Document title	Future work on HELCOM indicators - Waterbirds
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Background

The following document contains a brief topic summary that addresses the overall aim of indicator work and assessments on the given topic. It outlines the current status and gives an indication of the work needed to adjust/develop the identified indicators. Potential avenues of cooperation are also described. Where possible the information has been compiled based on responses received from the HELCOM indicator questionnaire process and revised based on comments received at the 1st HELCOM Indicator Workshop. This is particularly the case for the section on the aims of the work, which was a focus of attention at that 1st indicator workshop.

Action requested

The Workshop is invited:

- to take note of the information and use it as needed to support the discussion
- provide comments or corrections as needed

Waterbirds

Future work on HELCOM indicators – towards the 3rd Holistic Assessment of the Baltic Sea 2023.

Indicators under discussion

1. *Abundance of waterbirds in the breeding season.
2. *Abundance of waterbirds in the wintering season.
3. core: Number of drowned mammals and waterbirds in fishing gear (addressed independently)
4. candidate: waterbird distribution
5. proposal: waterbird breeding success
6. proposal: waterbird population structure
7. proposal: waterbird habitat quality

*Completed indicator questionnaires received.

Main indicators listed in black text are those discussed below, with other related indicators or proposals listed in grey. These indicators appear in the additional document that considers the HELCOM indicator-policy match and scoring (Document 17 - HELCOM indicator-policy matching and draft scoring, and annex).

Aim

To date the assessment of birds has been restricted to the abundance of both wintering and breeding birds. In the short term the overall aim for the coming assessment should be to ensure to include off-shore species and include defined threshold values so that aspects such as imbalances in the food web could be inferred, e.g. species which increase disproportional to other species in the respective species groups. Effects of by-catch for species at risk must be included in the coming assessment.

In the long term a broad assessment beyond HOLAS III of waterbirds should look to additionally include aspects such as: distribution and breeding success, with all parameters covering the whole Baltic Sea region at appropriate assessment scales suitable for both monitoring data and ecologically relevant evaluations. Distribution, habitat and aspects such as breeding success would also contribute to a more complete assessment of waterbirds in the future.

General introduction and current status

There are currently two operational HELCOM indicators covering waterbirds, listed above in black. The breeding season indicator is considered fully operational (as breeding birds are based on land), and though operational and applicable in all areas of the Baltic Sea the wintering season indicator needs appropriate steps taken to ensure suitable coverage of open sea areas for assessments. An summary assessment of waterbireds was carried out in the 2018 State of the Baltic Sea report. A review of co-lead countries may be relevant to clarify roles.

Relevant species or lists

In the 2018 indicator assessment 29 breeding bird species and 22 wintering bird species were assessed, additionally categorised within the following groups: surface feeders, pelagic feeders, wading feeders, benthic feeders, and grazing feeders. A recent reference list of MSFD species and habitats compiled by the Joint Research Council (JRC) compiles 62 waterbird species relevant for the Baltic Sea region, accompanied by the JRC Technical Report documenting the approach used (Document 13 - Supporting information - JRC's reference lists of MSFD species and habitats, and

annexes). Additionally, 71 bird species linked to the 2012 HELCOM Check List are also provided (Document 14 - Draft HELCOM species list matching, and annex), matched against (EU) 2016/1251 Table 1D. *Please note that both of these documents can be considered as 'drafts' at this stage, and updates or corrections by experts from the Contracting Parties will be warmly welcomed.* Clear definition of the regional agreement on the list of species to be monitored is needed.

Development/adjustment work

In addition to the species assessments, composite multispecies indices (for each functional group) are planned as a tool to strengthen explanatory power of the indicator, i.e. showing more clearly, where and when problems for waterbirds arose. The current 'database' solution relies on data calls and collation of individually reported data (and expert links following up), so data submission functionality and other issues remain problematic. Establishing a defined process would benefit the indicator functionality.

Breeding season: To improve indicator functionality (e.g. quality and efficient assessment) data availability, particularly at the smaller assessment scale, needs to be addressed in some areas, and data should be reported and reviewed with a regular annual deadline. A common database (rather than national databases) is desirable, as well as automatic data flow according to a fixed schedule (rather than data calls). The database of the Intenational Waterbird Census (IWC) can serve as an example for holding breeding bird data.

Wintering season: Coastal counts currently form the major basis of the indicator assessment, thus the assessment of wintering birds is incomplete. Extending offshore seabird monitoring to all parts of the Baltic Sea is required, in addition to their subsequent incorporation into the indicator assessment. Although methods for offshore monitoring and its analysis are in place, substantial additional information will be obtained by the inclusion of offshore data, and the indicator data reporting approach, 'database' solution, and analysis will need to be adjusted to incorporate such data (i.e. transect-based counts) appropriately. Coastal waterbird counts data are available via IWC and used in this indicator (Wetlands International database). The European Seabirds at Sea (*ESAS*) database holds data on offshore surveys, which are suited to the indicator, and discussion has been held on their use in preparation for inclusion of offshore waterbirds in the indicator assessment. The specific application of this data and the hosting of the ESAS database (e.g. by ICES) remain to be finalised.

Potential obstacles

Breeding season: Data availability for the indicator is an issue in some countries. As an example, in Finland there is good breeding bird monitoring scheme in place, however, only 7 sites (out of potentially hundreds) were available for the HELCOM indicator, due to issues such as data ownership. No data was available from some countries (e.g. LT and RU) because either no monitoring or no data were delivered during the indicator evaluation. Even in countries where monitoring and reporting is in place, not all species that would be relevant are monitored. Funding for national monitoring projects needs to be maintained to ensure the level of data availability to repeat, and improve, future assessments.

Wintering season: Data availability and reporting issues, as well as funding for national monitoring projects can have a major impact on the successful implementation and quality of the indicator assessment. Coverage of the Bothnian Sea needs to be increased since this region is becoming more relevant (i.e. due to milder winters).

Note: many of the above issues or potential obstacles also have resource implications.

Frequency

An annual update is viable (if effective data reporting can be established), with a full assessment to meet policy commitments, such as the BSAP and MSFD, considered most suitable. Annual data reporting and review should happen irrespective of update frequency.

Potential for cooperation

Further development should be done by waterbird experts in JWGBIRD, in close collaboration with OSPAR experts.

Other issues

The workshop is invited to document other aspects they consider to be relevant to the development of this specific indicator category.

A number of issues raised previously (though not an exclusive list) that may be relevant for discussion include: integration rules, linkages between biodiversity and eutrophication (e.g. status and threshold values), appropriate coordination with MSFD CIS processes, and appropriate coordination with OSPAR.