Document title	Status of HELCOM Seal database
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Agenda Item	4 – Monitoring and data collection
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Background

This document presents the current status of HELCOM Seal database.

The HELCOM seal database was developed under the HELCOM coordinated EU co-financed project BalticBOOST (duration 2015 – 2016) in its work package 1.2 'Biodiversity databases' with NRM, Sweden, and Århus University, Denmark as subcontractor. The project developed a reporting format and database structure to be used for reporting data stemming from Seal monitoring programmes carried out by HELCOM Contracting Parties and to provide data to following indicators:

Distribution of Baltic Seals

Population trends and abundance of seals

The development of HELCOM Seal database was presented to HELCOM SEAL EG 10-2016 which discussed the data format and clarified that detailed data is needed for the distribution indicator though for the population trends and abundance indicator the level of data detail is not as high. The meeting agreed to further develop the reporting format for the seal database within a drafting group and to agree on the level of detail requested for the data.

The online meeting of drafting group was held in 20 October resulting in a development of modified reporting format, which can be used to report pointwise observations or aggregated or gridded counts. The first data call requesting data until 2015 was issued in November 2016. A new data call for data until 2016, utilizing the modified reporting format was issued in September 2017. This document also displays the status of data submissions following the latest data request.

Action requested

The Meeting is invited to take note of the current status or HELCOM Seal database.

1. Background

The HELCOM seal database was developed under the HELCOM coordinated EU co-financed project BalticBOOST (project duration 2015 – 2016) in its work package 1.2 'Biodiversity databases' with NRM, Sweden, and Århus University, Denmark as subcontractor. The project developed a reporting format and database structure to be used for reporting data stemming from Seal monitoring programmes carried out by HELCOM Contracting Parties and to provide data for following HELCOM Core indicators:

- Distribution of Baltic Seals
- Population trends and abundance of seals

The development of HELCOM Seal database was presented to HELCOM SEAL EG 10-2016 which discussed the data format and clarified that detailed data is needed for the distribution indicator though for the population trends and abundance indicator the level of data detail needed is not as high. The meeting agreed to further develop the reporting format for the seal database within a drafting group and to agree on the level of detail requested for the data.

The online meeting of drafting group was held in 20 October resulting in a development of modified reporting format, which can be used to report pointwise observations or aggregated or gridded counts. The format is described in Paragraph 5.

2. Status of data submissions as of 2 October 2017

The first data request, for data until 2015, was issued in November 2016. A new data call for data until 2016, utilizing the modified reporting format, was issued in September 2017 by the HELCOM Secretariat, with a deadline of 4 October 2017 (Document 4-1). The status of data submissions is indicated in Table 1.

Table 1. Data submitted as of 2 October to Seal database, by latest reporting year and by species.

Country	Grey seal	Harbour seal	Ringed seal
Denmark	2016	2016	No monitoring
Estonia	2015		*
Finland	**	**	**
Germany	2016	2016	No monitoring
Latvia	No monitoring	No monitoring	No monitoring
Lithuania	No monitoring	No monitoring	No monitoring
Poland	**	**	No monitoring
Russia	***	***	***
Sweden	**	2016	**

*) For ringed seals the spatial level of accuracy and aggregation has to be agreed with Estonian Environmental Agency.
**) Data is in preparation.
***) Last survey with the HELCOM method was done on 2011 for Grey seal and 2012 for Ringed Seal. Data from Ringed seal survey for 2017 exists.

3. HELCOM Seal database

HELCOM Seal database can be accessed online via http://bio.helcom.fi/seals.

The database contains data that has been reported for the previous data call in 2016 and was possible to make publicly available.

The database can be utilized for storing monitoring data that has been submitted in response to the latest data request.

4. Data use policy

As outlined in the data call for seal abundance/distribution (Document 4-1 Att1), and in HELCOM data and information strategy, the general practice is that all data collected for HELCOM assessment purposes should be openly accessible.

For transparency and replicability of the assessment, the underlying data used in indicator-based assessment should be publicly available on a relevant level of aggregation and documented with proper metadata on lineage and sources. This also enables the use of the core indicator for Marine Strategy Framework Directive reporting and specifically it's Article 19(3) on making underlying data available.

However, as mentioned in HELCOM data and information strategy, access to data used in assessment or by an expert group can be flagged as restricted. This could be for example aggregating specific species observation to coarser level or using data from non-public sources in the assessment.

The plan is to make non-restricted count data submitted by national data providers publicly available as a HELCOM dataset using HELCOM seal database and via HELCOM Map and Data service as spatial dataset in relevant aggregation level. The relevant level of aggregation could be the resolution in which the data has been submitted, unless other aggregation level has been requested by the national data provider.

5. Modified reporting format

One of the main task of BalticBOOST project (2015-2016) was to develop a format for collecting and storing data on seal surveys which would fulfill the following needs:

- Enabling pointwise collection of data in areas where data is collected in this detail level
- Be harmonized with OSPAR equivalent format as much as possible to make reporting less cumbersome for CPs both members of both OSPAR and HELCOM

Following the feedback received in SEAL EG 10-2016 meeting and by the Seal format drafting group meeting in 20 October 2016, the format was modified to make possible reporting of counts from aggregated sites or gridded data. This was done by making the following modifications:

- Site value can be text field in case of gridded data (e.g. Grid ID)
- Lat/Lon coordinates can be point or center point of an aggregated site (e.g. multiple skerries)
- New value was introduced to Count_type codelist: Aggregated site (to enable reporting of aggregated sites)

Table 2. Format for abundance/distribution data as displayed in the database web application and in the data request.

Column name	Data Type	Comment
ID	Integer	Unique id needed for the table
SpeciesID	Text	Code list harmonized with OSPAR (HS, GS, RS)
Country	Text	European union two character country designation (e.g. DE, DK) (Code list harmonized with OSPAR)
Site	Text	ID of site OR name of site in case of gridded observation
Latitude	Double	Latitude as in WGS84 decimal degrees (harmonized with OSPAR)
Longitude	Double	Longitude as in WGS84 decimal degrees (harmonized with OSPAR)
Natura2000ID	Text	ID of Natura2000 area, if site is within N2000 area (voluntary)
Year	Integer	
Month	Integer	
Day	Integer	
Count	Integer	
Count_type	Text	To indicate whether count is based on site observation, transect survey or aggregated count
Estimate_type	Integer	Maximum/modelled (Code list harmonized with OSPAR)
CV_Estimate	Integer	Please provide any available estimates of the variability in repeated counts in the form of the coefficient of variation (standard deviation / mean) of replicate counts (Code list harmonized with OSPAR)
Number_surveys	Integer	
Method	Text	
Source	Text	Used to identify national data source