

# SCANS-III

*Presentation by Dr Kelly Macleod, JNCC, UK*

On behalf of the SCANS-II Project Steering Group  
Project Coordinator: Prof Phil Hammond, SMRU,  
UK

<http://synergy.st-andrews.ac.uk/scans3/>

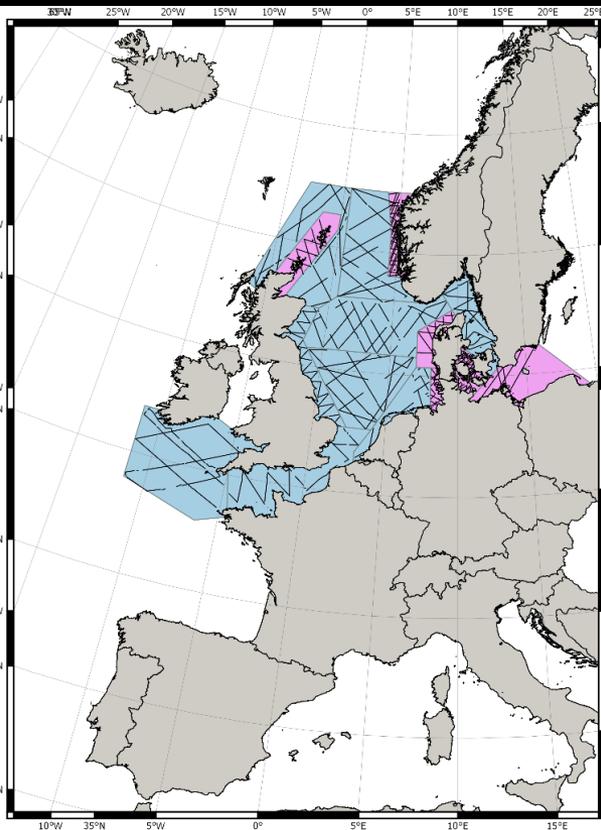
# Funders:

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- Instituto Español de Oceanografía, Spain;
- Havs- och vattenmyndigheten, Sweden;
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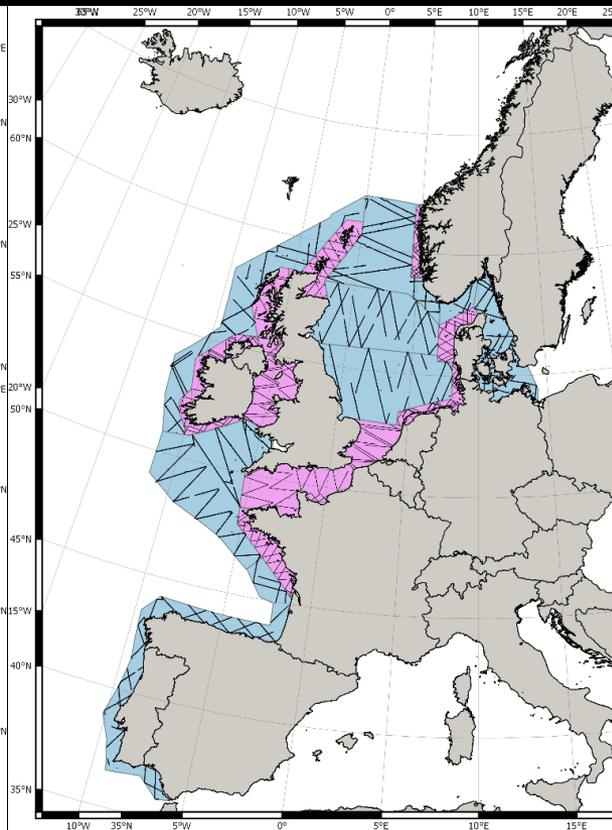
# Context

- Early 90's, concern regarding harbour porpoise bycatch
- No population size estimates
- 1992 EU Habitats Directive adopted: need to assess Conservation Status
- ASCOBANS entered into force in 1994
- Marine Strategy Framework Directive: Good Environmental Status

- Decadal series of surveys designed to generate robust estimates of cetacean population abundance & long term-trends



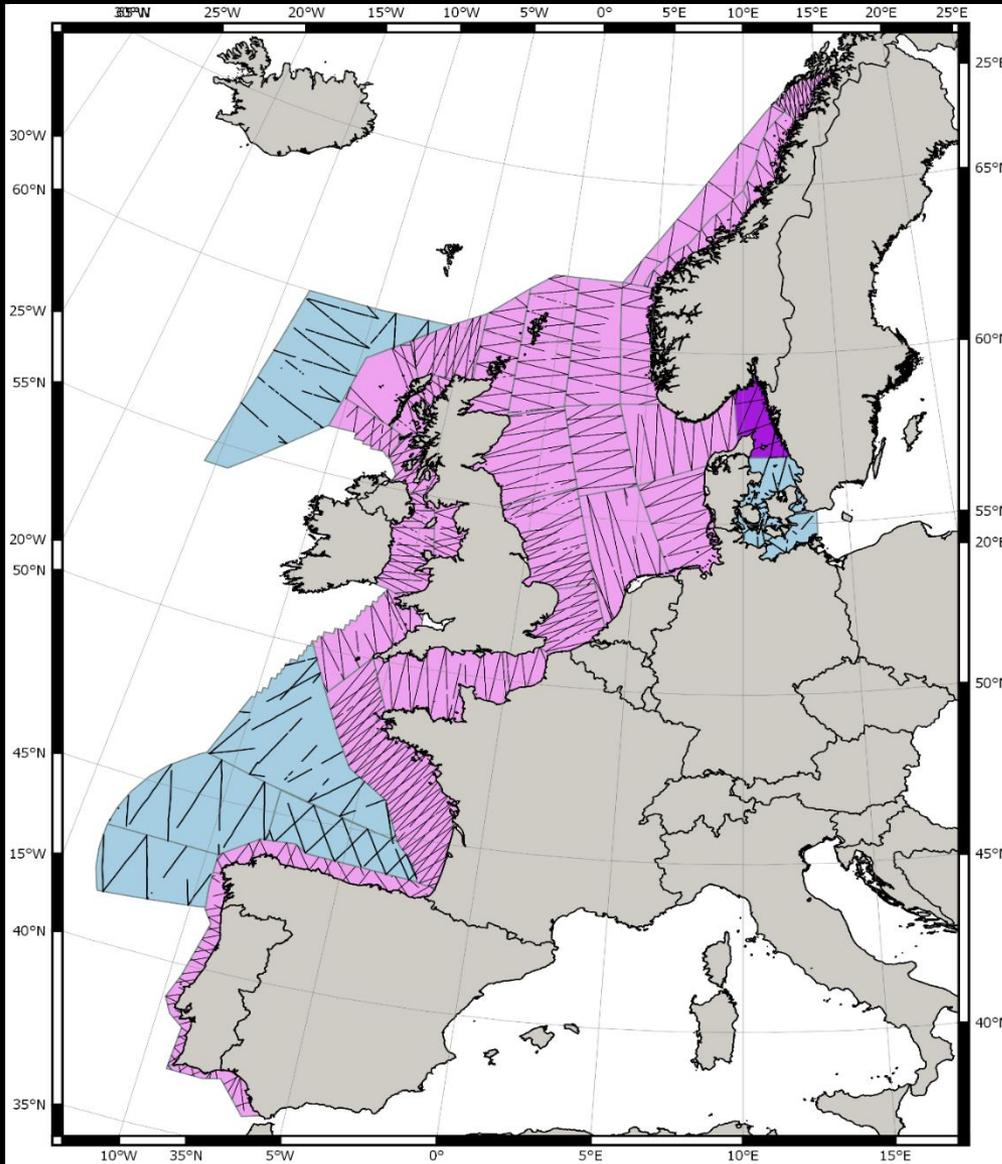
**SCANS (1994)**  
3 ships & 2 aircraft



**SCANS-II (2005)**  
7 ships & 3 aircraft

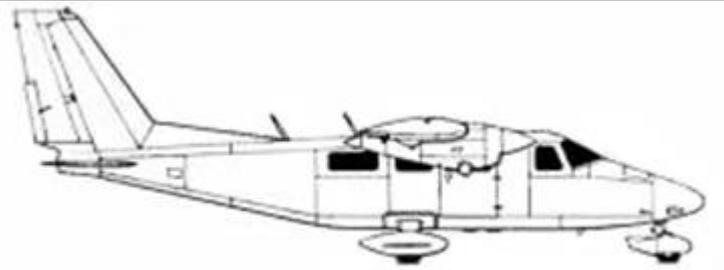


**CODA (2007)**  
5 ships

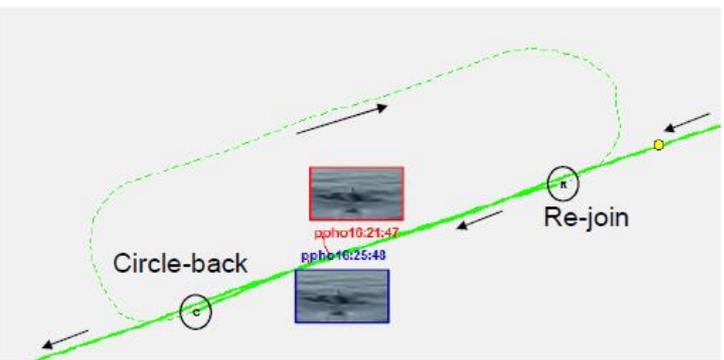


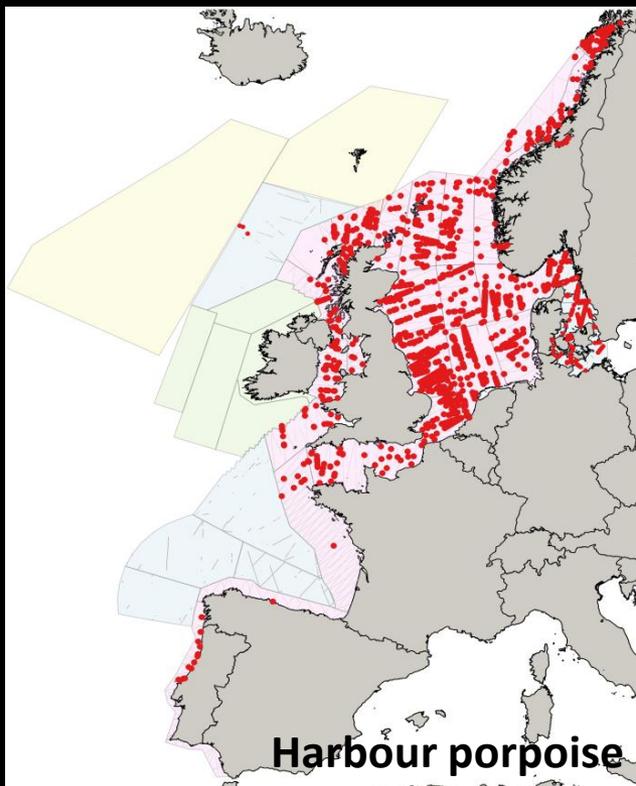
**SCANS III (2016)**  
**3 ships & 7 aircraft**



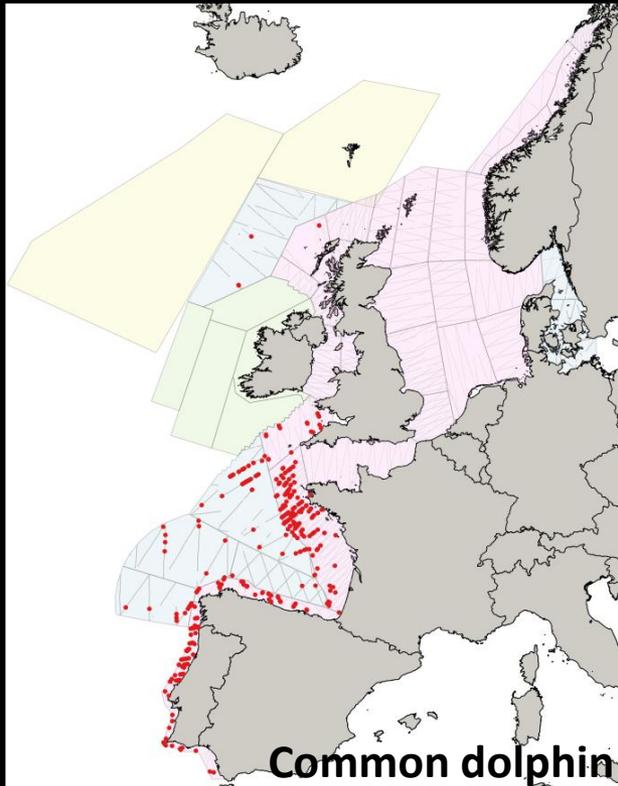


- Methods enable absolute abundance to be estimated:
- Line transect distance sampling
- Perception/Availability bias (missed animals)
- Corrected for responsive movement

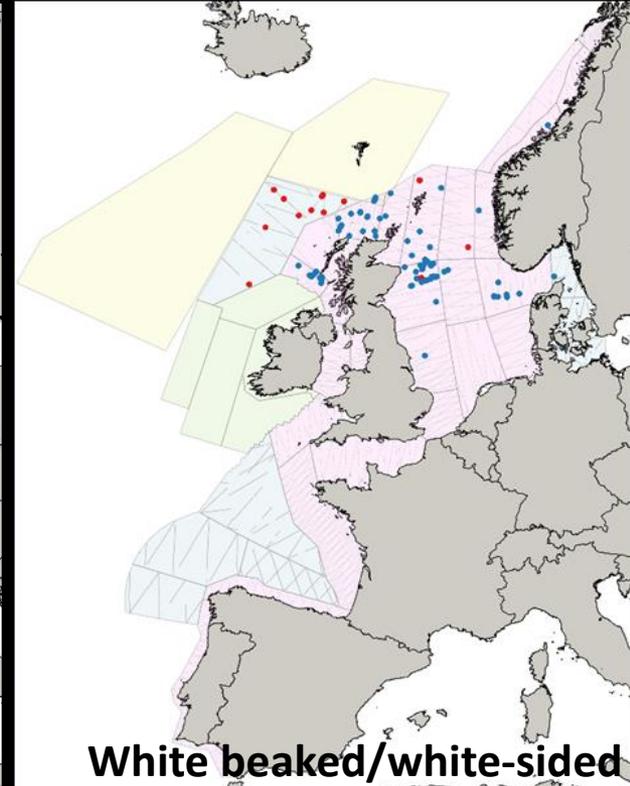




466,569 (CV=0.15)

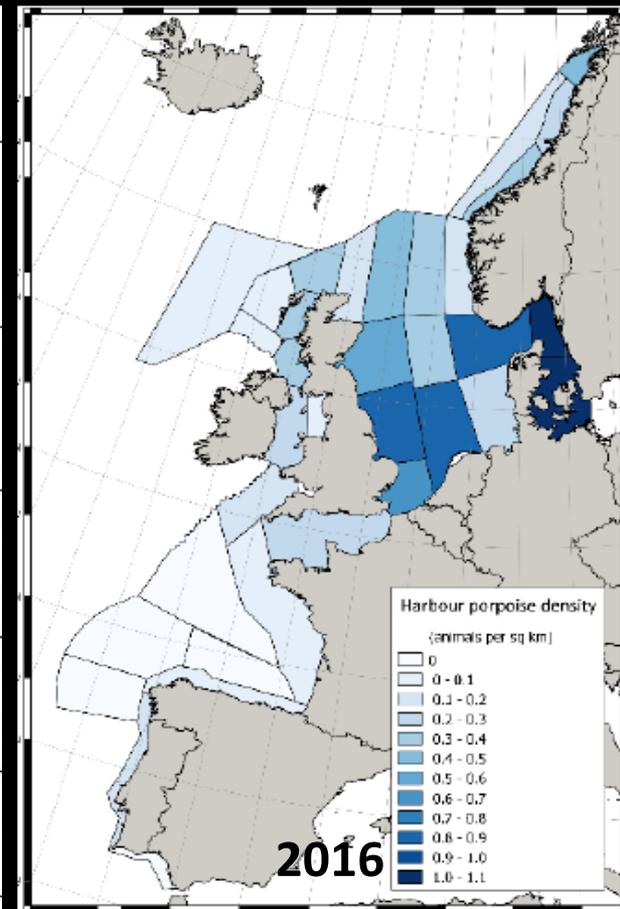
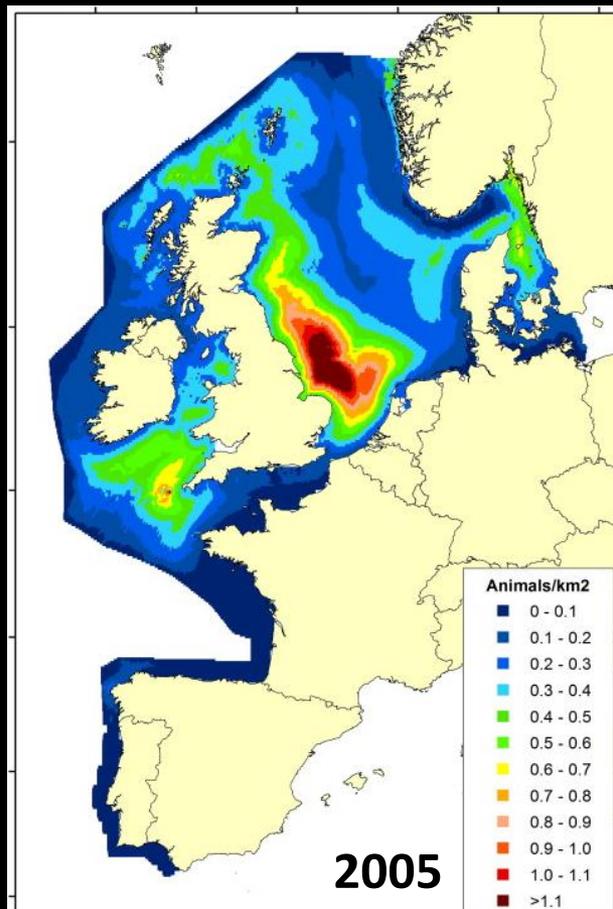
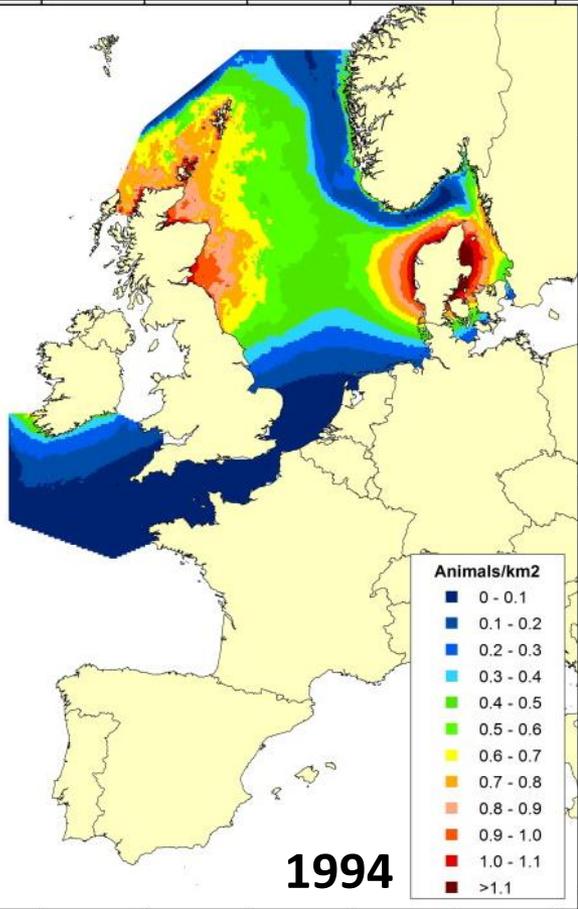


467,673 (CV=0.26)

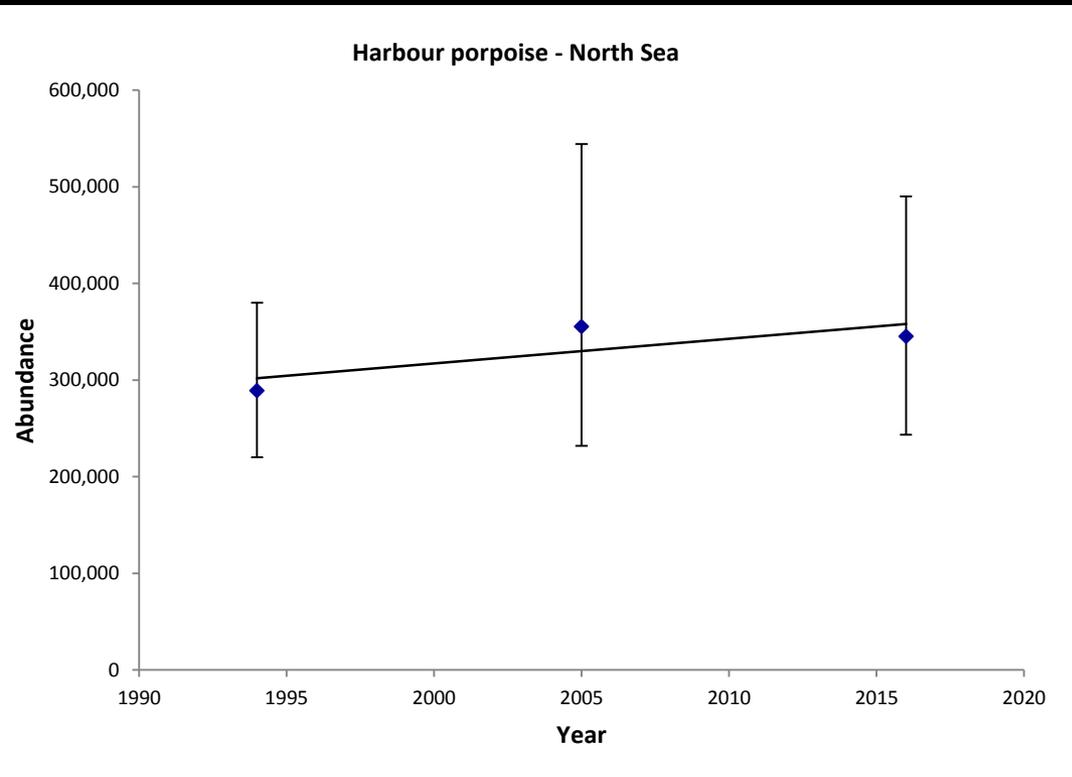


36,287 (CV=0.29)

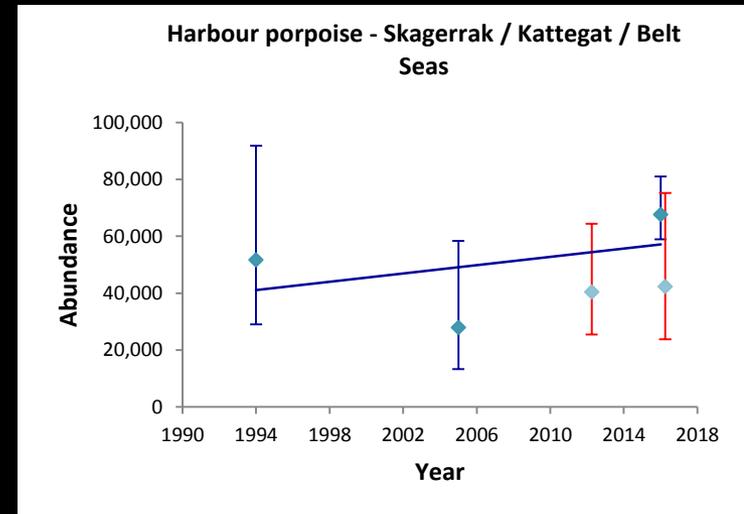
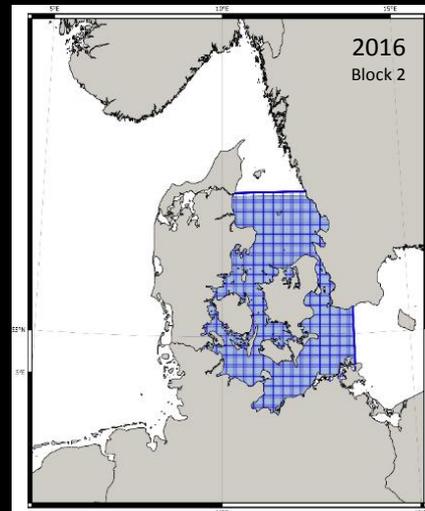
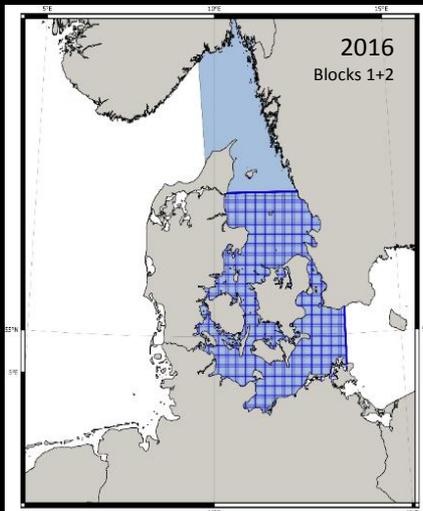
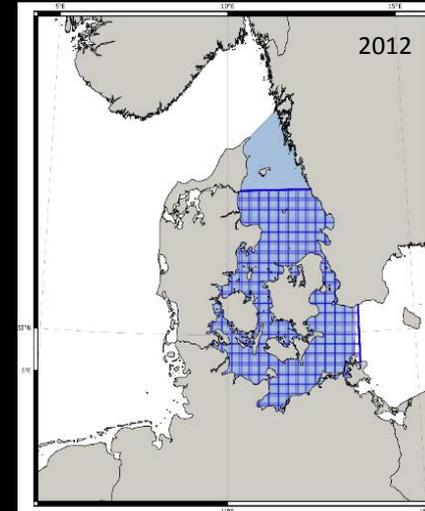
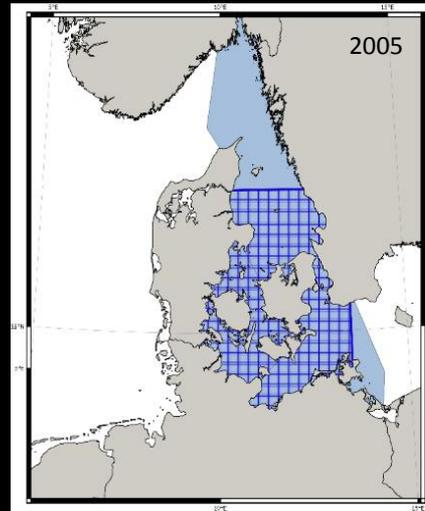
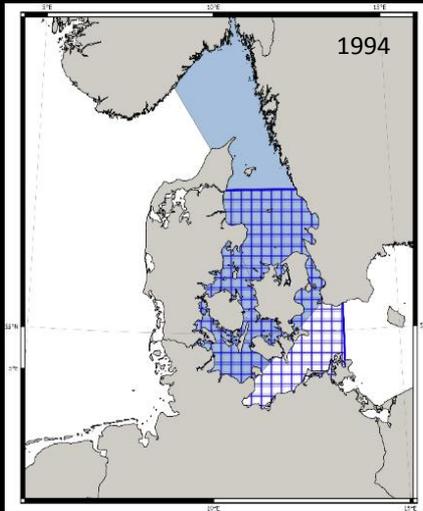
➤ Harbour porpoise shifts in distribution



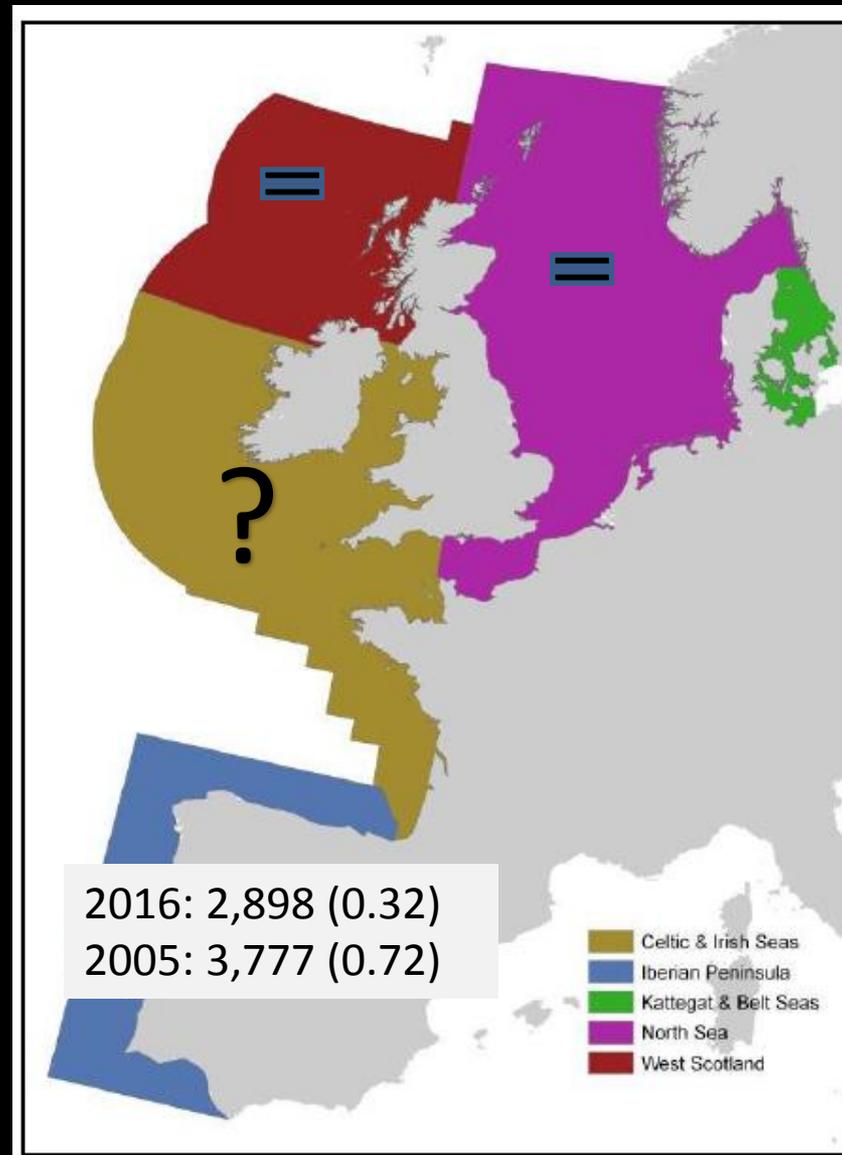
- Long term trends in abundance? North Sea for harbour porpoise, no change
- Entire area: 2005 - 519,864 (CV=0.21); 2016 - 466,569 (CV=0.15)



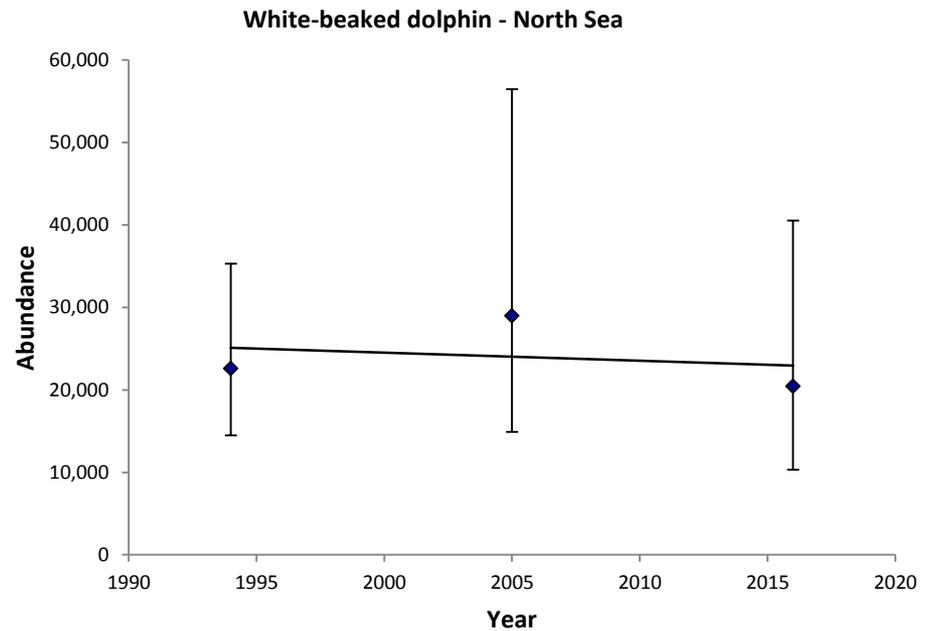
- Long term trends in abundance? Skagerrak and Kattegat for harbour porpoise.



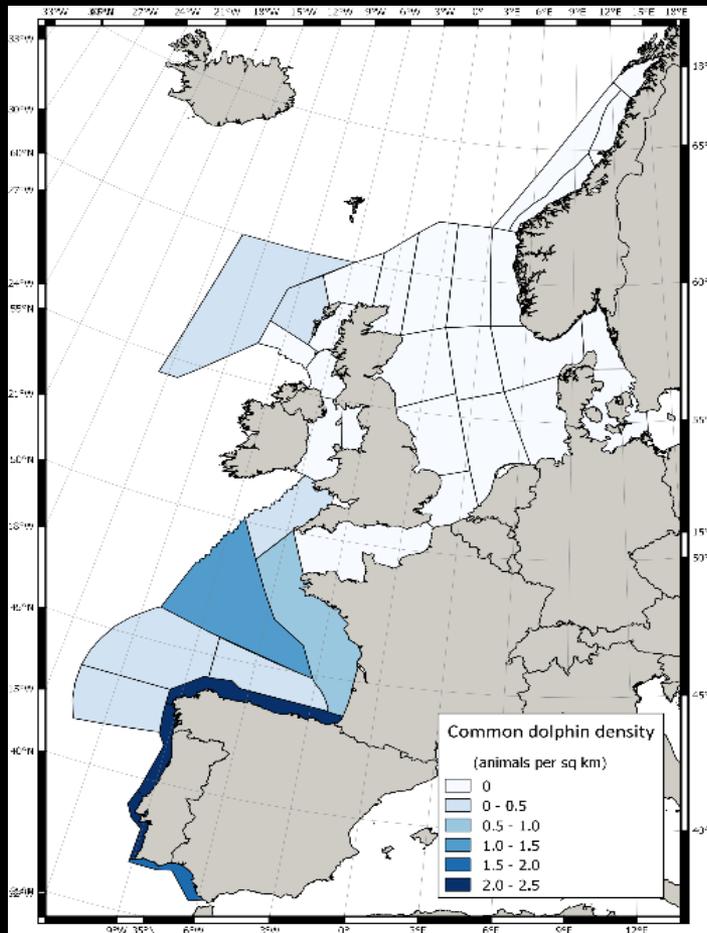
➤ ICES Assessment Units for harbour porpoise



- Long term trends in abundance? North Sea for white-beaked dolphin , no change
- Entire area: 2005 – 37,689 (CV=0.36); 2016 - 36,287 (CV=0.29)

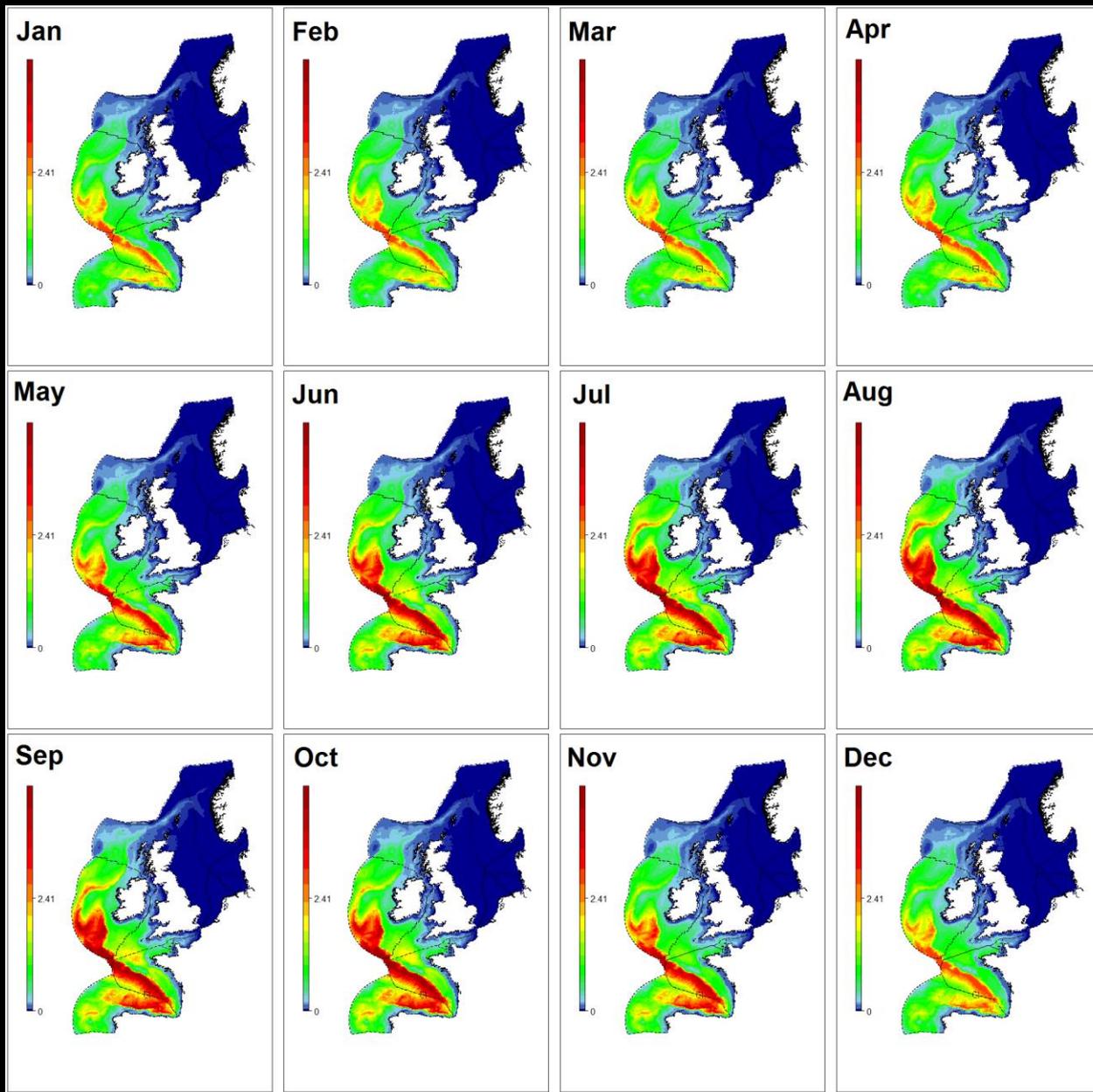


- Long term trends in abundance? Only 2 estimates for common dolphin in comparable areas



- 2005/2007: 174,000 (CV = 0.27)
- 2016: 468,000 (CV = 0.26)
- Significant increase





# Implications for ASCOBANS

- Robust estimates of populations but...
- Lacking trends in the Agreement area as a whole
  - Offshore waters west of Portugal not surveyed
- Harbour porpoise conservation plans:
  - North Sea – population stable
  - Inner Danish Waters – population stable
  - Iberian peninsula?
  - Norway?

# Implications for ASCOBANS

- White beaked dolphin – no evidence of change
- Common dolphin?
  - Bycatch rates high in some fisheries/areas
  - Increases also driven by abundance
  - Conservation plan in progress
- Parties continue to advocate large-scale surveys

# Acknowledgements

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