

# Presence of guillemots in wind farms

WOZEP 15 March 2018, Mardik Leopold



# Why guillemots ?

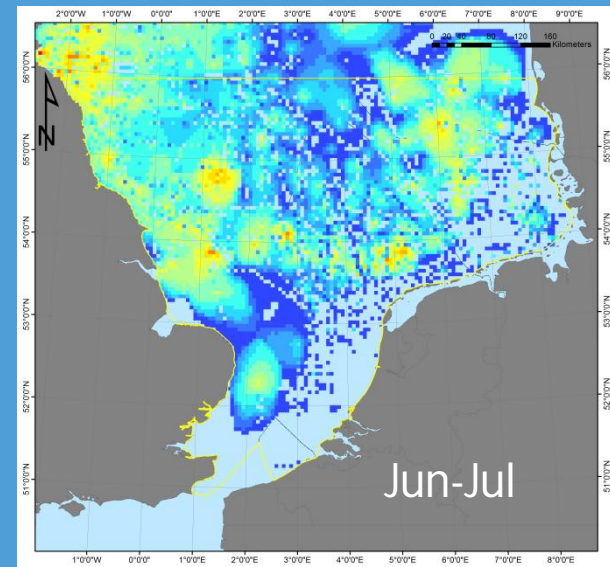
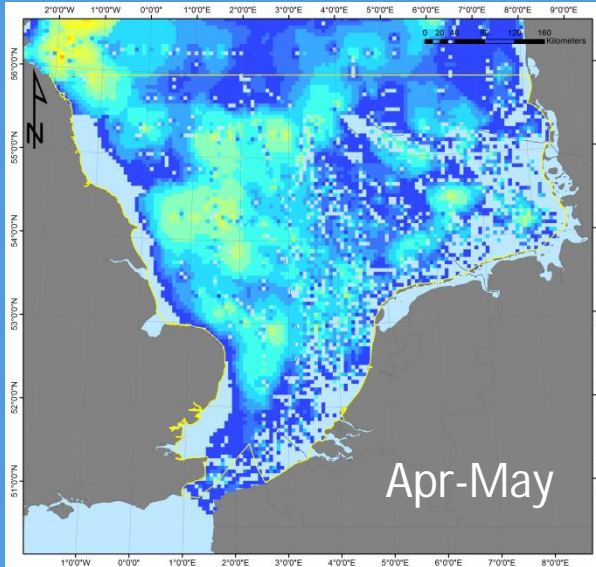
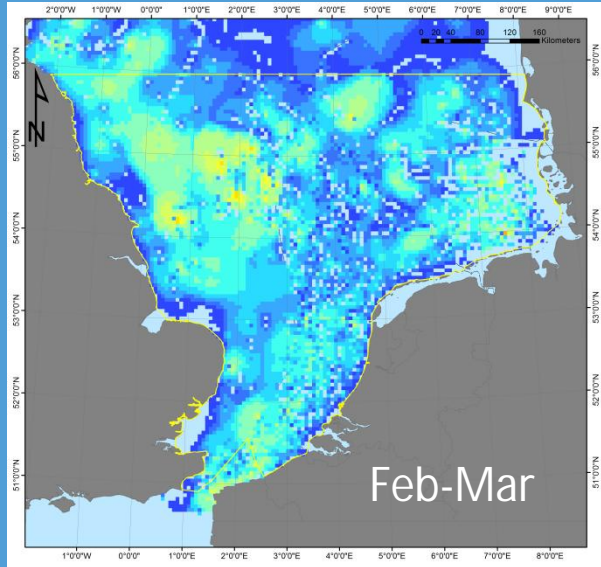
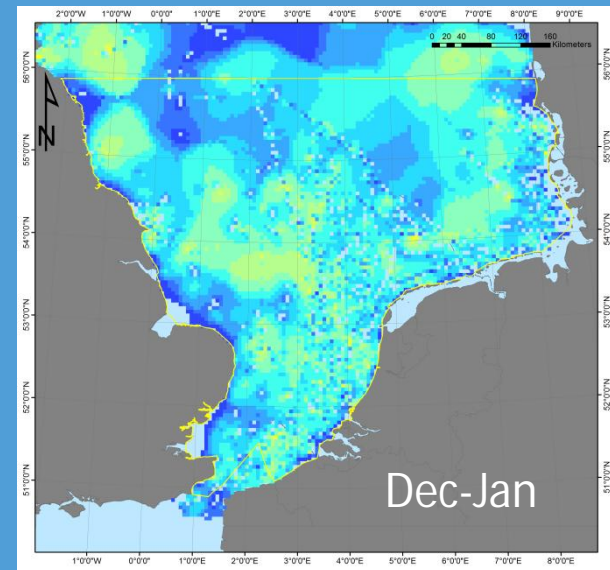
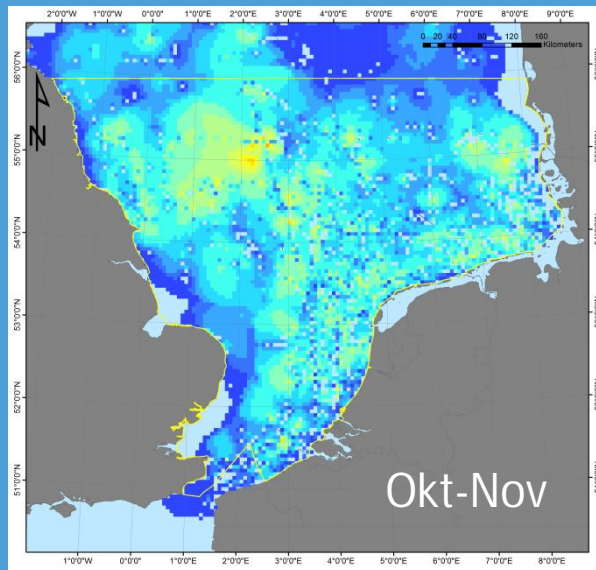
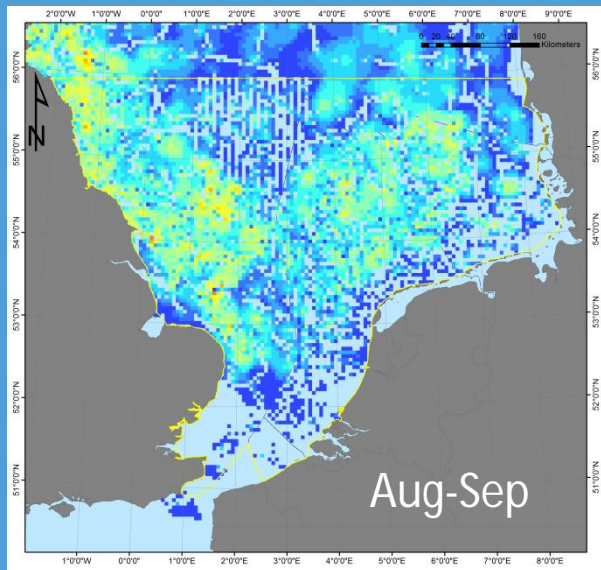


■ Simple model-species:

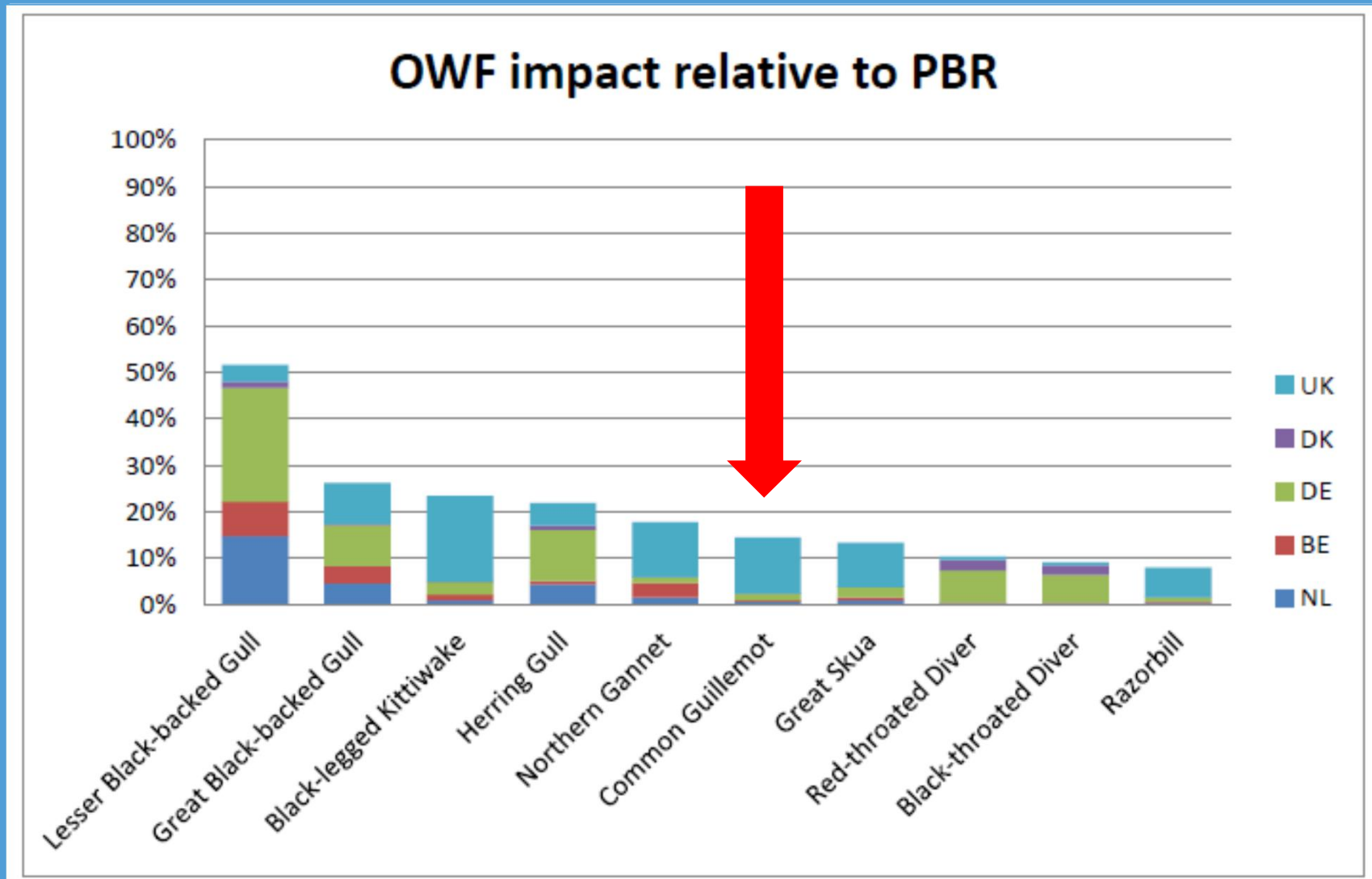
- Omni-present (relevant to all North Sea countries)
- Common
- Gets displaced by OWFs
- No collision risk; only habitat loss
- No attraction to fishing vessels (clean distribution)



# At-sea distribution Common Guillemot



# Population effects?



■ Underlying assumptions:

- 100% displacement
- 10% of displaced birds die

X

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- No effect of OWF design
- No effect of location
- No effect of season

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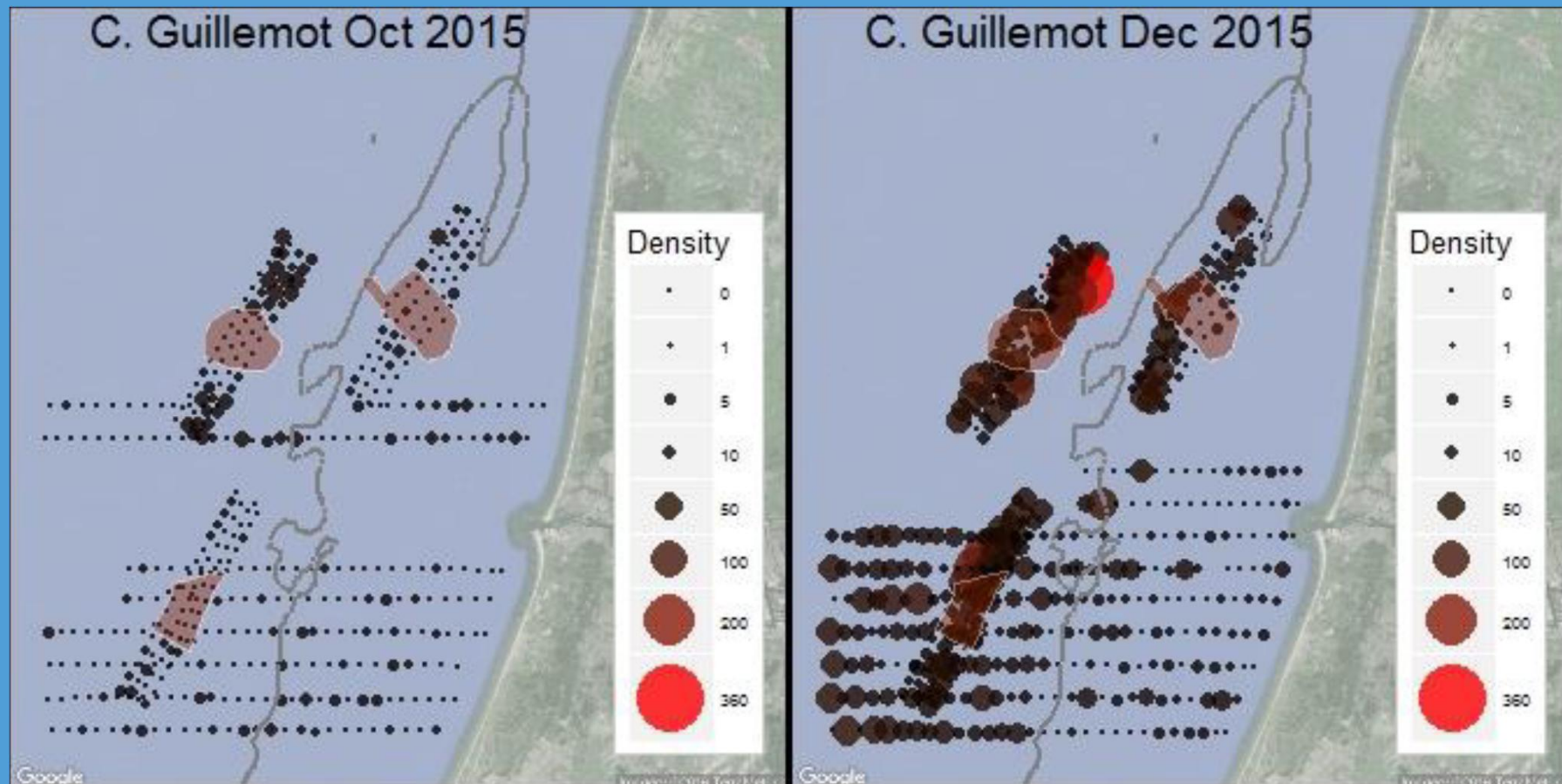
Only surface area  
of OWF matters

- Changes within OWF are due to OWF only
- Background density does not matter
- Birds do not adapt / learn

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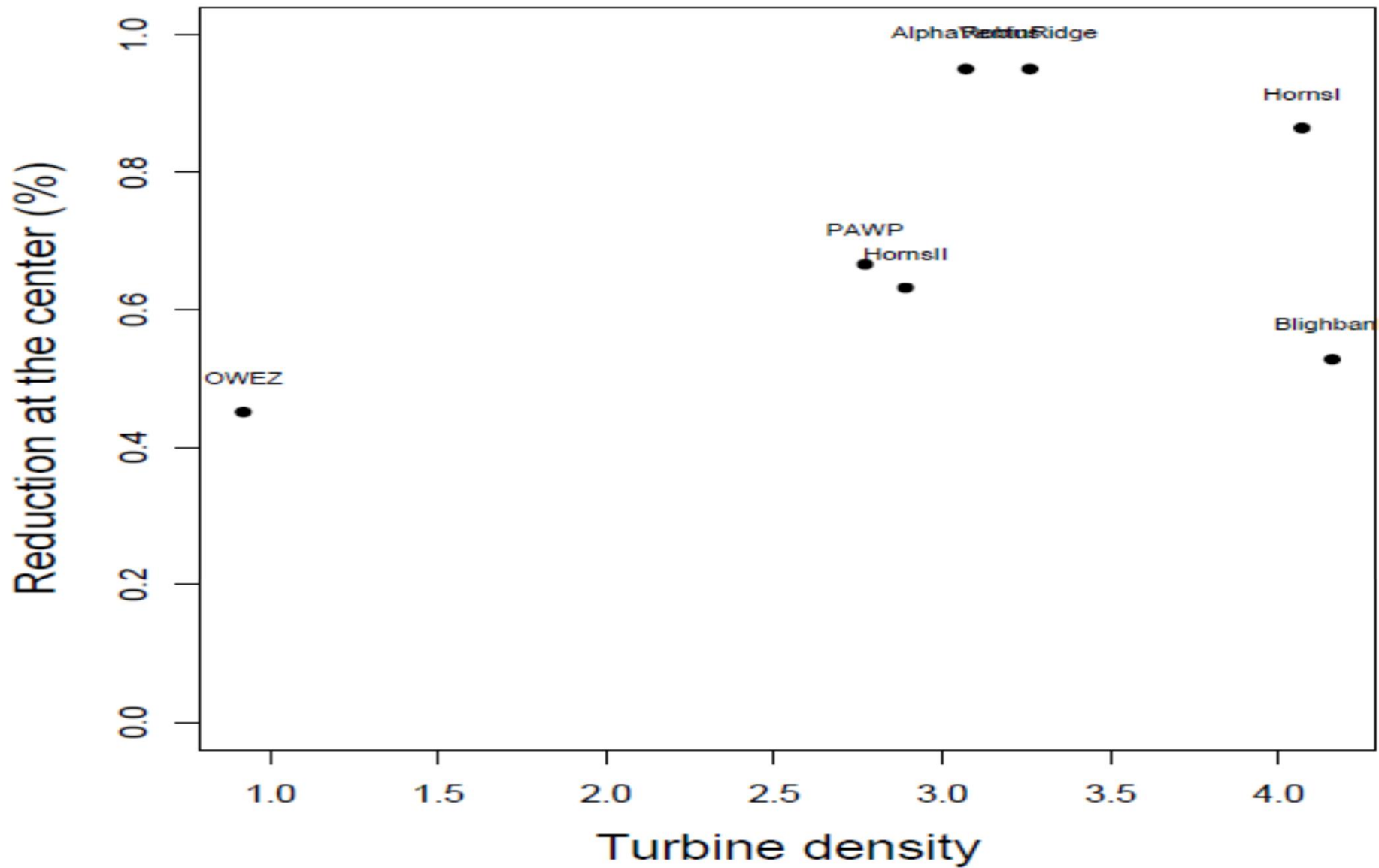
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Skov H., Heinänen S., Lazcny M. & Chudzinska M. 2016  
Offshore Windfarm Eneco Luchterduinen.  
Ecological monitoring of seabirds, T1 report

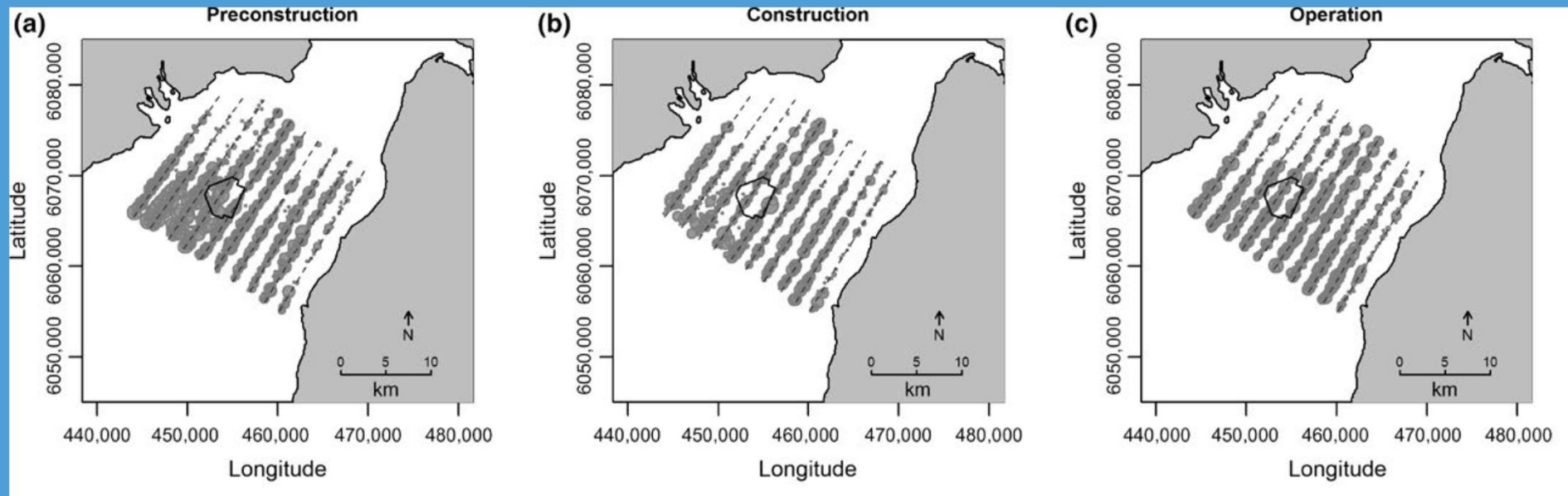


# OWF design





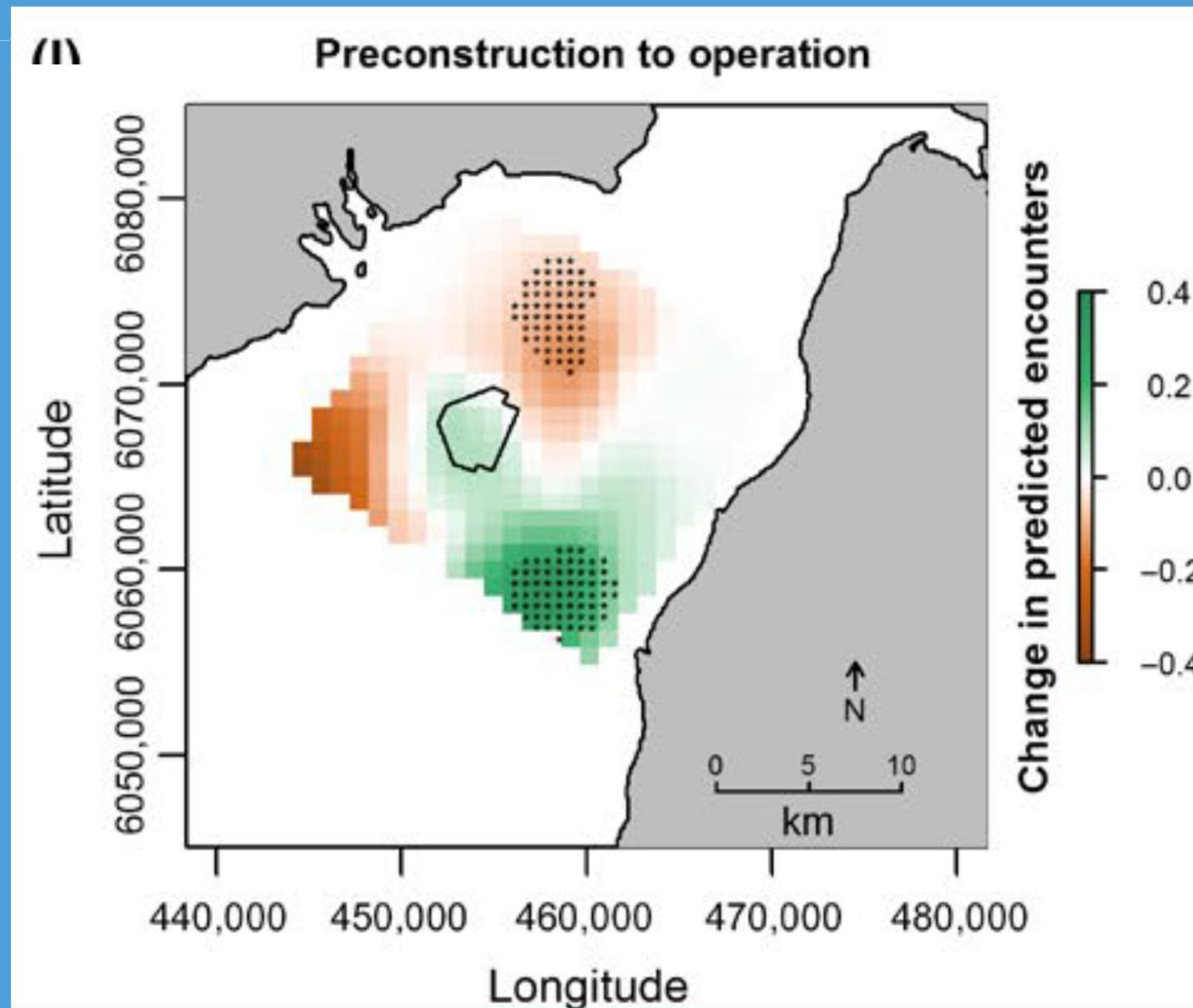
# Robin Rigg OWF: guillemots



Vallejo et al. 2017. Responses of two marine top predators to an offshore wind farm. *Ecol. Evol.* 2017: 1-11.



# Robin Rigg OWF: guillemots





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