Agenda Item 3.1	Implementation review: Research Monitoring trends in distribution and abundance of harbour porpoises in the region (Action 7)
Information Document 3.1a	**Information from Belgium**
Action Requested	Take note
Submitted by	Jan Haelters

ASCOBANS

Information from Belgium

Jan Haelters

Institute of Natural Sciences (RBINS)

Aerial surveys

Results of the 2023 surveys

In 2023, 3 aerial surveys were conducted. The average density of harbour porpoises during the surveys was the following:

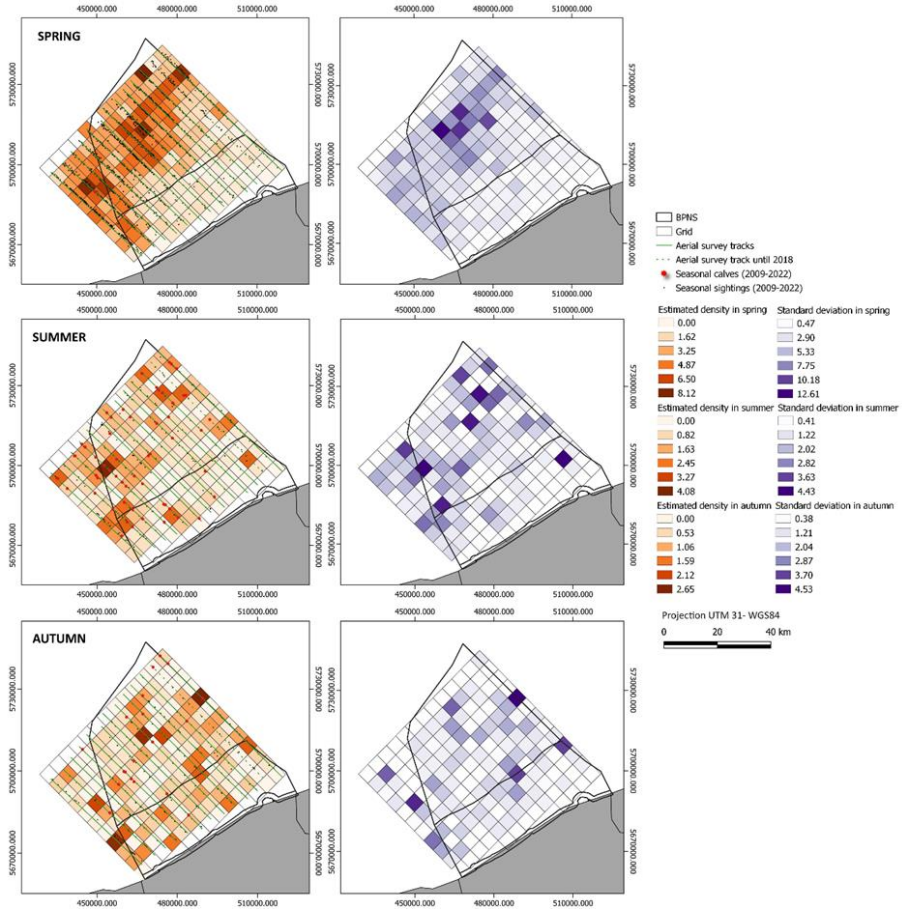
- April: 4.2 (3.2 – 5.6) animals/km²
- June: 0.41 (0.26 – 0.65) animals/km²
- September: 0.73 (0.49 - 1.09) animals/km²

This is in line with densitities in previous years.

The number of seals observed during the surveys shows an increasing trend, with especially in autumn a relatively large number of sightings. No other marine mammals than seals and porpoises were observed.

Analysis of the surveys 2009-2022

The occurrence and seasonal distribution of the harbour porpoise in the Belgian part of the North Sea (BPNS) was analysed using the data collected between 2009 and 2022 (Haelters, Paoletti et al., 2023). The main aim was to investigate if the data could be used to investigate the potential effect of operational offshore wind farms (OWFs). The occurrence and distribution of porpoises was investigated as a function of a selection of environmental drivers and anthropogenic stressors. The species' distribution followed a consistent seasonal pattern, with the highest densities in spring, but with a high interannual variability in abundance, with peaks in 2011, 2014 and 2018. Porpoise distribution was explained by latitude and longitude, with the species preferring the western part of the BPNS, revealing a strong overlap with the Vlaamse Banken Special Area of Conservation (SAC). The distribution was also significantly negatively correlated with marine traffic intensity and distance to the closest OWF, but caution is needed in order not to overinterpret these correlations. Further studies are recommended to support or confute the findings of this study, and to better understand the interaction between natural factors, such as prey availability, and anthropogenic stressors driving the species distribution. The results of such studies may influence the management of future activities at sea and assist in conservation efforts.

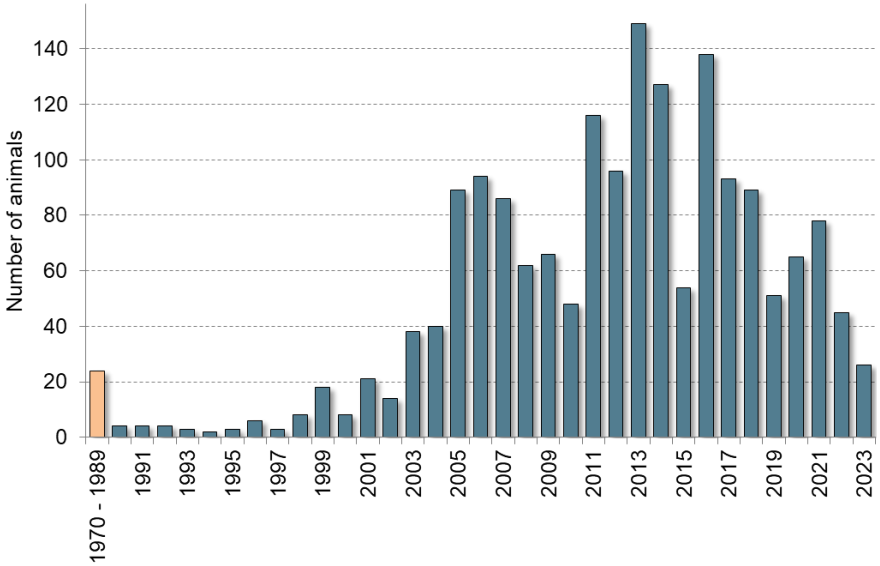


Seasonal density distribution maps of harbour porpoises (ind/km2) (left) and associated variability (right) in the survey area, largely covering Belgian waters, in spring (March–May), summer (June–August), and autumn (September–November), calculated as mean between 2009 and 2022 (Haelters, Paoletti et al., 2023).

Strandings

Porpoises

In 2023 the lowest number of strandings of porpoises was recorded of the last 20 years: 26. In April, up to a few years back the month with the highest number of stranded animals, not a single porpoise stranded. Additionally, most of the porpoises were very decomposed, and only 5 were collected for further investigation. For 0 porpoises the cause of death was an attack by a grey seal, the lowest number since 2010.



Strandings of harbour porpoises in Belgium (Haelters et al., in prep.)

Common/striped dolphins

In 2023 3 dolphins washed ashore: two animals that could not be identified to the species level due to their very advanced stage of decomposition: common or striped dolphins. Besides these, a fairly fresh common dolphin washed ashore; it was collected, but the results of the necropsy are not available yet.

Killer whale

On 29 October an adult male killer whale of 6.05 m washed ashore alive. It died very shortly after stranding. It was infested with whale lice, and clearly not healthy. It was emaciated, had an empty stomach (except for some amphipods that live in jellyfish), and very few internal parasites. It tested negative for avian influenza (brain tissue). Images were sent around for photo-ID, but no positive identification could be made (Norway/Iceland down to Gibraltar, Madeira and Azores). Genetic investigations are underway.

Ship collisions

In 2023, a fin whale (*B. physalus*) was brought to the port of Antwerp on the bulb of a ship. It concerned a juvenile male of 10.5 m in an advanced state of decomposition. The necropsy confirmed death due to collision, but also an unhealthy condition prior to death.

The ship collision probably occurred in the Bay of Biscay, but the vessel that brought it to port could not be identified with certainty. The case was reported to the IWC.

References

Haelters, J., Paoletti, S., Vigin, L. & Rumes, B., 2023. Seasonal distribution of harbour porpoises (*Phocoena phocoena*) and response to operational offshore wind farms in the Belgian North Sea. In: Degraer, S., Brabant, R., Rumes, B. & Vigin, L. (eds). Environmental impacts of offshore wind farms in the Belgian part of the North Sea: progressive insights in

changing species distribution patterns informing marine management. Memoirs on the Marine Environment. Brussels: Institute of Natural Sciences, OD Natural Environment, Marine Ecology and Management: 61-83.

Haelters, J., Moreau, K. & Kerckhof, F., 2024 (in prep). Zeezoogdieren en zeeschildpadden in België in 2023 [Marine mammals and sea turtles in Belgium in 2023]. Institute of Natural Sciences, Brussels.