The Work of the North Sea Harbour Porpoise Conservation Plan Steering Group

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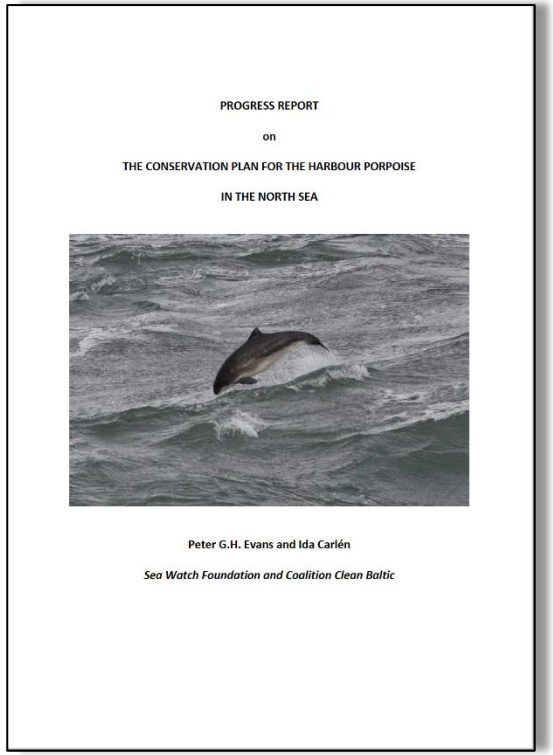
North Sea Group Meeting

- The 10th NSG Meeting was held online on 18th and 19th January 2022.
- It was attended by 26 persons from seven countries (BE, NL, DE, DK, SE, NO, UK) and representatives from EC, WWF, WDC, OceanCare, ASCOBANS Jastarnia Group, Common Wadden Sea Secretariat, Natural England, Seafish, and Sea Watch Foundation)
- A Progress Report was presented by the NSG Chair/Coordinator
- Twelve Action Points of High or Medium Priority were discussed
- Invited Presentations were made by Sonia Mendes on a UK example of noise management in porpoise MPAs; Lonneke IJsseldijk on the strandings research she had undertaken in the Netherlands and results of the international collaboration; Signe Sveegaard and Jip Vrooman on harbour porpoises in the Skagerrak & Wadden Sea; and Kristin Meise on porpoise conservation in the Wadden Sea World Heritage Site


PROGRESS REPORT

on

THE CONSERVATION PLAN FOR THE HARBOUR PORPOISE

IN THE NORTH SEA

Peter G.H. Evans and Ida Carlén

Sea Watch Foundation and Coalition Clean Baltic

North Sea Group Meeting

- Progress by each Party in implementing each of the priority actions in the conservation plan was reviewed and presented in the form of a table using a traffic light system (green, amber, red) representing good, moderate, and little progress
- The criteria for evaluating progress was revised and tightened up to make these clearer and more ambitious. There is still more work to be done to these, and they will be revisited at the next NSG meeting
- Proposals were made to review and update the conservation plan; a contract has been awarded and this will be undertaken over the coming months

List of Priority Actions

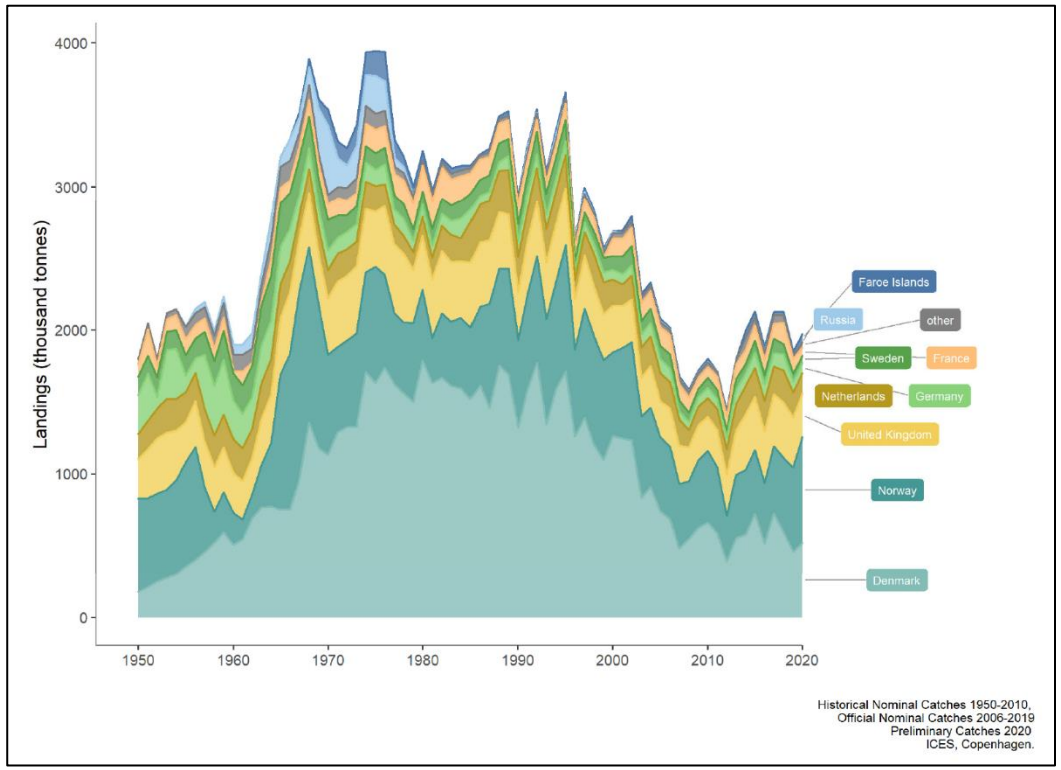
1. **Implementation of the Conservation Plan: Co-ordinator and Steering Committee – HIGH (ongoing)**
2. **Implementation of existing regulations on bycatch of cetaceans – HIGH (undertaken through EU Technical Regulations)**
3. **Establishment of Bycatch Observation Programmes on small vessel (<15m) and recreational fisheries – HIGH (I-VMS trialled in England but not fully deployed yet)**
4. **Regular evaluation of all relevant fisheries with respect to extent of porpoise bycatch – HIGH (ICES WGBYC)**
5. **Review of current pingers, development of alternative pingers and pinger modifications – HIGH (UK, DE, DK, NO)**
6. **Finalise a management procedure approach for determining maximum allowable anthropogenic removals in the region – HIGH (JBWG, OSPAR)**

List of Priority Actions (cont.)

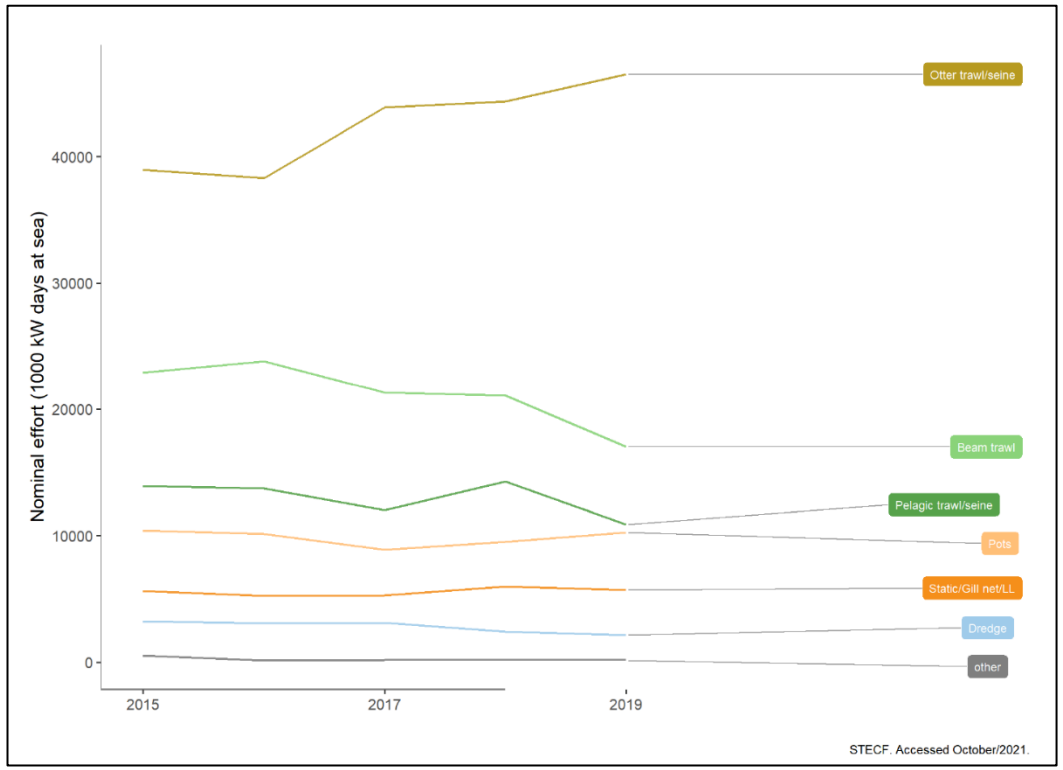
7. Monitoring trends in distribution and abundance of harbour porpoises in the region – HIGH (SCANS-IV in 2022; FR, BE, NL*, DE, DK) - *every 3 years)
8. Review of the stock structure of harbour porpoises in the region – HIGH (no new information since Fontaine et al., 2017; Ben Chehida et al., 2021)
9. Collection of incidental catch data through stranding networks in the region – MEDIUM (FR, BE, NL, DE, DK, UK)
10. Investigation of the health, nutritional status and diet of harbour porpoises in the region – MEDIUM (see IJsseldyk, 2021; Lambert 2021; Ramsijn et al. 2021)
11. Investigation of the effects of anthropogenic sounds on harbour porpoises – MEDIUM (ICES, BE, NL, DE, DK, UK)
12. Collection and archiving of data on anthropogenic activities and development of a North Sea-wide GIS based database – MEDIUM (ongoing)

Fisheries in the Greater North Sea

Landings by Country 1950-2020



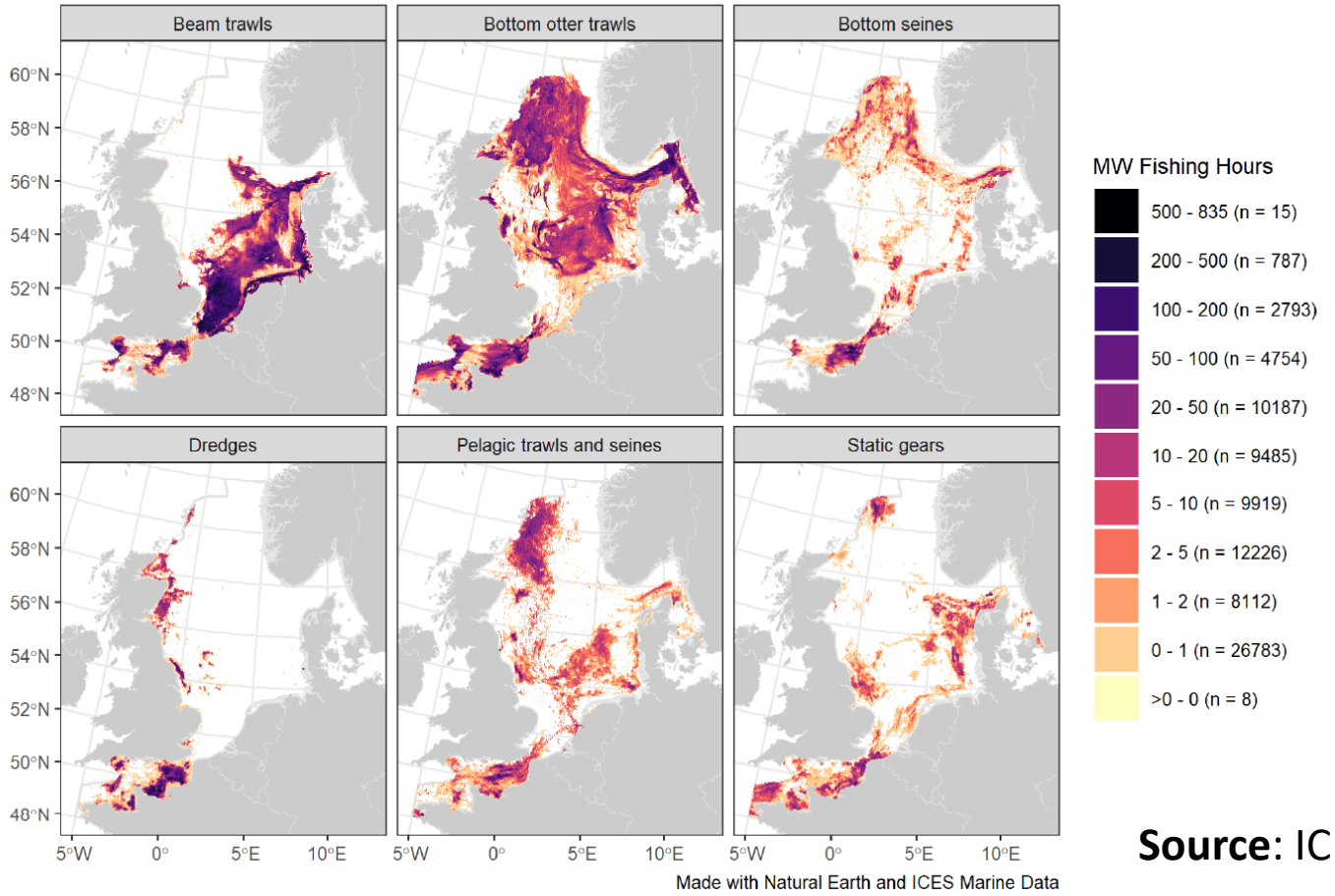
Fishing Effort by Gear Type 2014-2019



Source: ICES (2021)

Fisheries & Bycatch in the Greater North Sea

Spatial Distribution of Fishing Effort by Gear Type, 2017-2020



Estimates of Bycatch Rates

2017: 1,175-2,126 porpoises
(Source: ICES WGBYC, 2019)

2015-20: 5,929 (95% CI: 3,176-10,739) porpoises, all countries except Norway

1,627 (95% CI: 922-3,325) porpoises, all countries except Norway & Denmark

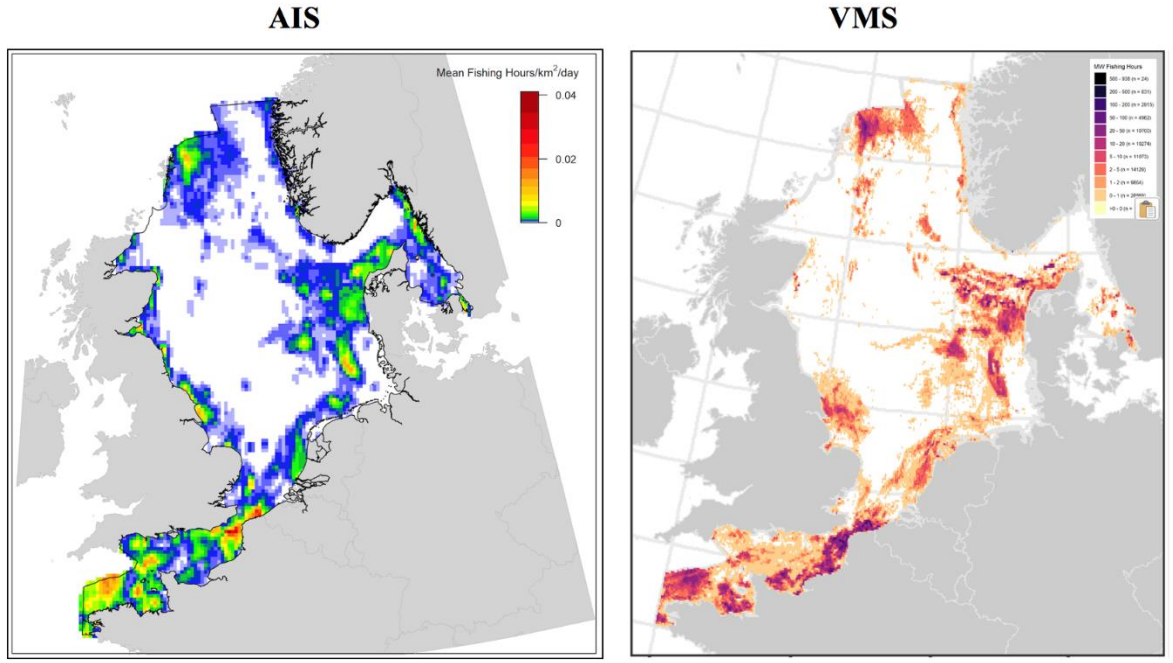
Majority of bycatch was in static gillnets (GNS, GND, GTR)

(Source: ICES WKMOMA, 2021)

Source: ICES (2021)

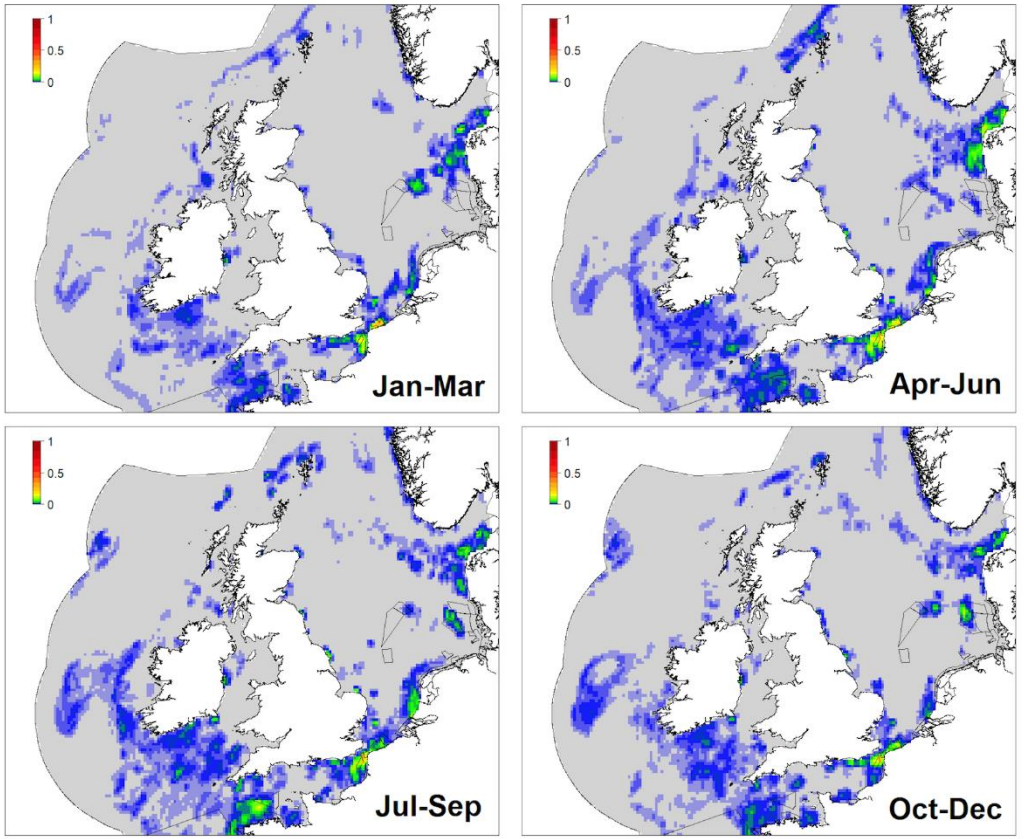
Bycatch Risk Mapping in the Greater North Sea

Static Gillnet Fishing Effort determined by AIS compared with VMS



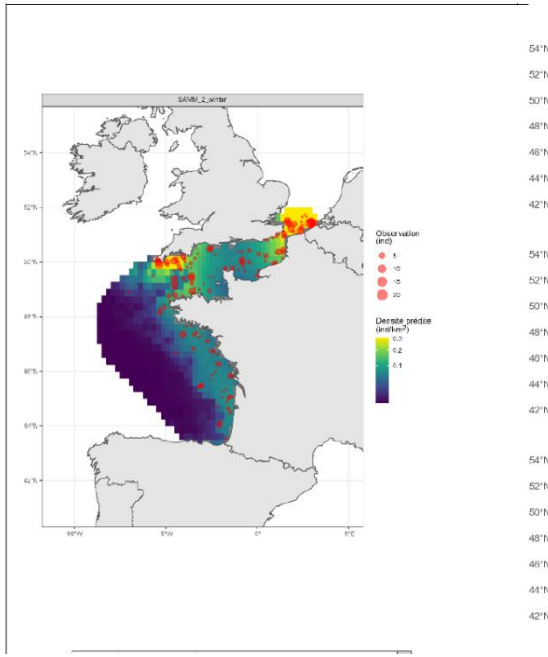
Source: Evans et al. (2021)

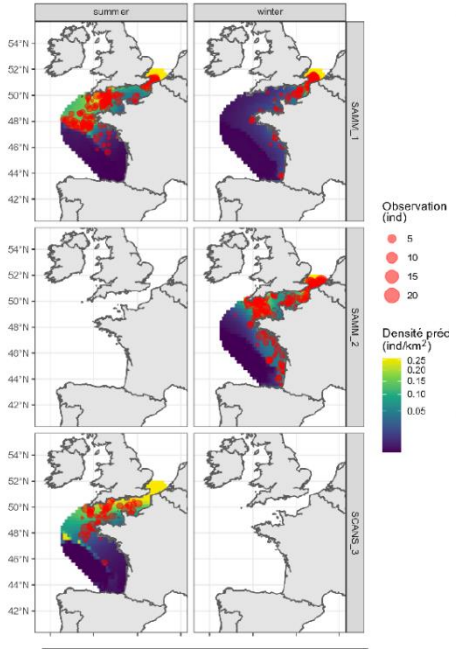
Seasonal Overlap between Harbour Porpoise Densities & Static Gillnetting Effort



Surveys & Monitoring in the Greater North Sea

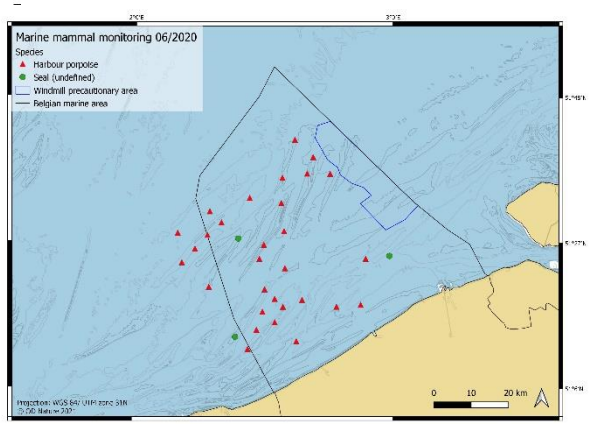
France (SAMM II Surveys)



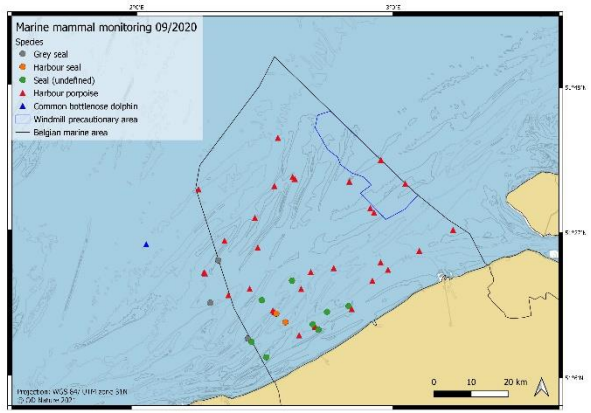


Belgium (RBINS Surveys)

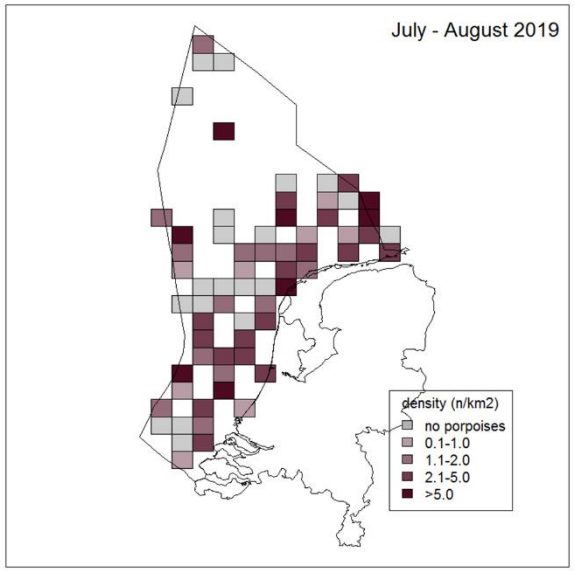
June



Aug



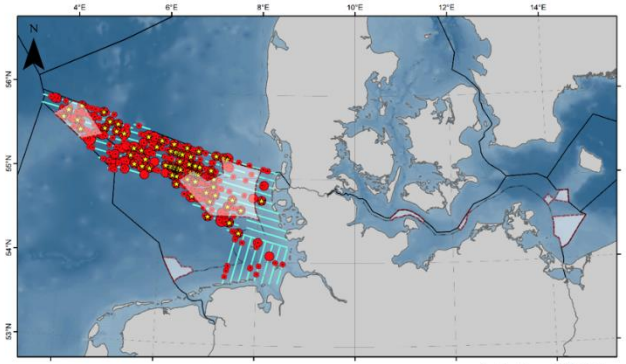
Netherlands (Geelhoed & Scheidat, 2020)



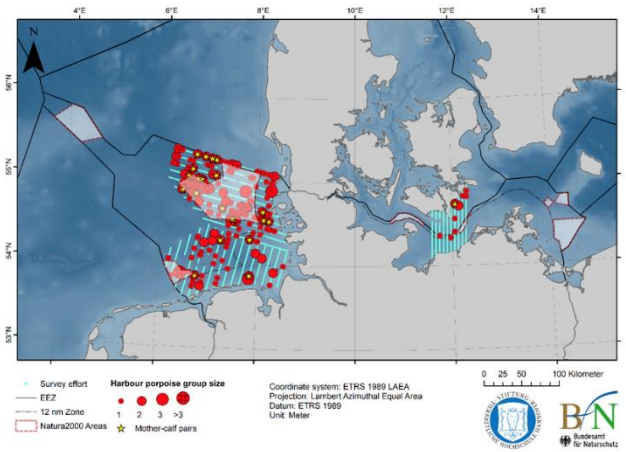
Surveys & Monitoring in the Greater North Sea

Germany (Gilles et al., 2021)

Spring



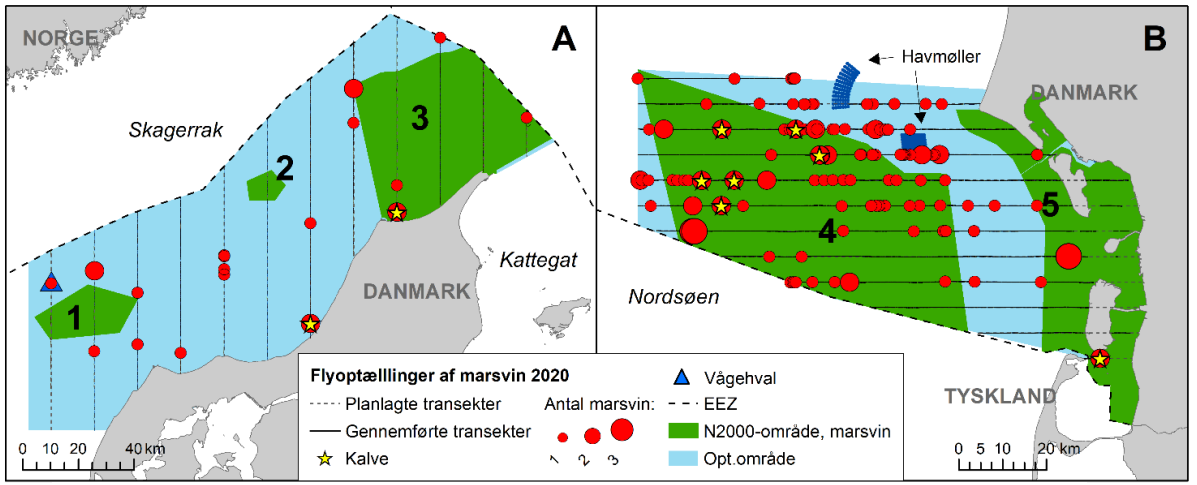
Summer

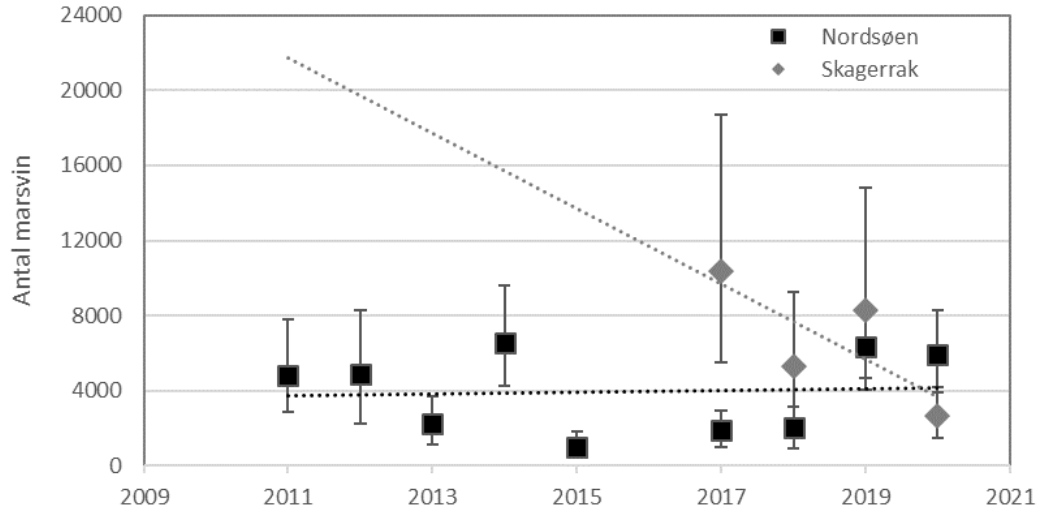


Denmark (Hansen & Høgslund, 2021)

July

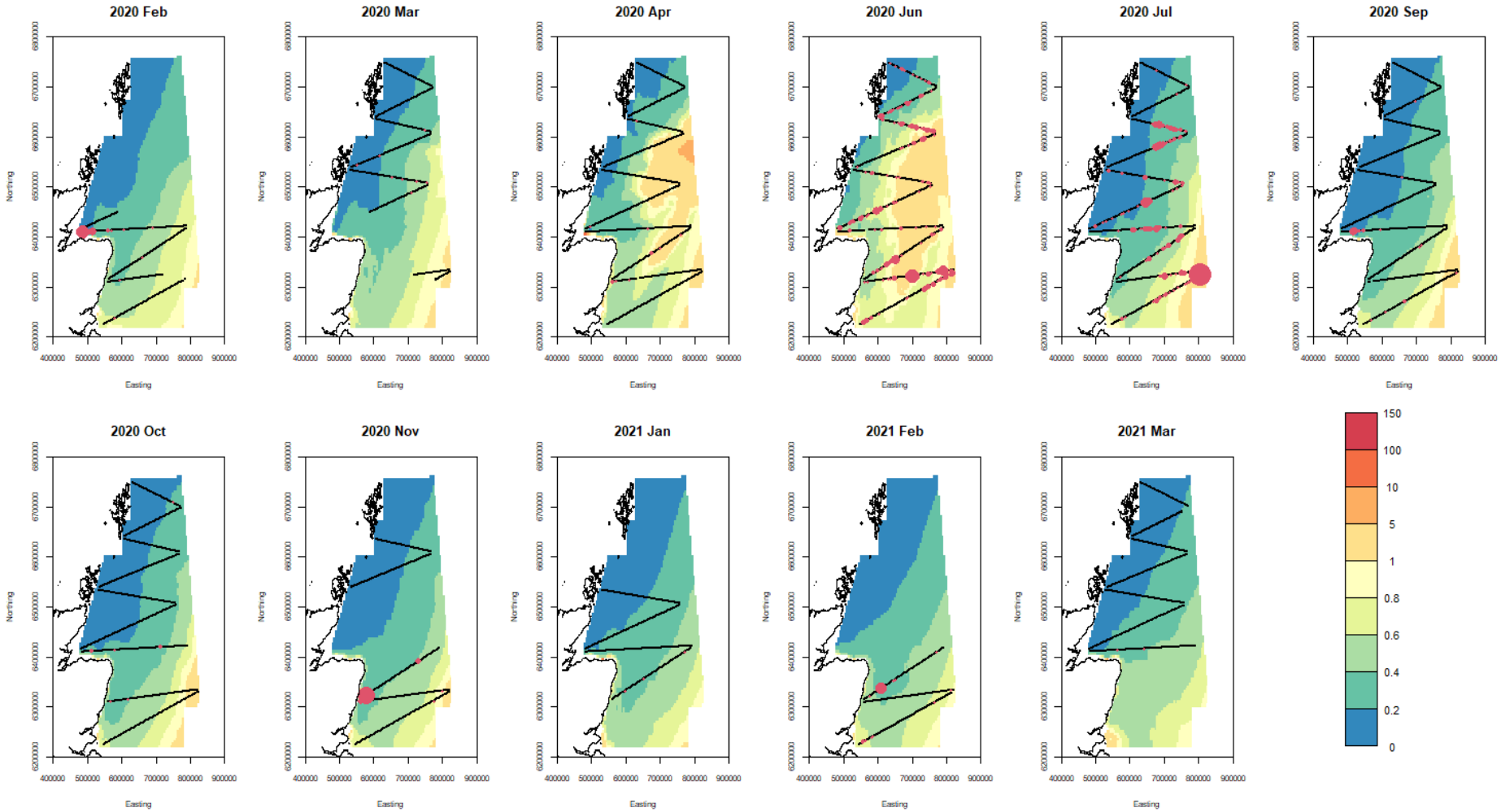
Aug





Surveys & Monitoring in the Greater North Sea

East Scotland (APEM Surveys – Paxton et al., 2022)



Some of the Findings Reported at NSG10

- Norwegian study analysing bycatch rates from coastal gillnet fisheries with 3,500 net km days found a 95% reduction in bycatch for the fishing effort with pingers vs without pingers
- Analysing Norwegian mosaic surveys from 2013-18, for the northern North Sea and western part of the central North Sea they had estimated close to 155,000 porpoises
- The international stranding investigation indicated an increase in strandings between 1990 and 2017 in the central North Sea with a sudden and steep increase since 2005 in the southern North Sea
- In eastern UK, the peak in strandings was mostly in spring; in southern areas, there were two peaks in spring and late summer; in German and Danish waters, the peak was in June/July
- In the Netherlands, bycatch was the main anthropogenic cause of death in strandings necropsied affecting mainly juveniles
- 200 porpoises (particularly recently pregnant adult females) stranded in the Wadden Sea islands over ten days in August 2021. In 75% of livers, the bacterium *Erisypelothrix rhusiopathiae* was found, and was thought to be the prime cause of this mass mortality
- Aerial monitoring of porpoises in Danish waters since 2011 indicated an increase in the southern North Sea and a steep decline in the Skagerrak
- From telemetry studies (1997-2019), porpoises tagged in the Wadden Sea (n=6) stayed there most of the time in contrast to animals in Inner Danish waters (n=124)

Priority Recommendations

Evaluation on fisheries with respect to extent of porpoise bycatch

- Parties and Non-Party Range States to focus monitoring and mitigation effort on high-risk fisheries and areas bearing in mind that the latest bycatch estimates for porpoises in the North Sea indicate the annual numbers bycaught likely exceed thresholds indicated from RLA analysis. There still remains great uncertainty around all bycatch estimates in the region.

Finalise a management procedure approach for determining maximum allowable bycatch limits in the region

- Attention is needed to revise the current ASCOBANS conservation objectives to incorporate a timeframe for their achievement, and in any management procedure approach to take account of the long-term objective to drive anthropogenic removals towards zero
- Parties, Non-Party Range States, and relevant national bodies to engage and take into regard stakeholder interests, in particular the fishing industry, to reach common solutions to fulfil conservation aims.

Priority Recommendations (cont.)

Development of alternative pingers and gear modifications (including other mitigation measures)

- Parties to support further investigations of approaches to mitigate harbour porpoise bycatch taking into account potential adverse impacts on other taxa such as birds and seals.
- Parties to support the testing of bycatch mitigation actions at a fleet level and implement those that have proved to be effective and practical.
- Parties to support more research on the behaviour of harbour porpoises around fishing gear, especially static nets, including their sensory capabilities and auditory health, for a better understanding of factors leading to bycatch.

Priority Recommendations (cont.)

Monitoring trends in distribution and abundance

- Parties are encouraged to collaborate on analyses of regional trends in porpoise distribution and abundance at a North Sea-wide scale and examine potential explanations for any observed changes.
- The North Sea Group to note any information on trends in abundance and distribution from the forthcoming OSPAR QSR2023 and consider the implications of the findings.

Investigation of the health, nutritional status and diet

- Parties are encouraged to do collaborative research on the extent and potential reasons for grey seal predation on harbour porpoises.
- Parties to facilitate rapid collaboration with stranding networks in the event of an unusual mortality event to identify potential causes of death. These should include new potential sources such as bacterial infections, e.g. *Erysipelothrix rhusiopathiae*.
- Parties are encouraged to further support North Sea-wide monitoring of life history parameters through the collection and analysis of stranded and bycaught animals in order to assess evidence of temporal changes in those parameters and explore links to anthropogenic drivers.

Priority Recommendations (cont.)

Investigation of the effects of anthropogenic sounds on harbour porpoises

- In the light of recent studies demonstrating acoustic trauma in porpoises due to explosions in the Baltic, serious concern is expressed over similar activities occurring in the North Sea. Surviving animals might have impaired hearing which, among other things, could affect their ability to detect nets and find prey. The Secretariat is asked to bring these studies to the attention of all North Sea States and relevant bodies carrying out explosions.
- Parties to make every effort to mitigate the effects on porpoises of activities involving explosions.
- Collaborative studies are encouraged to quantify the impact of both impulsive and continuous noise on harbour porpoises.
- Parties and Non-Party Range States to encourage research to establish the population level impacts of noise levels and exposure duration.
- Parties and Non-Party Range States to encourage international harmonisation of noise thresholds for regulatory purposes.