

Indicator on HP abundance & distribution

Working group

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Photo by Danielle Dion: <https://porpoise.org/about-porpoises/harbour-porpoise/>

Primary MSFD criteria for HP

- **D1C2:** The population **abundance** of the species is not adversely affected due to anthropogenic pressures, such that its long-term viability is ensured.
- **D1C4:** The species **distributional range** and, where relevant, **pattern** is in line with prevailing physiographic, geographic and climatic conditions.

HP populations in HELCOM area

- Two populations: **Belt Sea (BS)** and **Baltic Proper (BP)** that are assessed separately
- Data available:
 - **BS**: visual data from SCANS surveys (1994, 2005, 2016) and Mini-SCANS (2012, 2020), and passive acoustic and visual data from National monitoring programs
 - **BP**: passive acoustic data from SAMBAH (2011-2013) and National monitoring programs

Progress since EG MAMA 13

- Indicators now split (with two documents updated):
 - Abundance and population trends of harbour porpoises
 - Distribution of harbour porpoises
- **SAMBAH II** application submitted:
 - Plan for setting GES & FRV thresholds for BS and BP populations
 - Initial trend information for BP population from SAMBAH data, National monitoring data, and the second abundance estimate
- **HELCOM BLUES** proposal for BS population trend estimation and exploratory work on how to evaluate distribution

Abundance and population trends

- Assessed at two scales for both BS and BP population:
 - **Absolute abundance** (population level surveys, e.g. SCANS and SAMBAH: 6-12 years)
 - **Trends in abundance** (monitoring at key sites: frequent or continuous; and population level surveys)

Abundance and population trends

Foreseen status of the indicator development on harbour porpoise abundance by September 2021.

	Absolute abundance		Trend in abundance	
	Indicator developed	Assessed	Indicator developed	Assessed
Belt Sea	No ¹	No	Possibly ²	Possibly ²
Baltic Proper	No ¹	Yes	No ¹	No ¹

¹ Possible after completion of SAMBAH II project (2021-2027).

² Dependent on funding and data availability.

Distribution

- Challenging to select correct metric for highly mobile marine species
- Assessed at two scales for both BS and BP population:
 - **Population distribution** (population level surveys, e.g. SCANS and SAMBAH: 6-12 years)
 - **Trends in distribution** (monitoring at key sites: frequent or continuous; and population level surveys)

Distribution

- Difficult to assess whether change in distribution is good or bad without information on population status, or ideally, habitat quality.
- Likely to be assessed as a two-step process:
 - Step 1) Has a **change in distribution** occurred over time?
 - Step 2) How does this relate to the **concurrent assessment of absolute abundance** for the population?

Distribution

Foreseen status of the indicator development on harbour porpoise distribution by September 2021.

	Distributional range*		Distributional pattern*	
	Indicator developed	Assessed	Indicator developed	Assessed
Belt Sea	No	No	No	No
Baltic Proper	No	Yes	No	No

* Possible funding for a workshop in 2022 to facilitate method development and progress on this indicator

Key site definitions

- Harmonised monitoring recommendations, incl. sites to be monitored, to be developed in SAMBAH II
- Interim recommendations:
 - Continue using current national monitoring stations
 - For new stations, select:
 - stations with high detection rates in e.g. SAMBAH
 - sites of historical importance
 - sites with similar environmental features as sites with known high detection rate