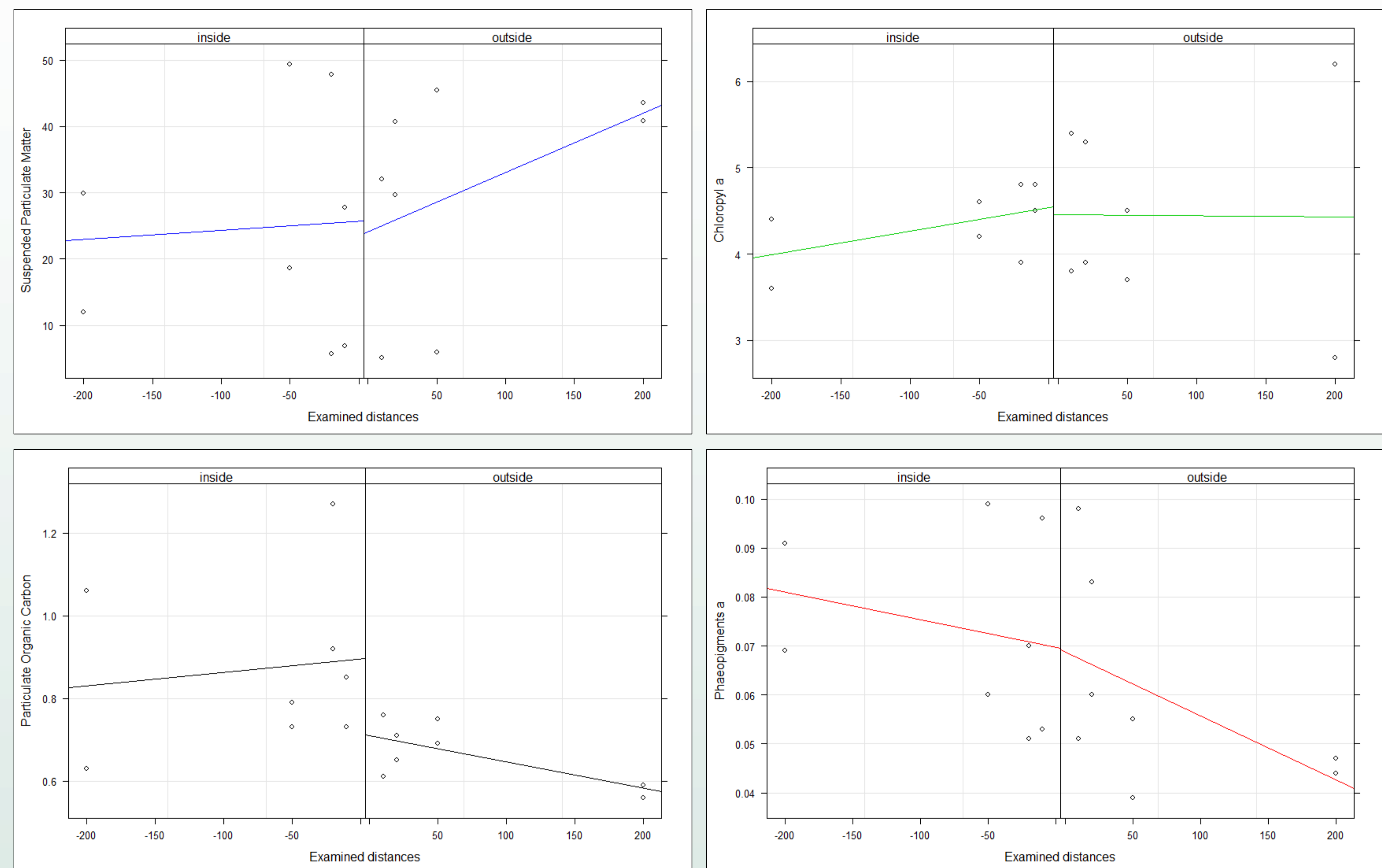


Figure 2: Comparison of the studied water characteristics inside and outside the OWF. Top left: SPM, Top right: Chl a, Bottom left: POC and Bottom right: Phaeopigments a.

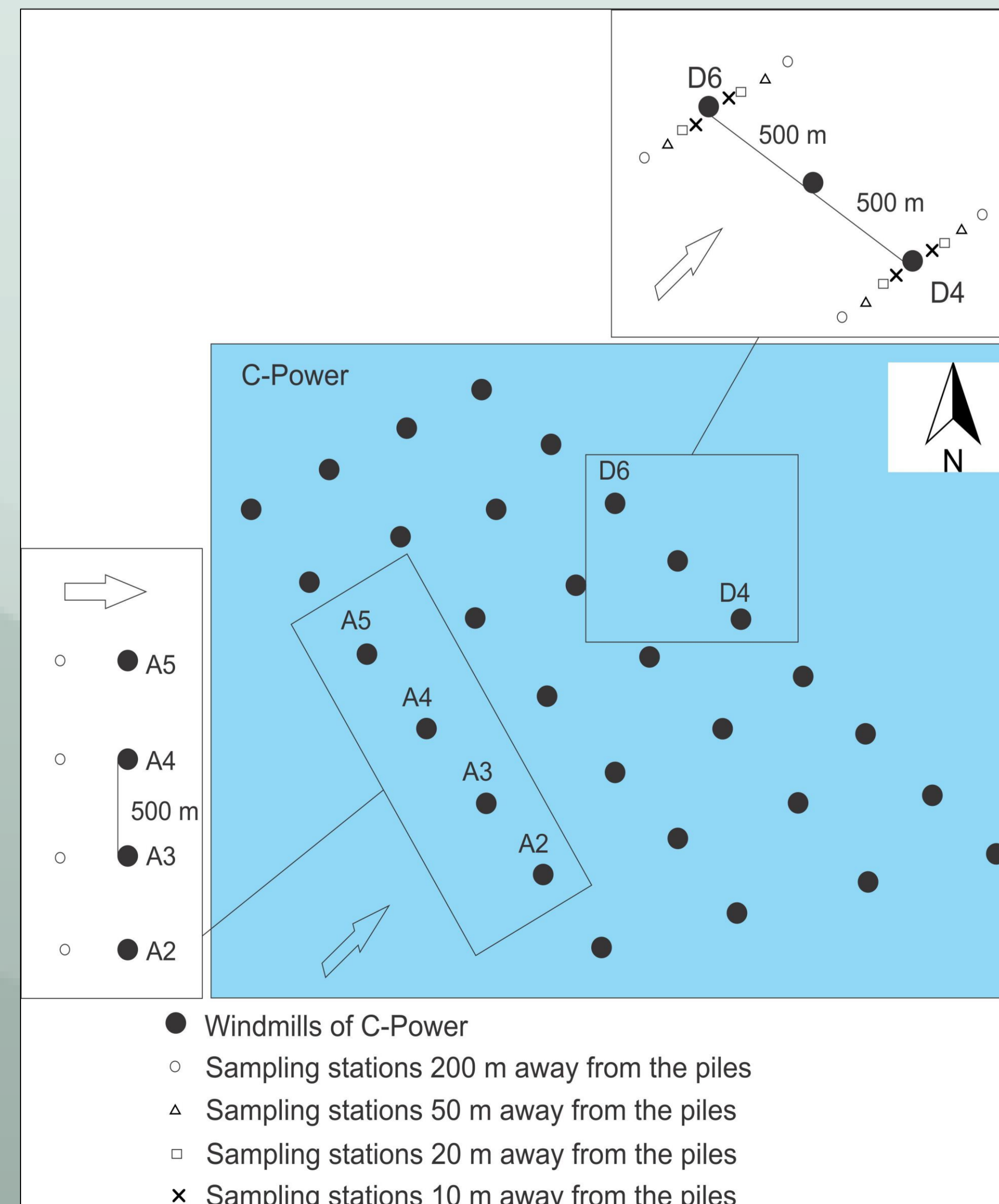
Preliminary results

- Variations of compounds at Figure 2
- SPM: increase after the examined piles
- Chl a: no strong pattern
- POC: slight increase inside and decrease outside the OWF
- Phaeopigments a: decline according to the current

Acknowledgements

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Figure 2: Sampling scheme of the study of the water gradient along C-Power.



Discussion and future work

- Phaeopigments’ decline show a pattern that could be linked with fouling communities
- More replicates/stations needed to have accurate results
- What about current dynamics?
- To be continued...

References

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