

# ASCOBANS NORTH SEA STEERING GROUP 10

Implementation Review  
- Germany -

## 2.4. REVIEW OF CURRENT PINGERS, DEVELOPMENT OF ALTERNATIVE PINGERS AND GEAR MODIFICATIONS

### 1. Project “STELLA 2”:

*Development and testing of fishing techniques to minimize the conflicts between gillnet fishery and marine nature conservation in the German Baltic Sea EEZ, with focus on mitigation of by-catches of marine mammals and seabirds. (Nov. 2021 – Oct. 2024)*

▶ 2 parts:

- ▶ **main project:** further development of approaches from STELLA 1 pearl-gillnet, fish pots and pontoon trap.
- ▶ **accompanying scientific study:** assessment of the (further) developed fishing gears on the behaviour and capture of target species and on by-catch reduction of marine mammals and diving seabirds.

## **Stella 2:**

**WP 1:** *further development of the gillnet modification ('pearl net'), developing and evaluation of methods for producing the pearl nets, test of behaviour of the modified nets under water.*

**WP 2:** *further development and testing of fish pots*

**WP 3:** *further development and testing of the pontoon-trap*

**WP 4:** *“Communication WP” (fishers, researchers, other stakeholders) during the development and testing work.*

- *Workshop: "Technical and operational best practice in bycatch mitigation"*
- *Workshop on the topic "Marketing incentives for gear switching"*
- *Implementation of a dialogue forum*

## 2.4. REVIEW OF CURRENT PINGERS, DEVELOPMENT OF ALTERNATIVE PINGERS AND GEAR MODIFICATIONS

### 2. Monitoring of PALs

- ▶ Project: „**PAL use in German waters - Current efficiency and mode of operation**“ **PAL-CE** (Cooperation: DMM, TI, Aarhus University, Swedish Museum of Natural History, OIC; funding by BfN) (Dec. 2021 – Nov. 2024)
- ▶ **Work packages:**
- ▶ WP1: Effectiveness of PALs in previously exposed and naive harbour porpoises (BACI)
- ▶ WP2: Comparison of echolocation rates around nets in Schleswig-Holstein and Denmark
- ▶ WP3: Echolocation click variations between porpoise populations
- ▶ WP4: Current use of PAL in fisheries
- ▶ WP5: Stakeholder process, knowledge transfer and public relations

## 2.5. FINALIZE A MANAGEMENT PROCEDURE APPROACH FOR DETERMINING MAXIMUM ALLOWABLE BYCATCH LIMITS IN THE REGION

### ▶ **Publication:**

Genu M, Gilles A, Hammond PS, Macleod K, Paillé J, Paradinas I, Smout S, Winship AJ and Authier M (2021) Evaluating Strategies for Managing Anthropogenic Mortality on Marine Mammals: An R Implementation With the Package RLA. *Front. Mar. Sci.* 8:795953. doi: 10.3389/fmars.2021.795953

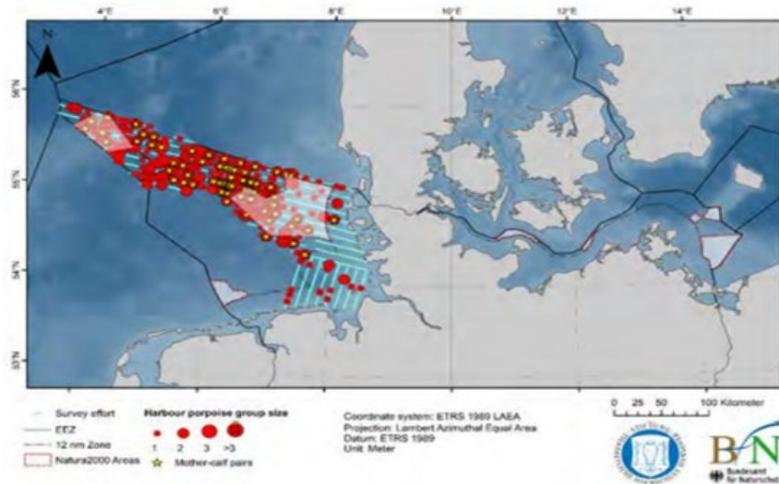
<https://www.frontiersin.org/articles/10.3389/fmars.2021.795953/full>

- ▶ Testing of the PBR and RLA control rules in a Management Strategy Evaluation (MSE) framework

# 3.1 MONITORING TRENDS IN DISTRIBUTION AND ABUNDANCE

## ► 2 Surveys in 2020 by ITAW/BfN

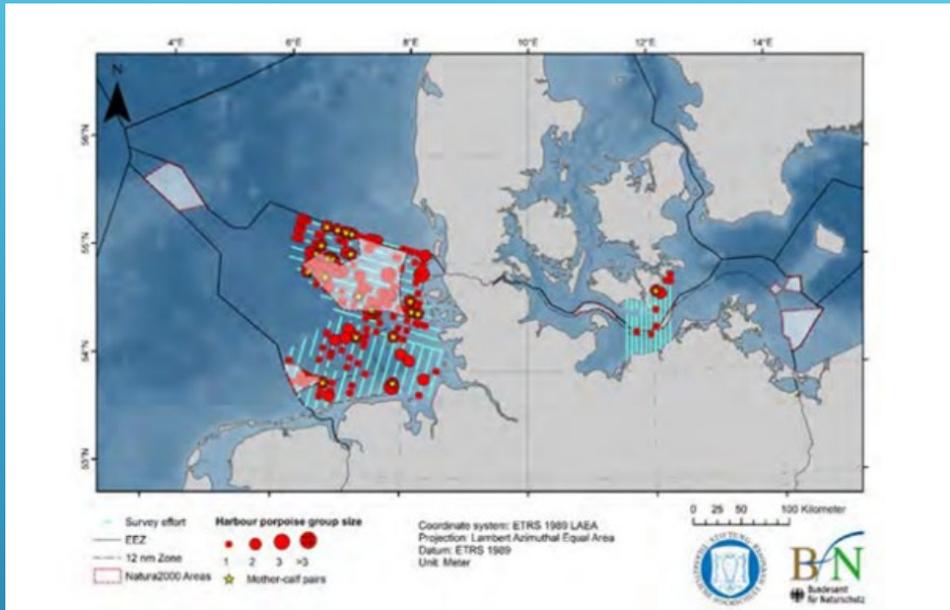
Spring:



Area Covered:  
Dogger Bank, Area B, Sylt  
Outer Reef West, Sylt Outer  
Reef East, Weser-Elbe estuary

Area	Season	N	$N_{95\% CI}$	D	$D_{95\% CI}$	$\hat{\rho}$
Dogger Bank (A)	spring 2020	11 425	8011–16 093	2.02	1.42–2.85	1.25
(B)	spring 2020	9209	6149–13 075	2.33	1.56–3.31	1.40
Sylt Outer Reef West (C)	spring 2020	18 677	12 139–27 808	3.12	2.03–4.64	1.34
Sylt Outer Reef East (D)	spring 2020	3318	1819–5111	0.48	0.26–0.74	1.31
Weser-Elbe estuary (E)	spring 2020	1925	916–3298	0.44	0.21–0.75	1.10
<b>North Sea Areas:</b>	spring 2020	<b>44 554</b>	33 189–59 552	1.66	1.24–2.22	1.31

# Summer 2020:



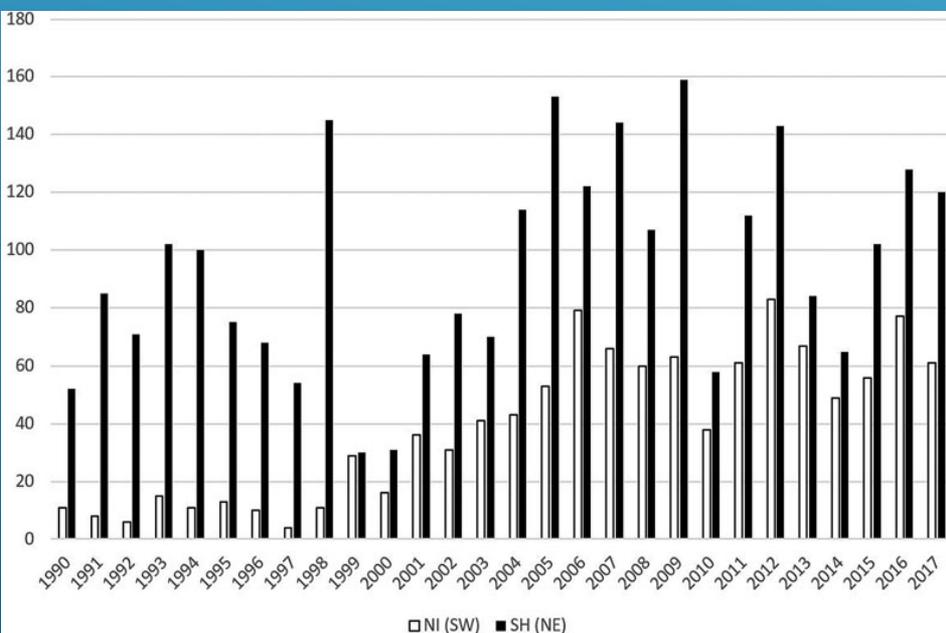
Area covered:  
 Sylt Outer Reef West, Sylt Outer Reef East, Weser-Elbe estuary, Borkum Reef Ground

Sylt Outer Reef West (C)	summer 2020	9929	6249–14 850	1.66	1.04–2.48	1.29
Sylt Outer Reef East (D)	summer 2020	9991	5806–15 550	1.45	0.84–2.25	1.30
Weser-Elbe estuary (E)	summer 2020	1467	279–3785	0.34	0.06–0.86	1.60
Borkum Reef Ground (F)	summer 2020	4092	2657–5914	0.67	0.44–0.97	1.28
<b>North Sea Areas:</b>	summer 2020	<b>25 480</b>	<b>17 855–35 986</b>	<b>1.09</b>	<b>0.76–1.54</b>	<b>1.31</b>

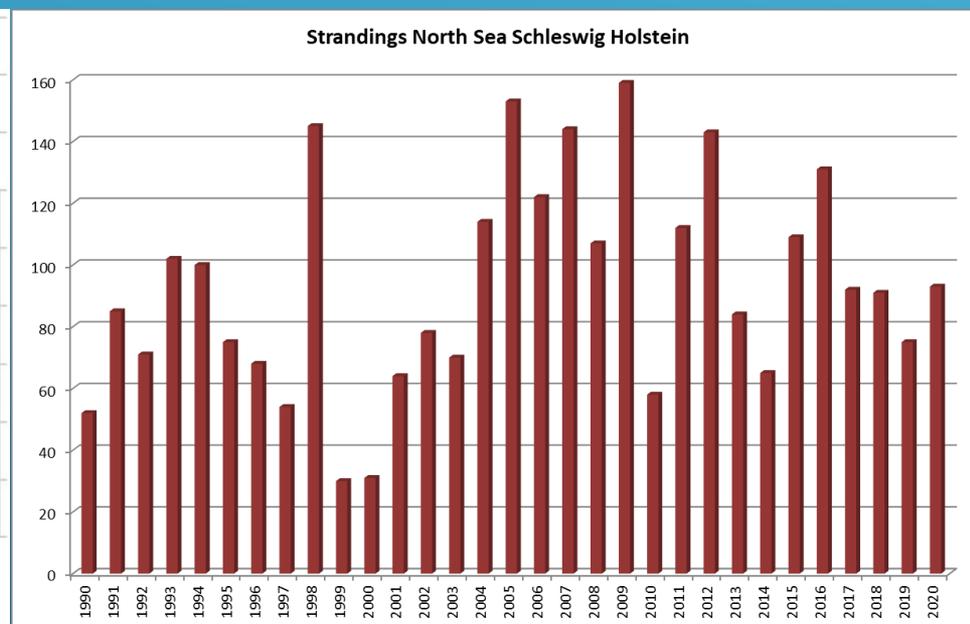
# 3.3 COLLECTION OF INCIDENTAL PORPOISE CATCH DATA THROUGH STRANDING NETWORKS

## Strandings Programmes: Established

- ▶ Schleswig-Holstein: ITAW (Lower Saxony: opportunistic)
- ▶ Publication: Christian Kinze, C., Czeck, R., Herr, H., & Siebert, U. (2021): Cetacean strandings along the German North Sea coastline 1604 - 2017 *Journal of the Marine Biological Association of the United Kingdom*, 101 (3), 483-502. doi:10.1017/S0025315421000503:



Source: Christian Kinze et al. 2021)



Source: ITAW)

## 3.4 INVESTIGATION OF THE HEALTH, NUTRITIONAL STATUS AND DIET OF HARBOUR PORPOISES

### Projects:

1. Investigation of the health, nutritional status and diet of harbour porpoises Assessment of by-batch and health of harbour porpoises (ITAW)
2. 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)
3. CREATE: Development of indicator pathogens in marine mammals to advance assessment of anthropogenic impacts (Dez. 2021 – Nov. 2024) (ITAW + Concoortium)

## 3.5. INVESTIGATION OF THE EFFECTS OF ANTHROPOGENIC SOUNDS ON HARBOUR PORPOISES

### ► **Project: Underwater noise effects-2 (UWE-2) (Sept. 2011 – Aug. 2014)**

ITAW / Aarhus University funded by BfN

- Investigations of thresholds of individual behavioural reactions of harbour porpoises and harbour seals and grey seals to vessel noise and other significant noise events
- Investigate additional energetic demands in porpoises due to vessel noise
- Recommendations for noise mitigation measures for harbour porpoises, harbour seals and grey seals for the North- and the Baltic Sea.
- Evaluation of noise mitigation measures for anthropogenic noise sources based on current knowledge

## 3.6. COLLECTION AND ARCHIVING OF DATA ON ANTHROPOGENIC ACTIVITIES AND DEVELOPMENT OF A GIS

➤ Marine Data Infrastructure <https://www.mdi-de.org/>

