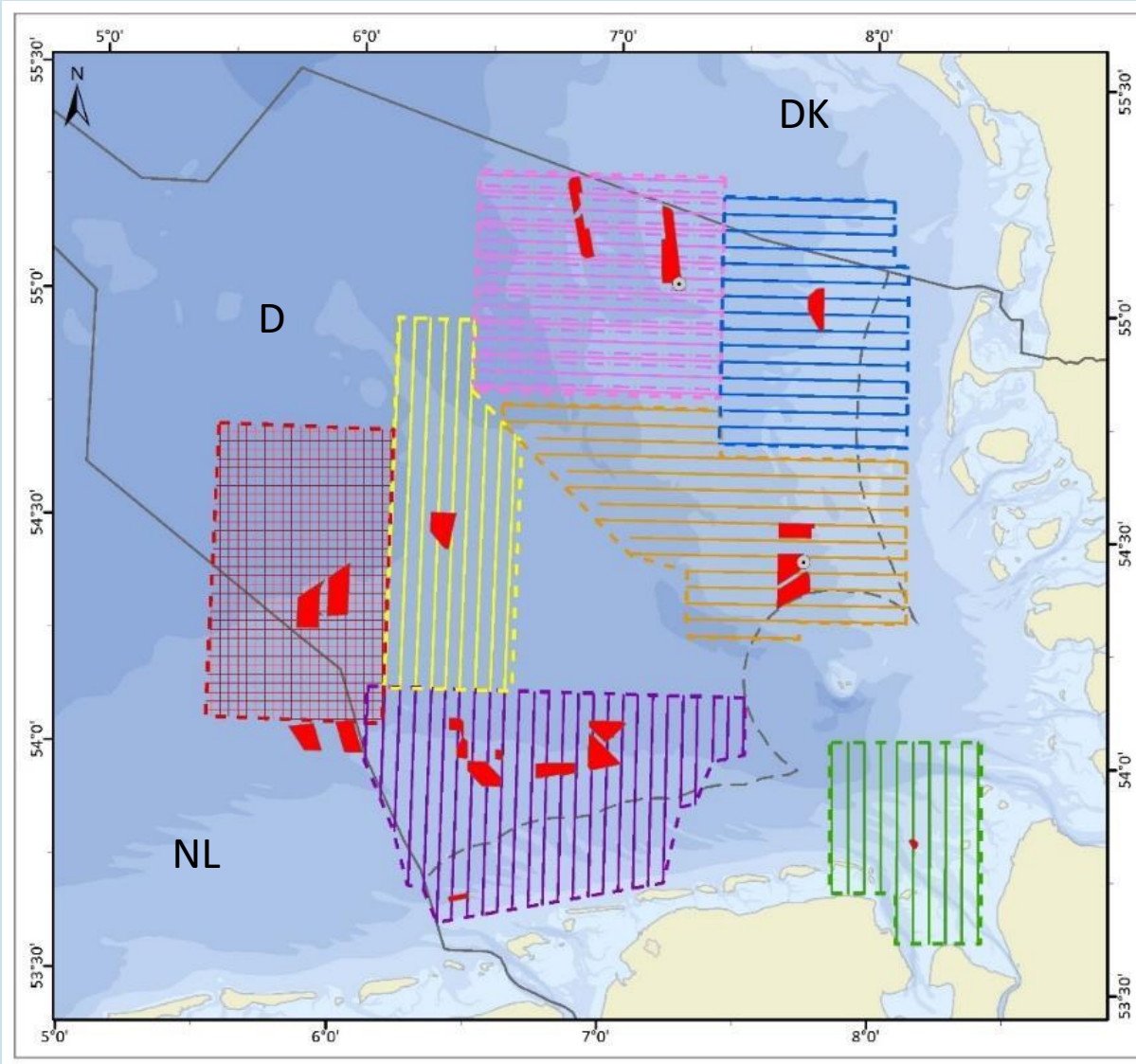


# Harbour porpoises in the southern North Sea – seasonal migration from East to West?

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Raúl Vilela, Miriam Brandt, Ansgar Diederichs, Helmut Wendeln

# Study area and design

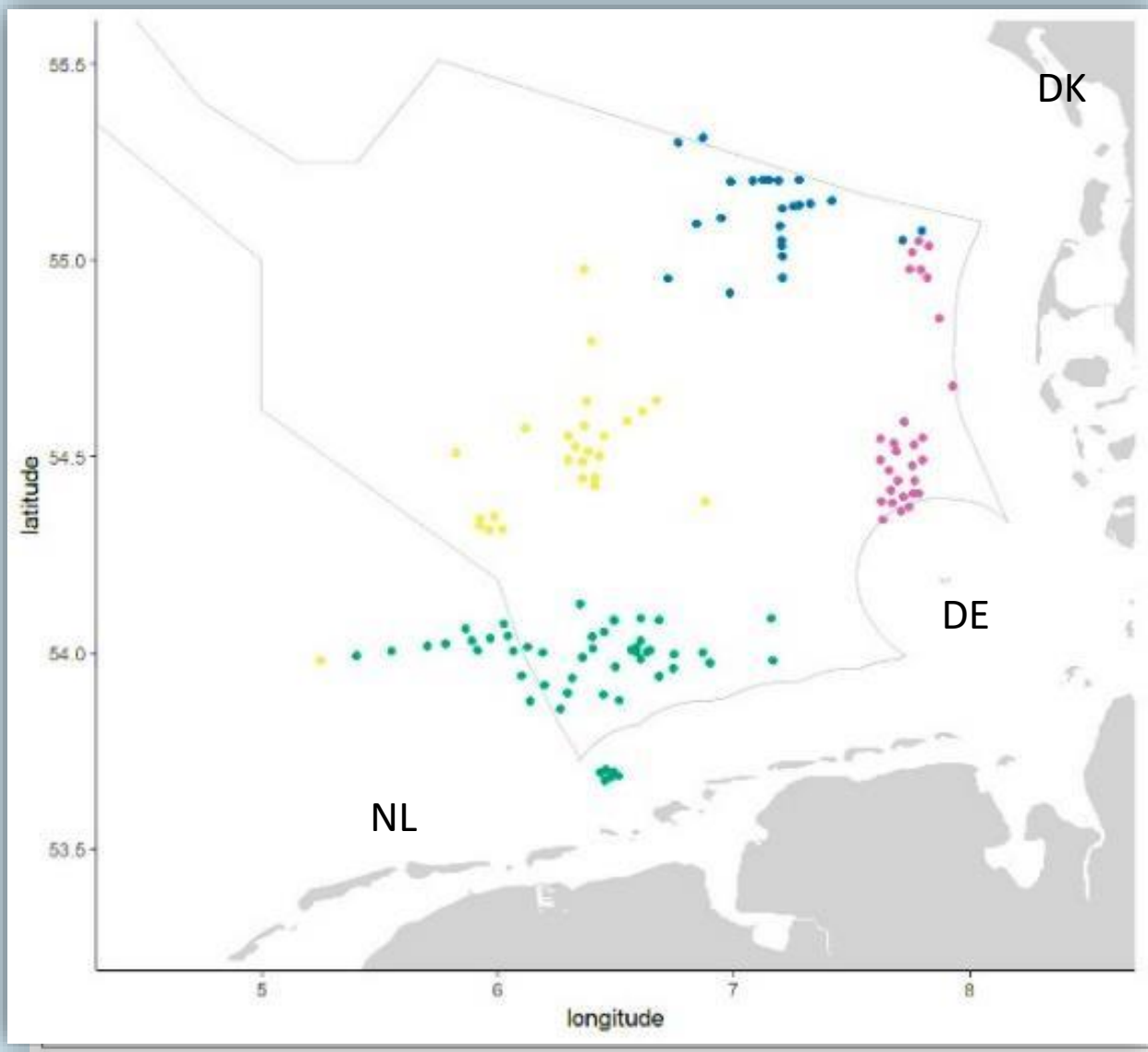


**Flight data → good spatial resolution**

- data: 3 years (2014 – 2016)
- 172 flight surveys from 7 windfarm areas covering large parts of the German Bight

**Passive acoustic monitoring → good temporal resolution**

# Study area and design



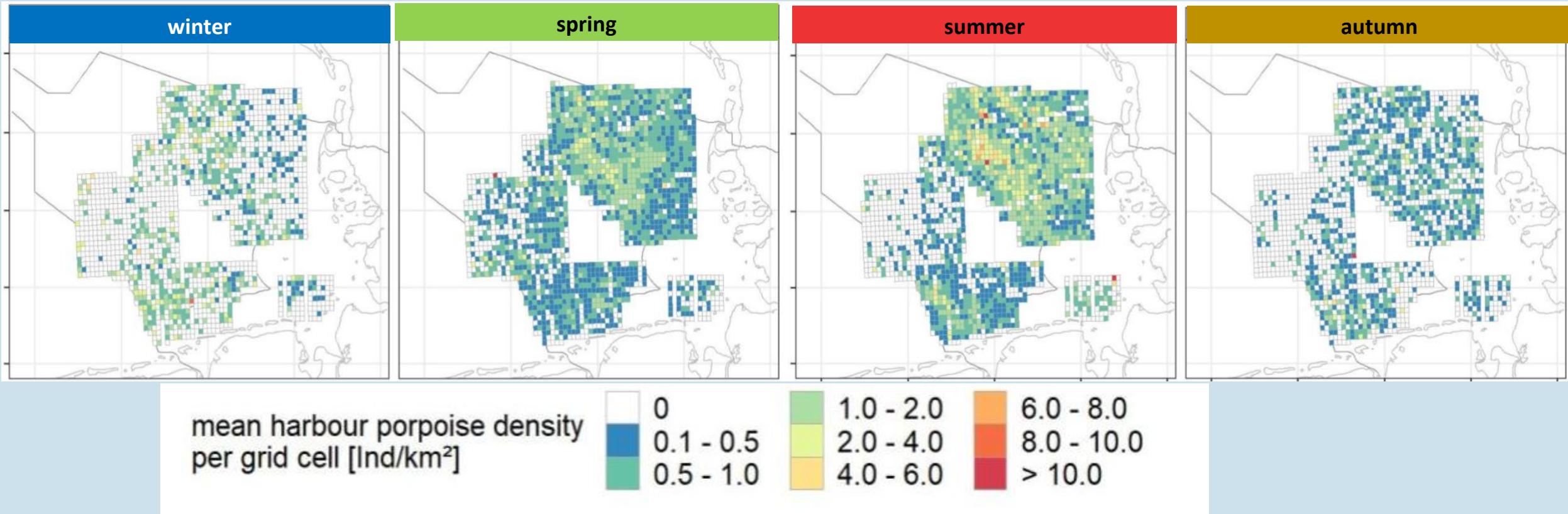
## Flight data → good spatial resolution

- data: 3 years (2014 – 2016)
- 172 flight surveys from 7 windfarm areas covering large parts of the German Bight

## Passive acoustic monitoring → good temporal resolution

- data: 7 years (2010 – 2016)
- 130 POD locations
- 79,394 recording days

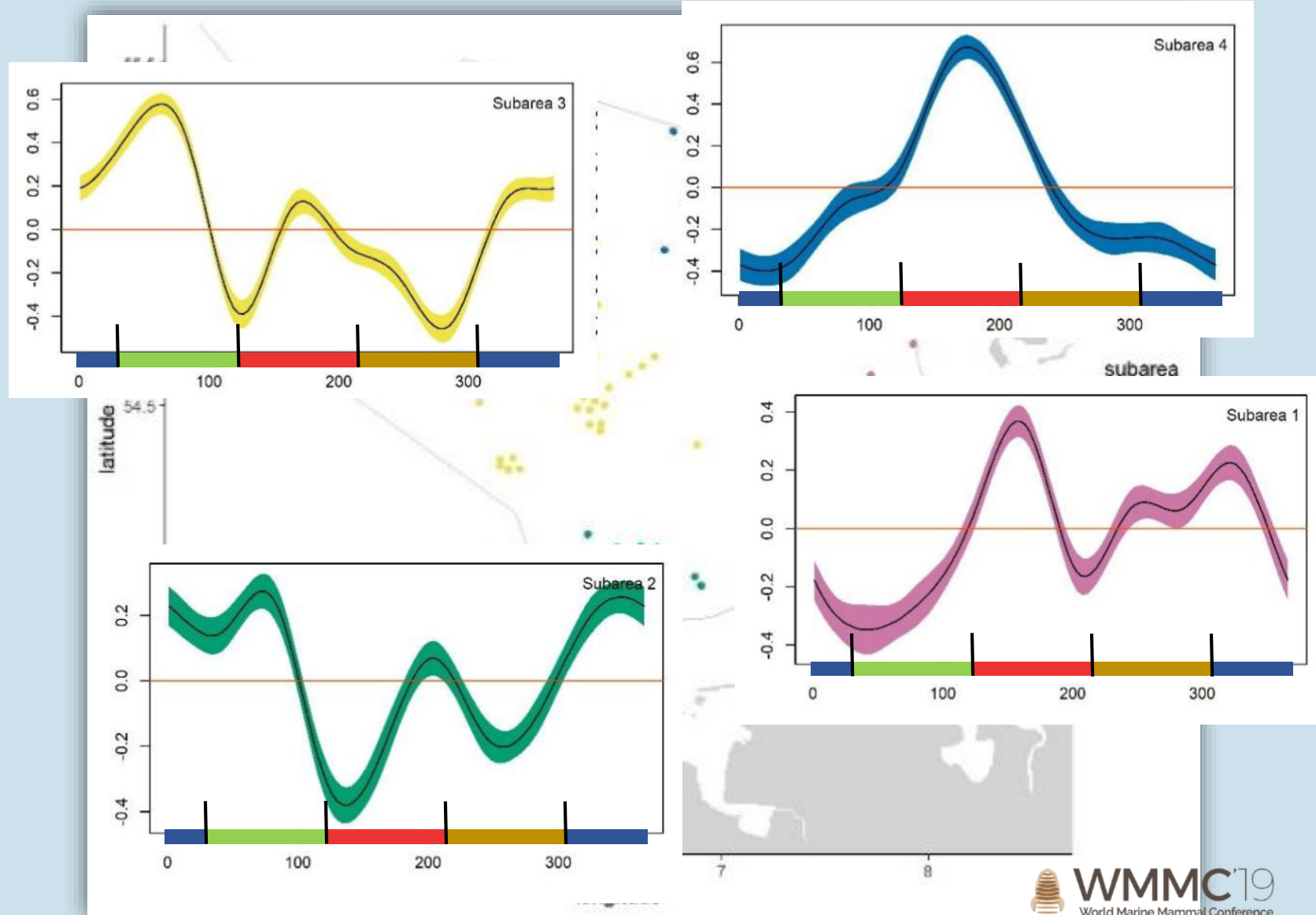
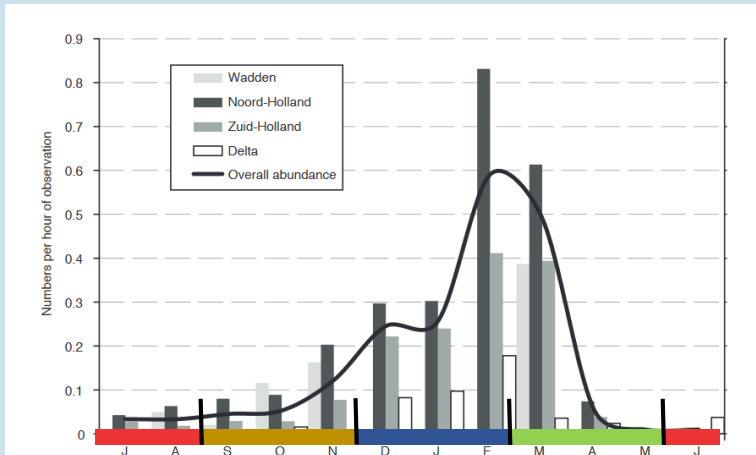
# Seasonal and spatial distribution (flight data)



# Seasonal distribution of porpoises per subarea (C-PODs)

- 4 subareas created based on environmental variables
- one separate model (GAMM) for each subarea
- including covariates such as year, temperature, wind speed, piling, POD-location, POD-ID

## Netherlands (nearshore) Camphuysen 2011



For more information on the project...  
... check out our further contributions

**Poster 1102 and talks 703 and 1357**

**Download: [www.bwo-offshorewind.de/gescha-2-studie](http://www.bwo-offshorewind.de/gescha-2-studie)**

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