

# ASCOBANS Jastarnia Group 20

IMPLEMENTATION REVIEW

---

- GERMANY -

ASCOBANS JG-20; 13.-15.04.2024; ZANDVOORT



# 1. Increase involvement, awareness and cooperation

## **NEW:**

---

### ➤ **Sea Rangers**

- Specialist in "Fisheries and marine environment"
- Additional 1 year training/apprenticeship for fishermen (Pilot Project)
- Tasks: (next to fishing), environmental protection, conservation of marine fish stocks, aquaculture management, tourism services and preservation of the cultural heritage of coastal fishing.

#### Content of training/Apprenticeship

- Legal basis (principles of nature conservation law in BS, existing protected areas, their conservation objectives and management)
- Marine biology basis ( in-depth understanding of the ecosystem, basis for communication with authorities/research/interested public)
- Basics of environmental monitoring
- Production of marine organisms
- Communication and public relations/awareness
- Changes in the marine environment -current developments in marine habitats

# 1. Increase involvement, awareness and cooperation

---

## Ongoing:

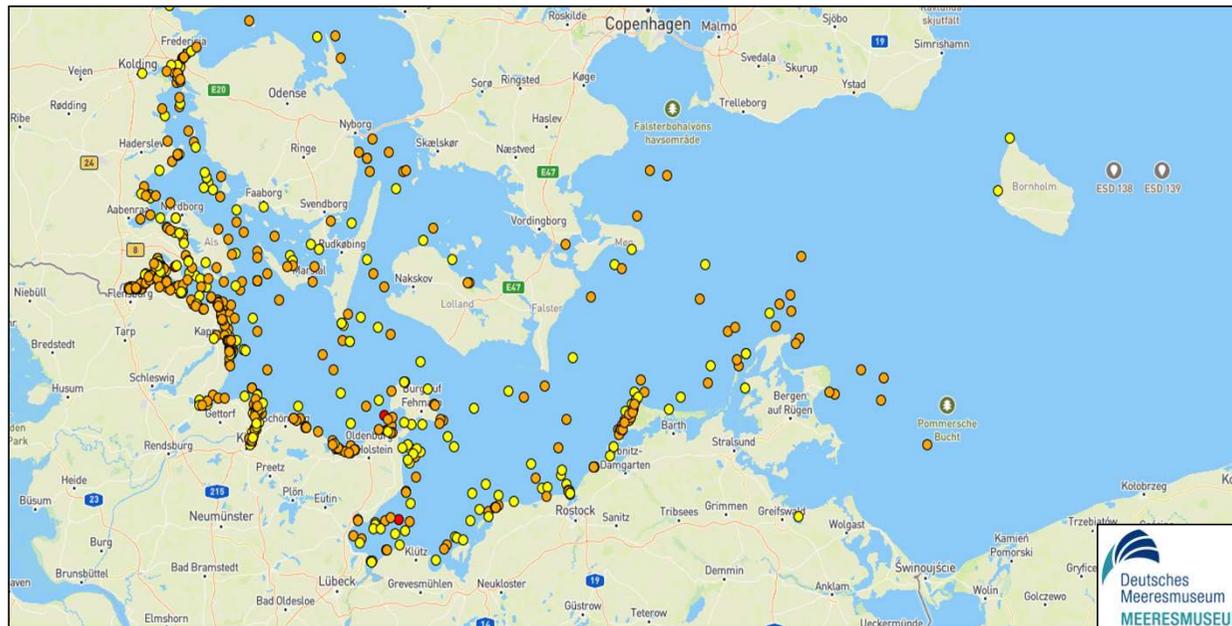
- Cooperation and dialogue fora within different projects (Stella 2 / Pal-CE)
- “voluntary agreement” for the conservation of harbour porpoises and sea ducks in the Baltic Sea by fishermen (extended in Oct. 2022 till Dez. 2026)
- Baltic Harbour Porpoise Day
  - Public Event at the German Oceanographic Museum
- Incidental Sightings Programs
  - App
  - Map

# 1. Increase involvement, awareness and cooperation

## Cetacean Sightings Programm

App: OstSeeTiere

<https://www.deutsches-meeresmuseum.de/en/science-research/news/map-of-sightings>



HP: 716  
Do: 21  
Mw: 2  
Hw: 1

## 2. Monitor and estimate abundance and distribution

---

### Ongoing:

#### ➤ National monitoring program

- ✓ Aerial Surveys: Summer 2023
- ✓ Acoustic Monitoring: all year

#### ➤ **HABITATWal** – Habitat choice and population dynamics of harbour porpoises in the ecosystem in the German North and Baltic Sea (2022 - 2026; TiHo-ITAW, funding BfN)

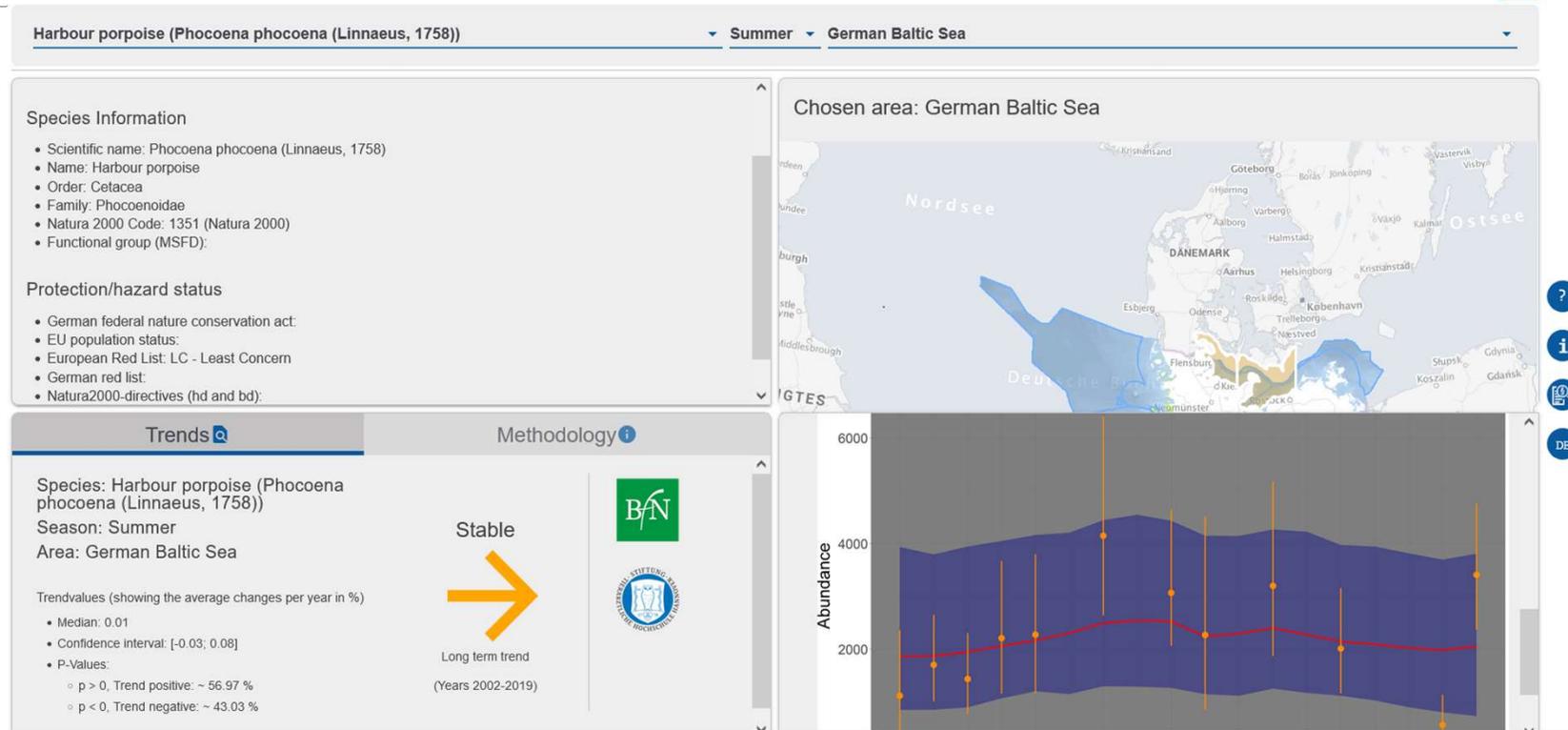
- Habitat selection of harbour porpoises in the North Sea and Baltic Sea, with focus on possible causes of decline
- Influence of anthropogenic disturbance factors on the population dynamics of hp
- Visual surveys of marine mammals in the German North Sea and Baltic Sea
- Concept for further development of marine mammal monitoring

#### ➤ **HaMoNa** (DMM funded by BfN 2022 – 2025)

- Development of novel methods to acoustically determine the group size of harbour porpoises and the presence of calves
- Complement long-term acoustic data series

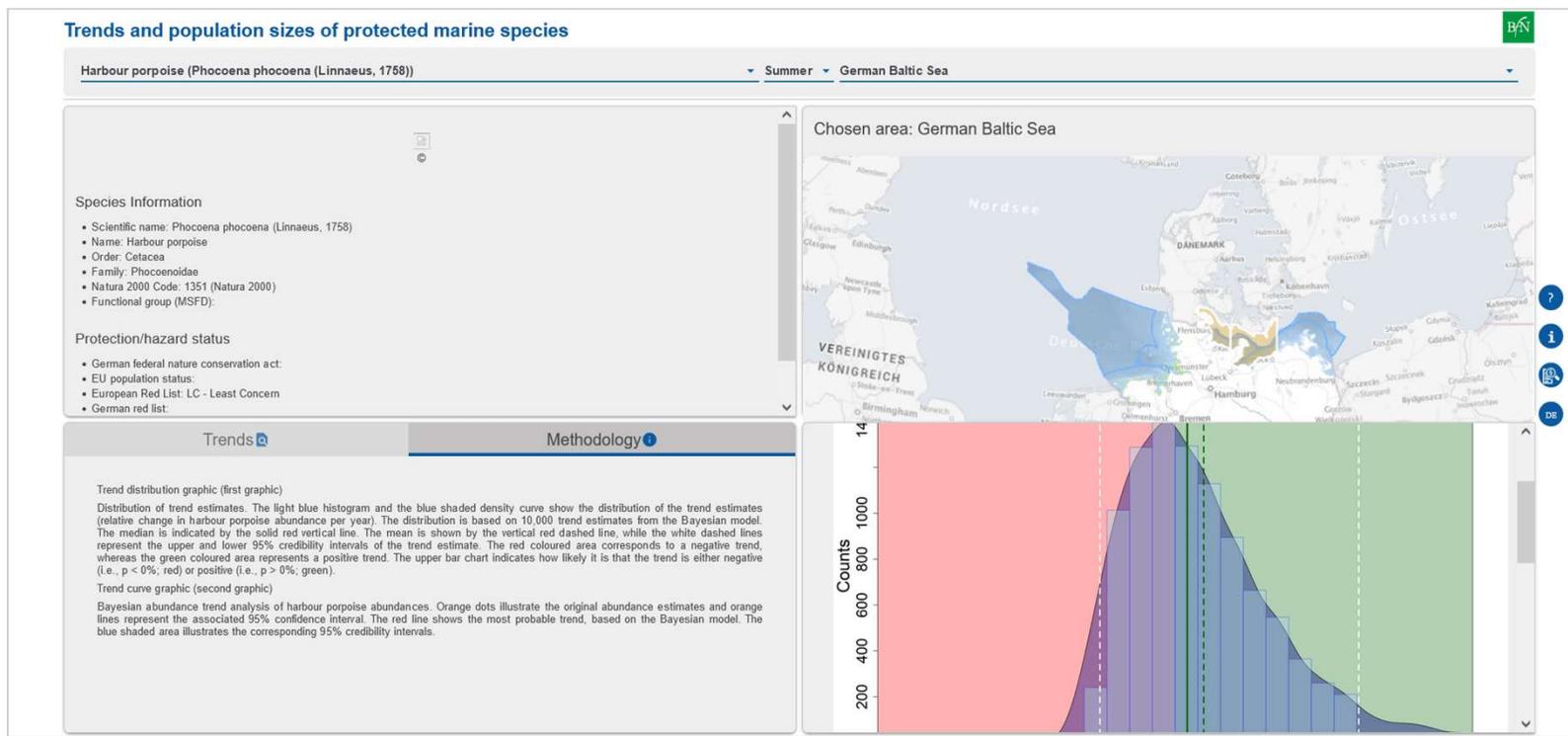
## 2. Monitor and estimate abundance and distribution

### Trends and population sizes of protected marine species



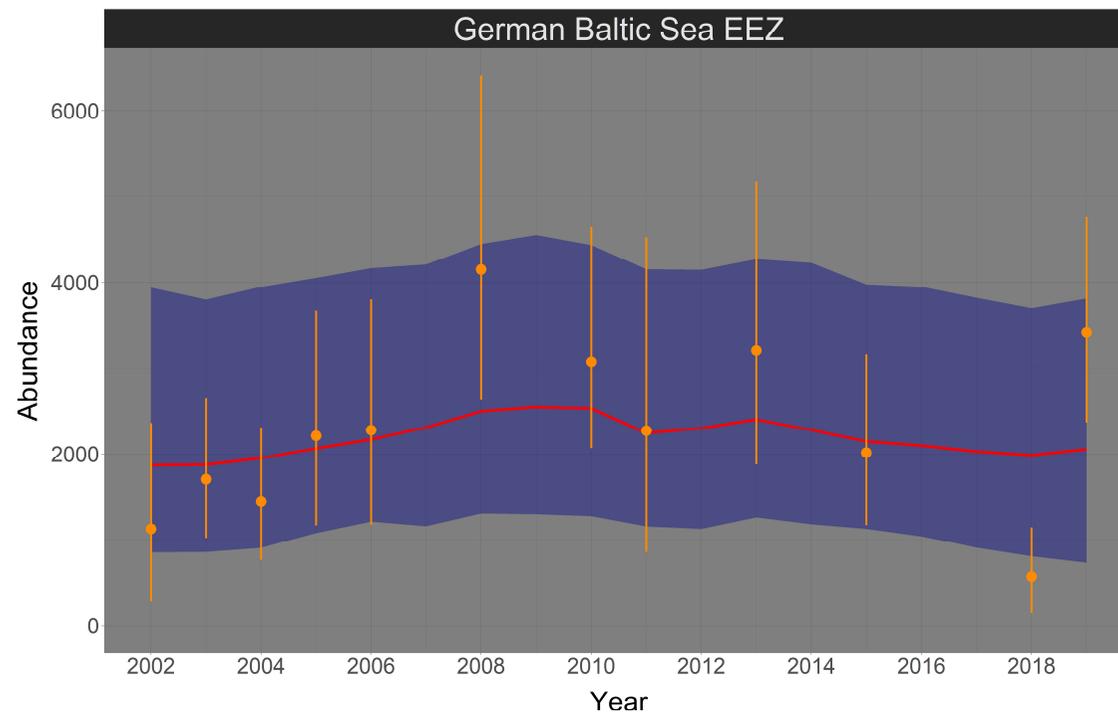
<https://geodienste.bfn.de/seevoegeltrends?lang=en>

## 2. Monitor and estimate abundance and distribution



<https://geodienste.bfn.de/seevoegeltrends?lang=en>

## 2. Monitor and estimate abundance and distribution



<https://geodienste.bfn.de/seevogeltrends?lang=en>

## 2. Monitor and estimate abundance and distribution

---

### Trend Analyses

#### Publication:

Owen K, Gilles A, Authier M, Carlström J, Genu M, Kyhn LA, Nachtsheim DA, Ramírez-Martínez NC, Siebert U, Sköld M, Teilmann J, Unger B and Sveegaard S (2024) A negative trend in abundance and an exceeded mortality limit call for conservation action for the Vulnerable Belt Sea harbour porpoise population. *Frontiers in Marine Science* 11:1289808. <https://doi.org/10.3389/fmars.2024.1289808>

## 3. Monitor, estimate and reduce bycatch

---

### Ongoing Projects:

**1. Project “STELLA 2”:**

See presentation at Joint Session

**2. Project “PAL-CE”:**

See presentation at Joint Session

**3. „voluntary agreement“ for the conservation of harbour porpoises and sea ducks in the Baltic Sea (since 2013): seasonal reduction of gillnet length**

## 4. Monitor and mitigate impact of underwater noise

---

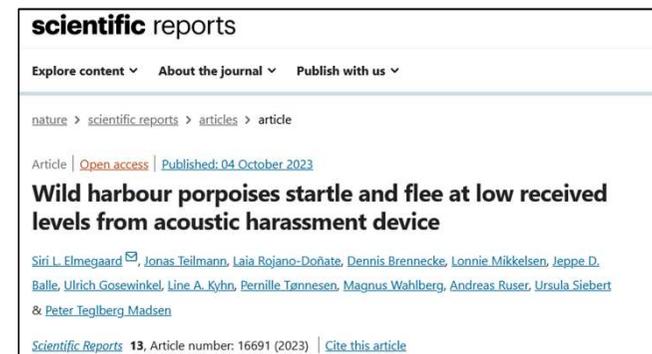
- **NAVESS:** (Naturverträgliche Sprengungen auf See) Environmentally compatible blastings at sea (2023 – 2024) (ITAP/Bioconsult SH funded by BfN)
  - scientific data basis to assess impact of unavoidable blast noise from a nature conservation perspective (analyze of national and international data)
  - measurements to evaluate the mitigation effect of different bubble curtain configurations and the efficiency of deterrence and mitigation measures.
  - Takes place during two blasting campaigns of the German Armed Forces.
- **Noise Mitigation:** Noise Limits during offshore constructions (see presentation joint session)
- **Guidelines** for the legal and technical nature conservation requirements for the clearance of explosive ordnance in the German North Sea and Baltic Sea (in process)
- **Workshop:** BfN Expert Workshop Management of underwater radiated noise in relation to nature conservation (2-5 May 2023)

## 4. Monitor and mitigate impact of underwater noise

**UWE-2: Project (ongoing):** Underwater noise effects on harbour porpoises - detection by DTAGs (Sept. 2021 – Aug. 2024) (ITAW / Aarhus University funded by BfN)

Publication:

Elmegaard, S. L., Teilmann, J., Rojano-Doñate, L., Brennecke, D., Mikkelsen, L., Balle, J. D., Gosewinkel, U., Kyhn, L. A., Tønnesen, P., Wahlberg, M., Ruser, A., Siebert, U., & Madsen, P. T. (2023). **Wild harbour porpoises startle and flee at low received levels from acoustic harassment device**. *Scientific Reports*, 13. <https://doi.org/10.1038/s41598-023-43453-8>



## 5. Monitor and assess population health status

---

### Ongoing:

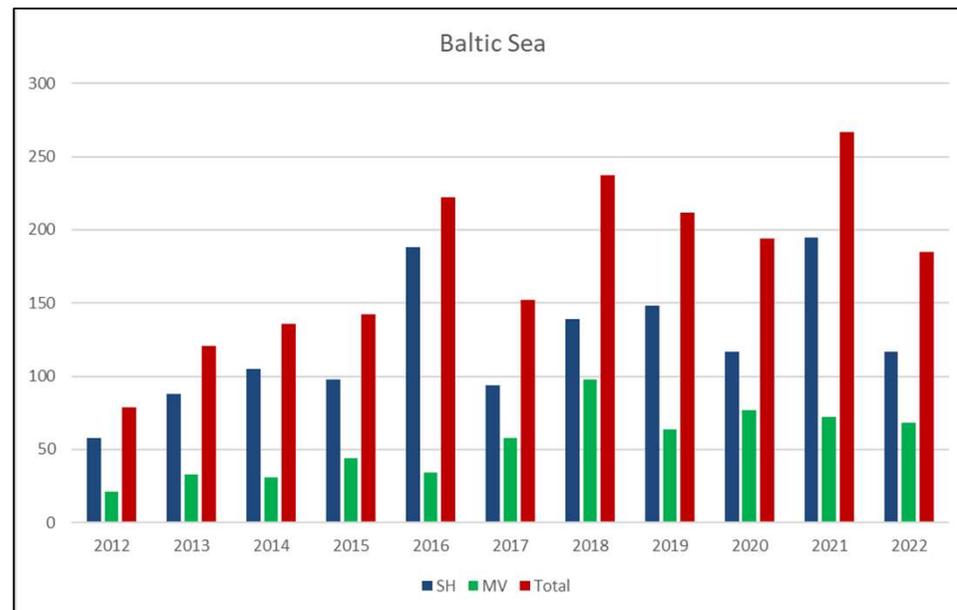
- Investigation of the health, nutritional status and diet of harbour porpoises in the framework of the stranding network
- Development of a monitoring and assessment concept for the pollution load of marine mammals of the North Sea and Baltic Sea for the implementation of the MSFD (01.10.2021 - 31.03.2024) (ITAW, UFZ)
- **CREATE**: Development of indicator pathogens in marine mammals to advance assessment of anthropogenic impacts (Dec. 2021 – Nov. 2024) (ITAW + Consortium) *2<sup>nd</sup> phase planned*
- HaMoNa: Conduction of digestion experiments to analyze the role of harbour porpoises in the ecosystem and especially in food webs (DMM funded by BfN 2022 – 2025)

## 5. Monitor and assess population health status

### Stranding Networks established

Schleswig-Holstein (SH): ITAW

Mecklenburg Vorpommern (MV): DMM



**2022**

SH: 117

MV: 68

Total: 185

Sources: ITAW/DMM

## 5. Monitor and assess population health status

### Stock structure of harbour porpoises in the region

---

#### Ongoing:

**BALTICSNPS:** Development and application of a genetic SNP rapid test for population assignment of harbour porpoises from the Baltic Sea (Uni of Potsdam, funded by BfN) (Prof. R. Tiedemann, E. Celemín (2022 - 2024)

➤ See Presentation

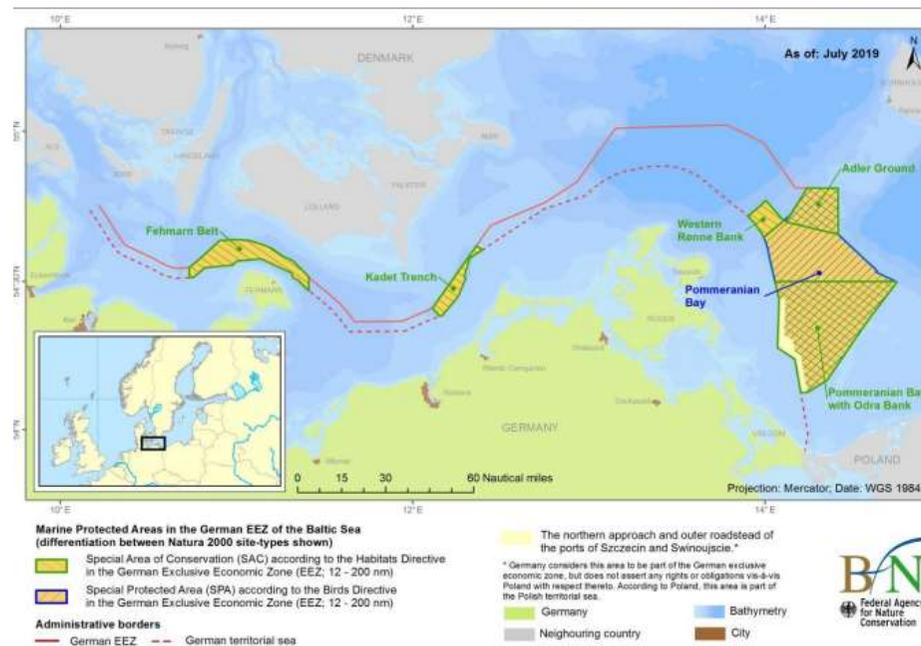
#### Publications:

Celemín E, et al. (2023): **Evolutionary history and seascape genomics of Harbour porpoises (*Phocoena phocoena*) across environmental gradients in the North Atlantic and adjacent waters.** *Molecular Ecology Resources*, in press. DOI: <https://doi.org/10.1111/1755-0998.13860>

Autenrieth M, et al. (2023): **Genome-wide analysis of the harbour porpoise (*Phocoena phocoena*) indicates isolation-by-distance across the North Atlantic and potential local adaptation in adjacent waters.** *Conservation Genetics*, in press. DOI: <https://doi.org/10.1007/s10592-023-01589-0>

## 6. Investigate habitat use and protect important areas

- Management plans for Natura 2000 sites in the German EEZ entered into force February 2022
- Fishery regulations in process



## 6. Investigate habitat use and protect important areas

### Proposed management measures for static net fisheries in the German Baltic EEZ Proposal nature conservation



Table of Content	
Zusammenfassung .....	4
Abstract .....	6
<b>1 Introduction .....</b>	<b>9</b>
1.1 Background and scope of the document .....	9
1.2 Policy framework .....	11
1.3 State of play .....	13
<b>2 Nature Conservation in the German Baltic EEZ .....</b>	<b>16</b>
2.1 Protected species and habitats in the German Baltic EEZ .....	16
2.2 Conservation objectives of Natura 2000 sites in the German Baltic EEZ .....	21
<b>3 Main conflicts between static net fisheries and nature conservation objectives. 23</b>	<b>23</b>
3.1 Static net fisheries in the German Baltic.....	23
3.2 Fisheries' impacts within Natura 2000 and surrounding areas .....	25
3.3 Other human pressures .....	30
<b>4 Management and mitigation measures .....</b>	<b>31</b>
4.1 Towards an ecosystem-based approach to fisheries management .....	31
4.2 Proposed fisheries management measures inside Natura 2000 sites.....	34
4.3 Proposed management measures outside Natura 2000 sites.....	37
4.4 Proposed accompanying research activities.....	38
<b>5 Monitoring, control and enforcement .....</b>	<b>40</b>
<b>6 Roadmap for implementation of management measures .....</b>	<b>43</b>
<b>7 Outlook .....</b>	<b>44</b>
References.....	45
List of figures .....	50
List of tables .....	51
List of abbreviations .....	52
<b>A Annex.....</b>	<b>54</b>

## 6. Investigate habitat use and protect important areas

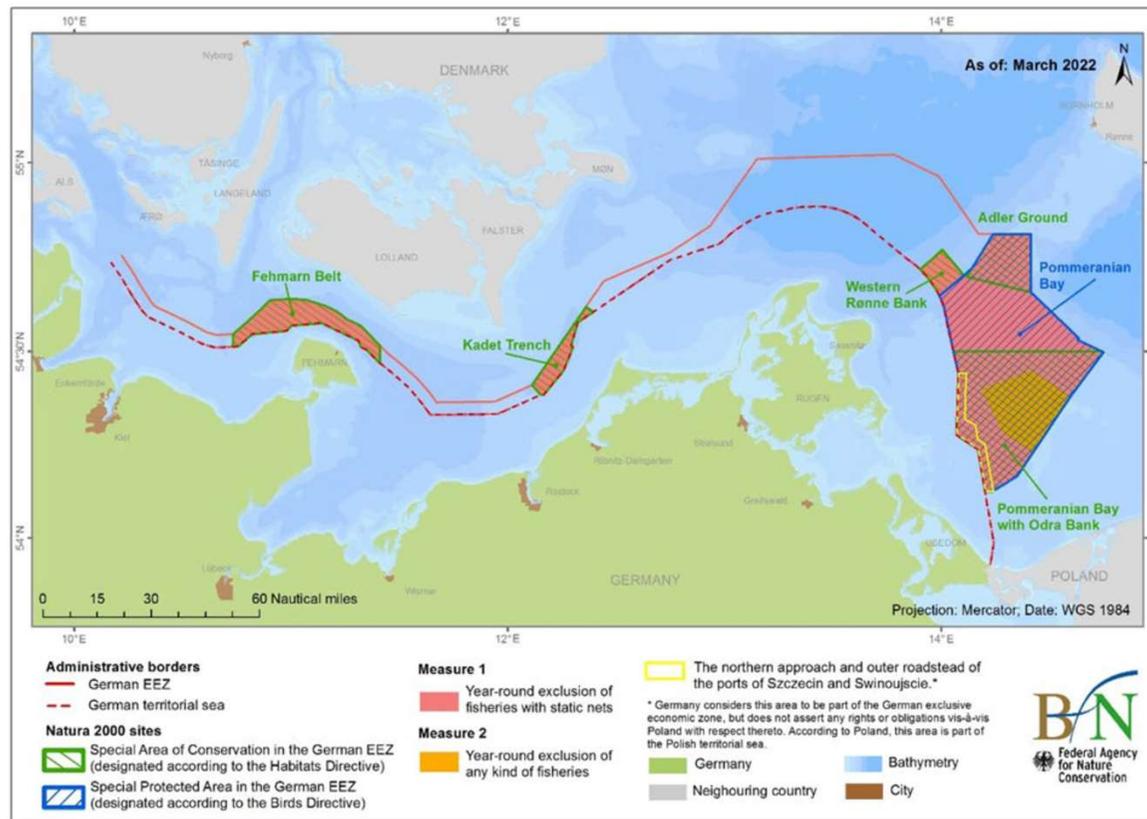
### Proposed Management Measures

Natura 2000 site	Existing and previously proposed measures	Proposed measures for static net fisheries	Rationale of proposed measures
Fehmarn Belt SAC	Existing: n/a Proposed: No fishing with mobile, bottom-contacting gear in a management zone	<b>M1</b> – Year-round exclusion of all static net fisheries	Protection of HP. Year-round occurrence of HP* (Belt Sea population)
Kadet Trench SAC	Existing: n/a Proposed: No fishing with mobile, bottom-contacting gear in a management zone	<b>M1</b> – Year-round exclusion of all static net fisheries	Protection of HP. Year-round occurrence of HP (Belt Sea population)
Western Rønne Bank SAC	Existing: Exclusion of static nets from Nov – Jan. Proposed: No fishing with mobile, bottom-contacting gear	<b>M1</b> – Year-round exclusion of all static net fisheries	Protection of HP. Year-round occurrence of HP ( <b>winter</b> : Baltic Proper population, <b>summer</b> : Belt Sea population)
Adler Ground SAC	Existing: Exclusion of static nets from Nov – Jan. Proposed: No fishing with mobile, bottom-contacting gear	<b>M1</b> – Year-round exclusion of all static net fisheries	Protection of HP. Year-round occurrence of HP ( <b>winter</b> : Baltic Proper population, <b>summer</b> : Belt Sea population)
Pomeranian Bay with Odra Bank SAC	Existing: Prohibition of active gear in parts of the Odra Bank; Exclusion of static nets from Nov – Jan. Proposed: No fishing with mobile bottom-contacting gear on Odra Bank.	<b>M1</b> – Year-round exclusion of all static net fisheries, <b>M2</b> – No take zone on Odra Bank – expand ban of active gear to all types of fishing gear	Protection of HP. Year-round occurrence of HP ( <b>winter</b> : Baltic Proper population, <b>summer</b> : Belt Sea population). Recovery of habitats and food webs.
Pomeranian Bay SPA	Existing: Prohibition of active gear in parts of the Odra Bank; Exclusion of static nets from Nov – Jan. Proposed: No fishing with mobile bottom-contacting gear on Odra Bank.	<b>M1</b> – Year-round exclusion of all static net fisheries, <b>M2</b> – No take zone on Odra Bank – expand ban of active gear to all types of fishing gear	Protection of sea birds. Winter (resting, feeding) and summer (moulting). Recovery of habitats and food webs.

Source: Müller et al. 2024

## 6. Investigate habitat use and protect important areas

Proposed management measures for static net fisheries in the German Baltic EEZ  
 Proposal nature conservation



Source: Müller et al. 2024

## 6. Investigate habitat use and protect important areas

Proposed management measures for static net fisheries in the German Baltic EEZ  
Proposal nature conservation

### Proposed management measures outside Natura 2000 sites

1. Interim mandatory use of Acoustic Deterrent Devices (ADDs) on static nets in all areas outside Natura 2000 sites for a maximum of 5 years
  - ADD use to be accompanied by further research and effective monitoring scheme.

### Proposed accompanying research activities:

1. Alternative gear and gear modifications
2. Systematic review of the effect and effectiveness of Acoustic Deterrent Devices (Pingers and PALs)
3. Research on willingness of fishers to shift to alternative and/or modified gear and the role of incentives

Source: Müller et al. 2024

## 6. Investigate habitat use and protect important areas

Proposed management measures for static net fisheries in the German Baltic EEZ  
Proposal nature conservation

---

### Monitoring, control and enforcement

1. Reporting of fine-scale spatiotemporal fishing effort information for all static net vessels, including vessels <12 m AND Monitoring the response of the fishery to the implementation of the suggested measures
2. Introduction of Remote Electronic Monitoring (REM) systems on a representative number of vessels to record bycatch
3. Marine mammal observers' system to record bycatch
4. Monitoring of the effectiveness the measures
5. Long-term acoustic monitoring of harbour porpoise in the Pomeranian Bay
6. Control of the continuous use and functionality of Acoustic Deterrence Devices
7. Necropsy and sampling of stranded and bycaught harbour porpoises

Source: Müller et al. 2024

## Publications

---

Müller, M., et al. (2024): "Management measures for static net fisheries in the German Baltic Exclusive Economic Zone." BfN Schriften 663

<https://doi.org/10.19217/skr663>

<https://www.bfn.de/publikationen/bfn-schriften/bfn-schriften-663-management-measures-static-net-fisheries-german>

Celemín E, et. al. (2023) Evolutionary history and seascape genomics of Harbour porpoises (*Phocoena phocoena*) across environmental gradients in the North Atlantic and adjacent waters. *Molecular Ecology Resources*, in press. DOI: <https://doi.org/10.1111/1755-0998.13860>

Autenrieth M, et al. (2023): Genome-wide analysis of the harbour porpoise (*Phocoena phocoena*) indicates isolation-by-distance across the North Atlantic and potential local adaptation in adjacent waters. *Conservation Genetics*, in press. DOI: <https://doi.org/10.1007/s10592-023-01589-0>

Elmegaard, S. L. et al. (2023). Wild harbour porpoises startle and flee at low received levels from acoustic harassment device. *Scientific Reports*, 13. <https://doi.org/10.1038/s41598-023-43453-8>