

SYNERGIES BETWEEN ASCOBANS AND THE TRILATERAL WADDEN SEA COOPERATION – HARBOUR PORPOISE –

Jenny Renell¹, Kristine Meise², Sara Kophamel³

¹ASCOBANS Secretariat (Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas) jenny.renell@un.org [presenter]

²Common Wadden Sea Secretariat meise@waddensea-secretariat.org

³CMS Secretariat (Convention on the Conservation of Migratory Species of Wild Animals) sara.kophamel@cms.int

HARBOUR PORPOISE (*PHOCOENA PHOCOENA*)

- Smallest cetacean in Europe (adults: 1,5 m length).
- Sexual maturity at 3-5 years and potentially one calf every year – but lower pregnancy rates in the North Sea region.
- Mostly solitary, though aggregations may occur in areas with concentrations of energy-rich prey.
- Vulnerable to anthropogenic disturbance. Regarded as sentinel species.
- Listed as threatened or endangered in several international conservation instruments (e.g., EC Habitats Directive 92/43/EEC, CITES, Bern Convention, and CMS).
- High conservation priority in the EU.
- A declining population trend recorded in the core breeding area of the Island of Sylt (World Heritage Site) (Nachtsheim et al., 2021).

HARBOUR PORPOISES IN THE WADDEN SEA

- Geomorphology and ecological characteristics of the Wadden Sea seem to attract harbour porpoises (food availability?)
- Anthropogenic pressures are impacting harbour porpoises in the North Sea. In the Wadden Sea, the species is vulnerable to chemical pollution, acoustic pollution and bycatch.
 - Monitoring of pollutant levels is urgently needed, as industrial pollution of rivers is still high (Karlsson et al., 2020; Li et al., 2022).
 - Underwater noise includes military activities and piling.
 - Bycatch in the Wadden Sea usually occurs due to the use of static nets and demersal trawling.

The impact of anthropogenic threats can only be quantified with a powerful monitoring system in place.

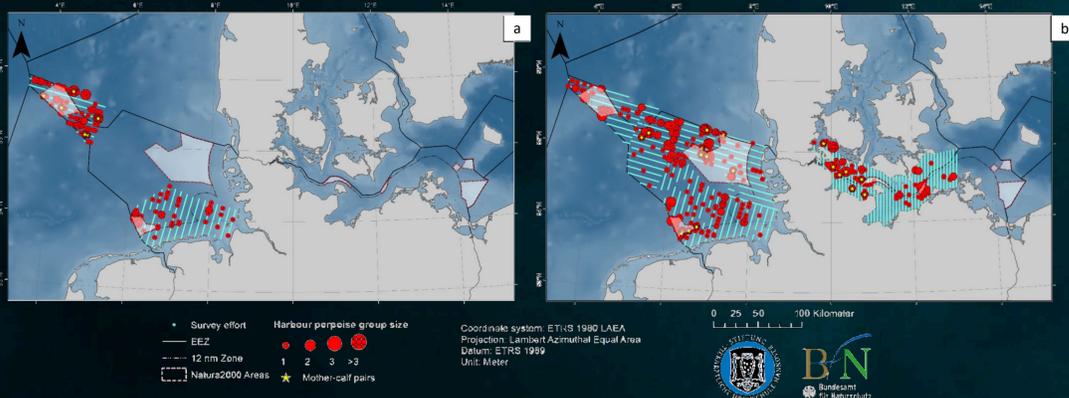


Figure 1. Survey effort and harbour porpoise sightings during aerial surveys in the German North and Baltic Sea during a) spring 2019 and b) summer 2019. Harbour porpoise group sizes are indicated using group size dependent red circles; yellow stars mark mother-calf pairs; blue lines indicate covered transect lines (i.e. survey effort). Sourced from ICES Working Group on Marine Mammal Ecology (WGMMME) (2020).

ASCOBANS

- United Nations treaty, concluded under CMS in 1992.
- 10 Parties and 7 non-Party Range States.
- ASCOBANS Secretariat coordinates, facilitates and supports Parties in implementation of the Agreement.
- The Conservation Plan for Harbour Porpoises in the North Sea was adopted in 2009.

TRILATERAL WADDEN SEA COOPERATION (TWSC)

- Joint Declaration on the Protection of the Wadden Sea.
- Established in 1982 by Denmark, Germany and the Netherlands.
- The Common Wadden Sea Secretariat (CWSS) supports, facilitates and coordinates the TWSC.



COLLABORATIVE EFFORTS

- ASCOBANS Advisory Committee suggested stronger collaboration on harbour porpoise conservation between ASCOBANS and TWSC → Leeuwarden Declaration (2018).
- The scientific symposium “Bright Future? Harbour Porpoises in the Wadden Sea” (2019) aimed to collect and evaluate information on the specific ecological role of the species.
- TWSC recognised the harbour porpoise as an integral species of the Wadden Sea ecosystem → species included in the TWSC Expert Group on Seals (now “Marine Mammal Expert Group”).

- Overlap in membership of ASCOBANS North Sea Group and TWSC Marine Mammal Expert Group facilitates information sharing.
- This poster explores potential synergies between ASCOBANS and TWSC regarding work on the conservation of the harbour porpoise.

Parties to ASCOBANS and TWSC have agreed to improve bycatch monitoring, and to take further research and conservation measures.

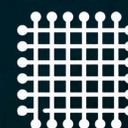
POSSIBLE FUTURE DIRECTIONS

Trilateral stranding network



- Establish a cross-border stranding network by combining existing networks in DK, DE, and NL.
- Harmonise data collection and sampling methods.

Bycatch monitoring



Improve efforts to monitor and analyse bycatch data at a regional scale.

Post-mortem examinations



- Standardise post-mortem examinations.
- Collect biological baseline data and data on mortality causes, chemical and acoustic pollution, and infectious diseases.

Acoustic pollution



- Study the impact of noise on harbour porpoise distribution.
- Study the use of passive acoustic monitoring technology.

Outreach and education



Educate the public about the uniqueness of the Wadden Sea, about its role as habitat for harbour porpoises, and the threats they are facing.

Porpoise detectors (PODs)



- Determine with monitoring efforts on the Wadden Sea.
- Potential use of resulting data for outreach and education purposes.

EFFECTIVE CONSERVATION REQUIRES ACTION

References and further reading

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Bonn, Germany
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