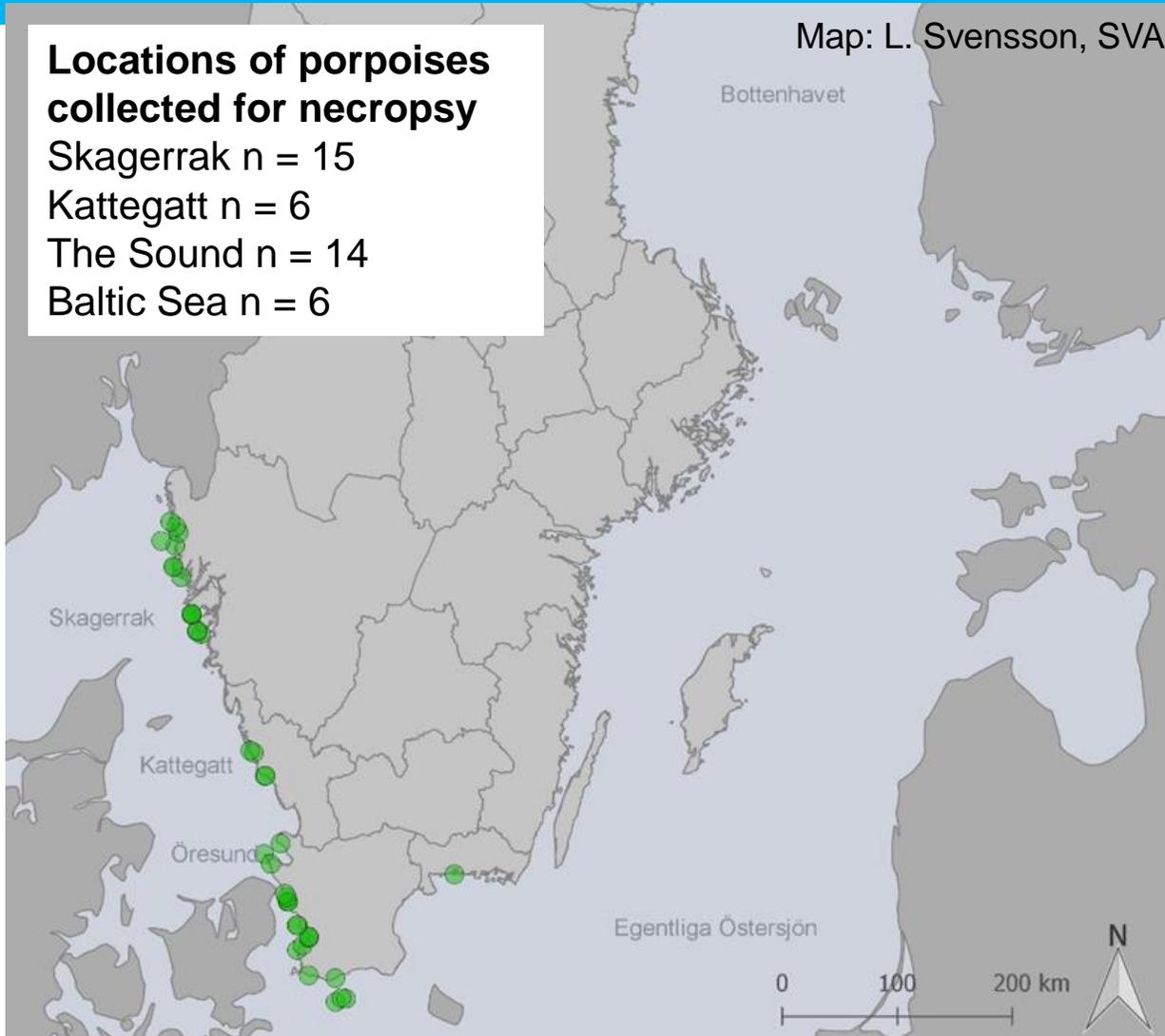


Monitoring trends in distribution and abundance of harbour porpoises in the region

- Sweden involved in the SCANS IV as a co-financer (SwAM) and expert support (NRM).
- Currently no national acoustic monitoring in the Skagerrak Sea (North Sea pop).
- National monitoring programme to be evaluated in 2023 (NRM on behalf of SwAM), incl. recommendations for future changes, which may incorporate PAM in the Skagerrak Sea (NS population).



Action 9/10



- 41 porpoises were examined by necropsy
 - 22 were found stranded
 - 19 were bycaught (submitted by fishermen March-May and July-October)
- 22 females, 19 males
 - 13 sexually mature, 12 immature, 16 calves
 - All 5 adult females were pregnant
- We determine cause of death and health status, document nutritional condition and reproductive status, and collaborate with researchers at Lund University and Gothenburg University to investigate diet

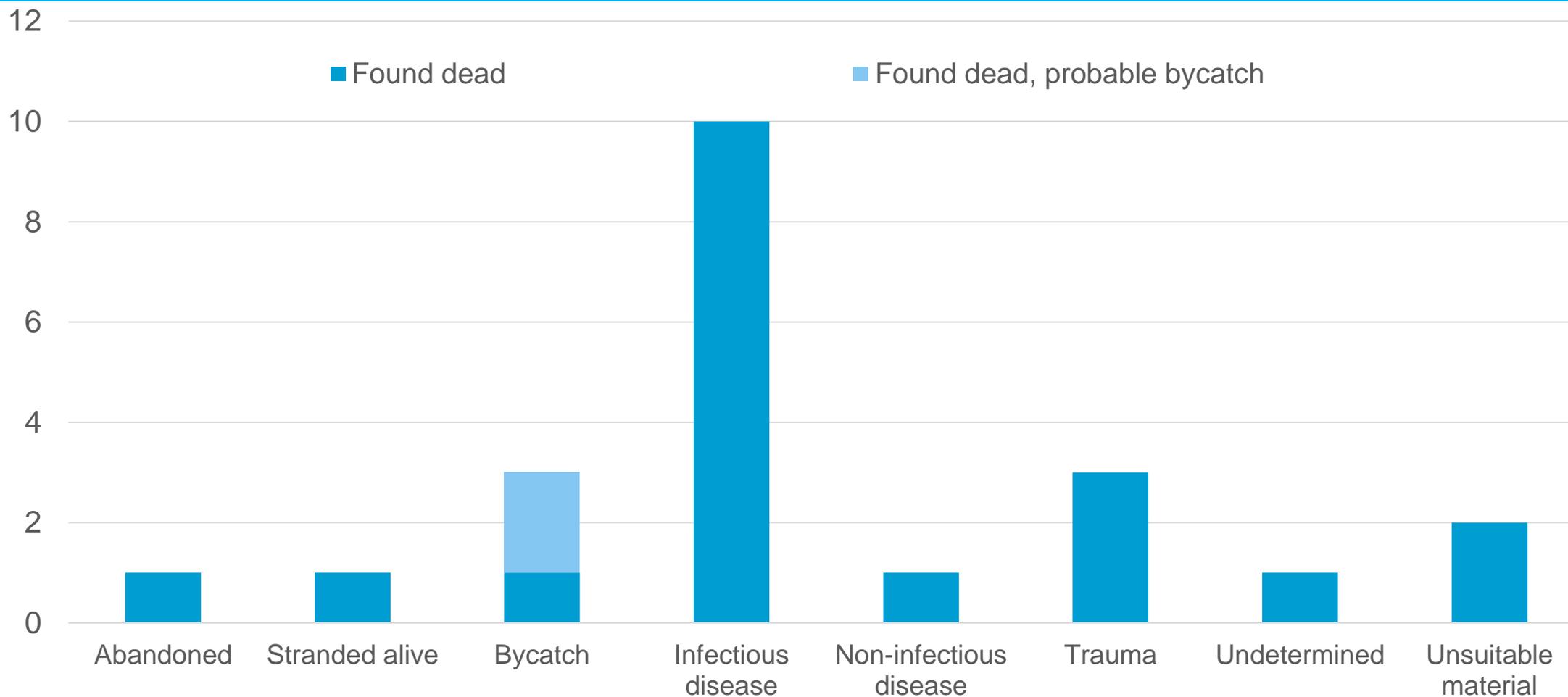


Photo SVA

Bycaught harbour porpoise with skin lesions

- In addition to the 19 animals submitted by fishermen, stranding data contributed information on incidental bycatch
 - In previous years, **bycatch** was the **most common diagnosis** for **stranded porpoises**
 - In 2022, a **smaller proportion** (n=3) of **stranded** animals were diagnosed as **bycaught** than in previous years.
 - **Bycaught animals**, including those submitted by fishermen, often had other **significant health findings** including **pneumonia** and **skin lesions**. These animals help us follow general health trends in the population.

Action 9/10



Infectious disease (parasitic, bacterial, viral) was the most common cause of death

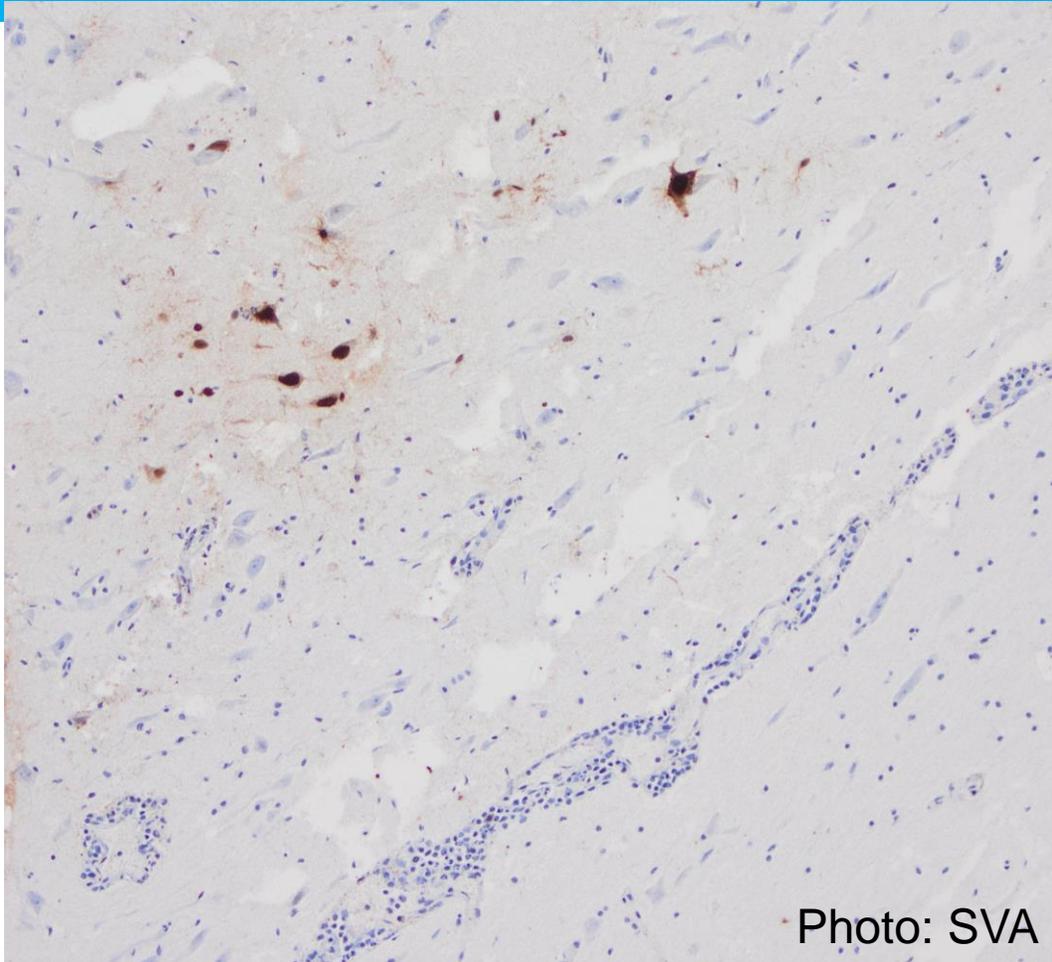


Photo: SVA

Brain inflammation (small, blue cells) caused by avian influenza virus. Virus in brain cells is stained brown.

- The first fatal case of highly pathogenic avian influenza virus (H5N1) was found in a stranded harbour porpoise. It coincided with a large influenza outbreak in seabirds and reflected the high viral infection pressure in the marine environment
- Three porpoises died from *Erysipelothrix rhusiopathiae* bacterial pneumonia. This apparent increase in cases and may reflect a more pathogenic strain of bacteria, lowered host immune status or both.
- Skin infections are commonly seen and further characterization is on-going

For more information:

aleksija.neimanis@sva.se or anna.roos@nrm.se

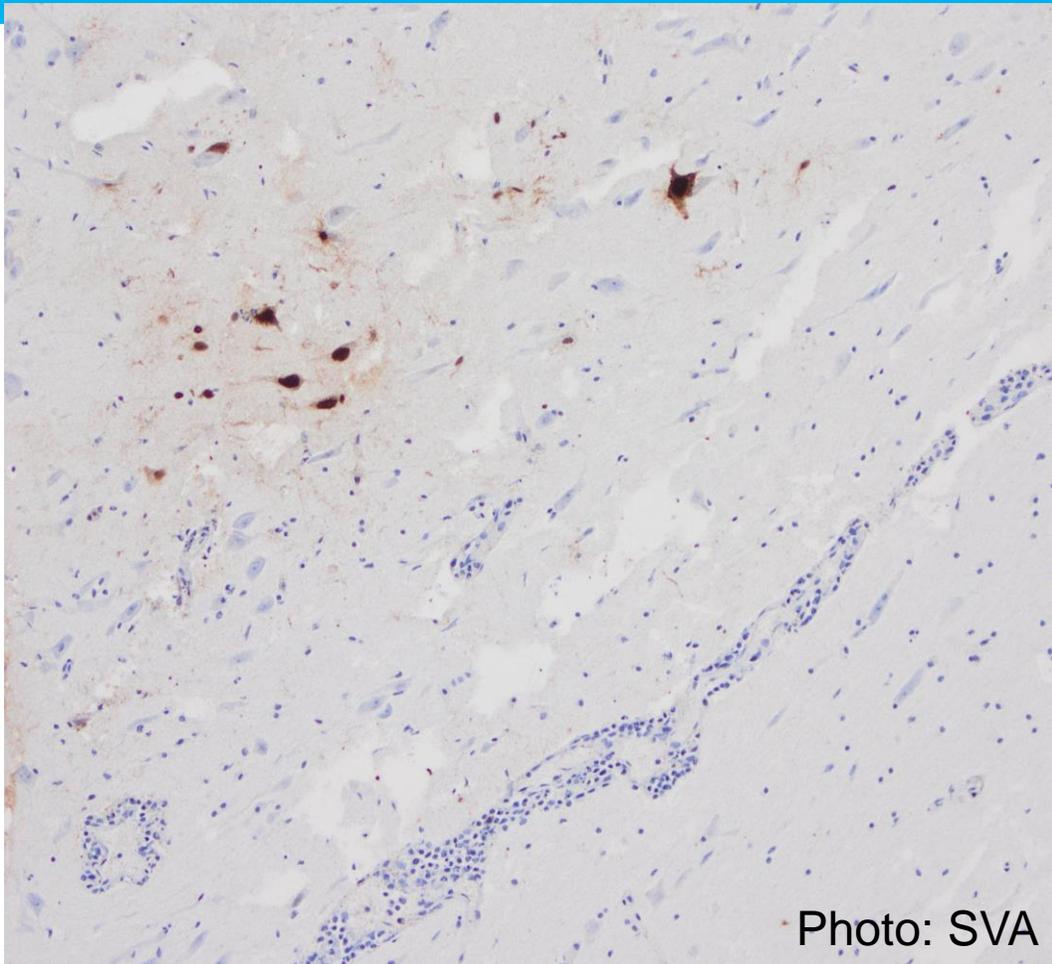


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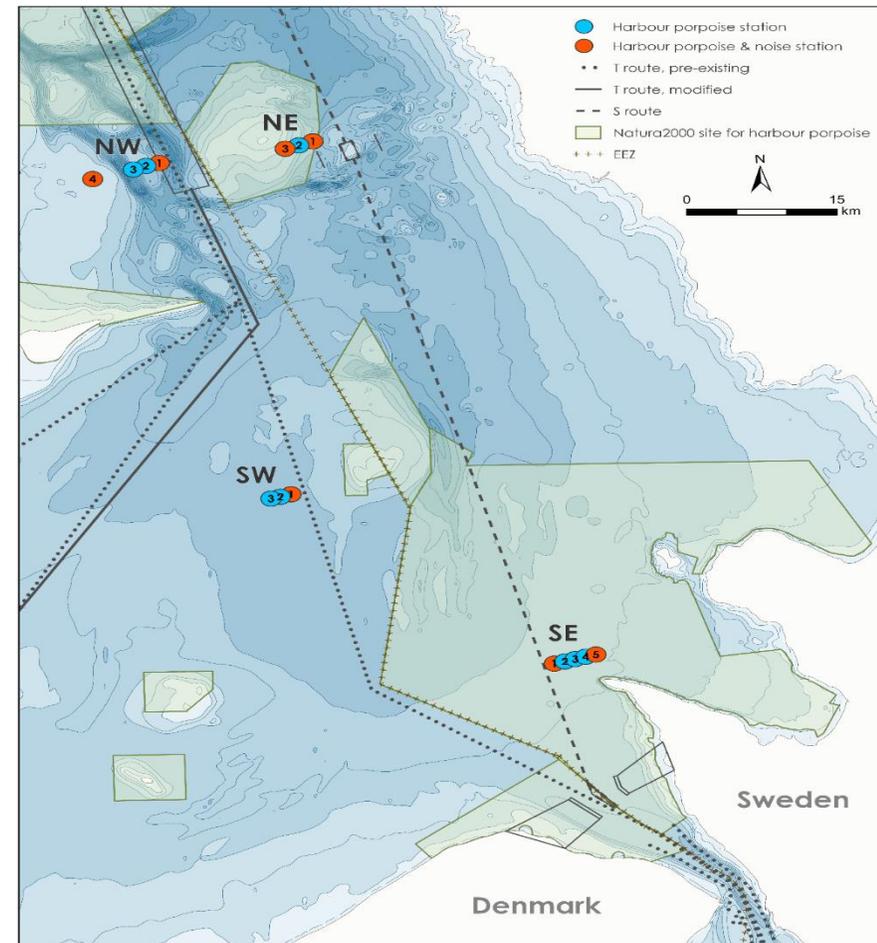
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Presentation on influenza finding at Jastarnia meeting

Investigation of the effects of anthropogenic sounds on harbour porpoises

- Shipping has short-term behavioural impacts on individual harbour porpoises.
- Longer-term impacts unknown.

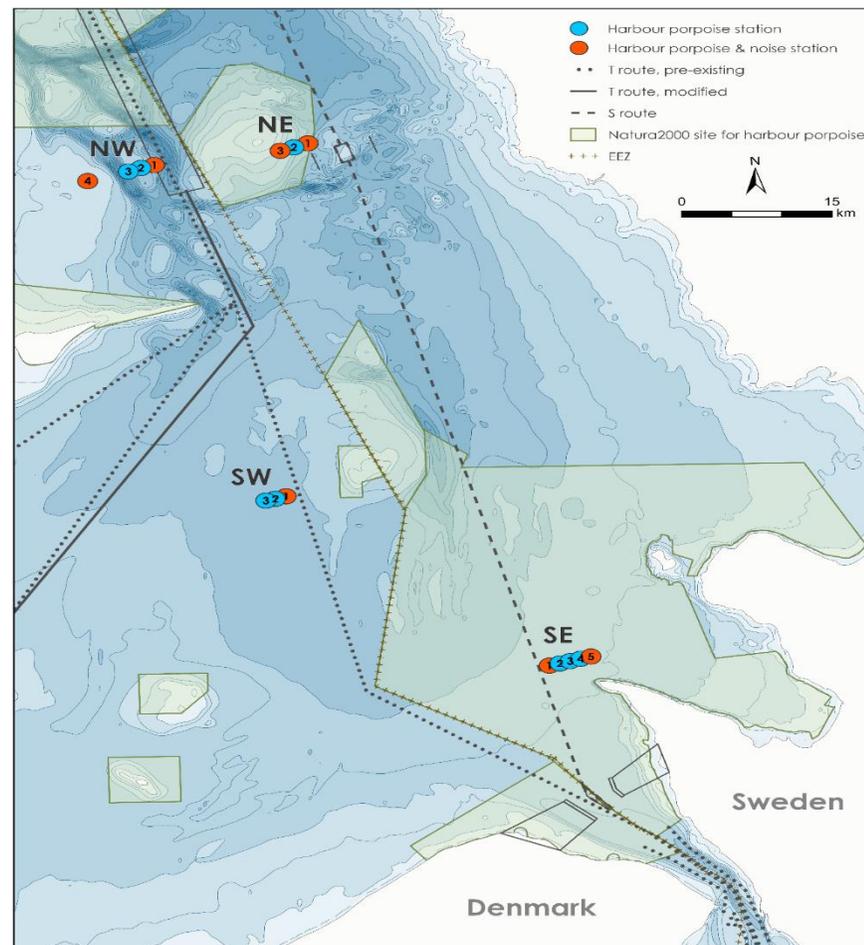


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TANGO project (NRM/FOI/AU)

- Re-routing of a major shipping lane in 2020 through important porpoise habitat
- 12 months of recordings before and after
- Underwater noise, AIS, CPODs



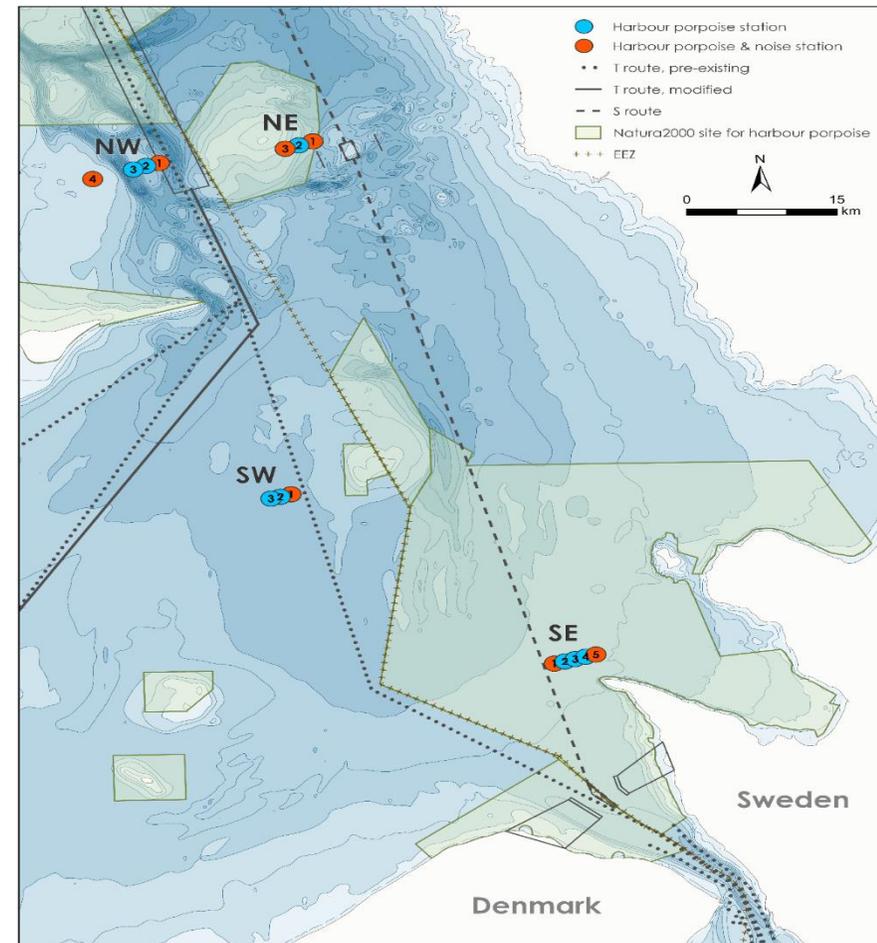
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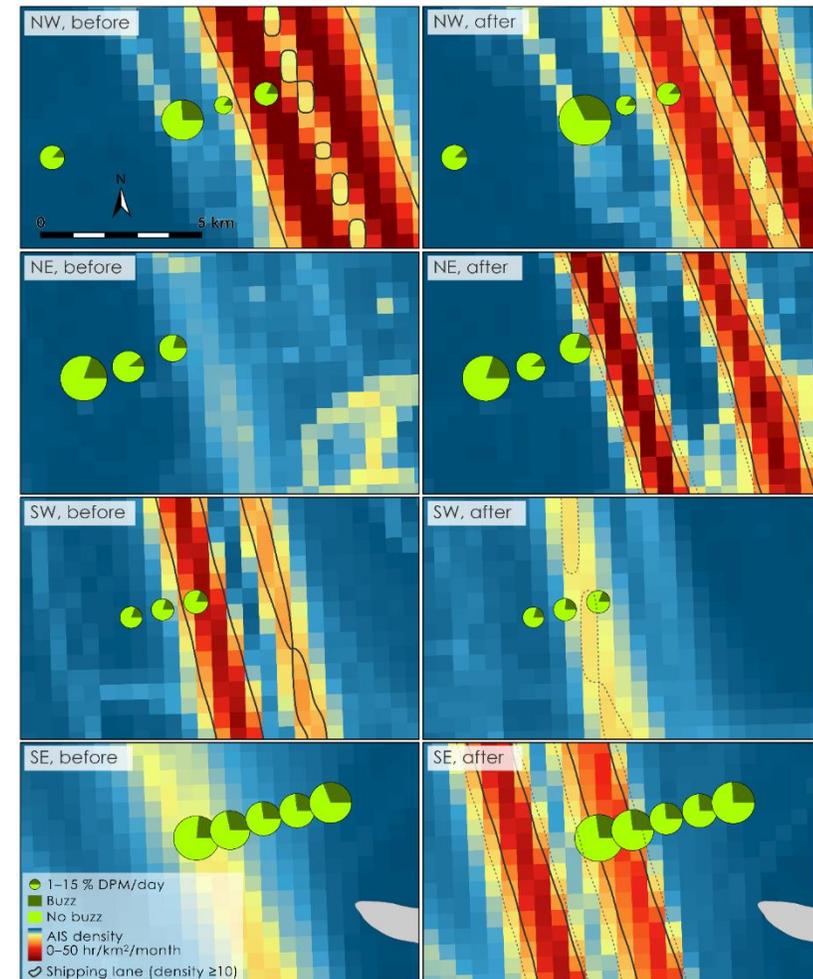
Hypothesis: less harbour porpoises and foraging in areas where noise and traffic increase



Investigation of the effects of anthropogenic sounds on harbour porpoises

Results

- Against predictions, no change in the long-term presence or foraging behaviour of harbour porpoises was detected.
- This is despite large recorded changes in underwater noise and vessel traffic.



Investigation of the effects of anthropogenic sounds on harbour porpoises

Results

- Against predictions, no change in the long-term presence or foraging behaviour of harbour porpoises was detected.
- This is despite large recorded changes in underwater noise and vessel traffic.
- Suggests that within the observed level of change in shipping and noise, harbour porpoises continue to use preferred habitat.
- Potential population-level impact of long-term heightened noise levels and ship passes in preferred habitat, on stress level and fitness remains unknown.

