Baltic Marine Environment Protection Commission

Group on Ecosystem-based Sustainable Fisheries

Copenhagen, Denmark, 25-26 June 2019

Document title	Updated plans for SOM analyses for biodiversity component fish
Code	3-7
Category	INF
Agenda Item	3 – Implementation and update of the Baltic Sea Action Plan
Submission date	18.06.2019
Submitted by	Secretariat
Reference	

Background

HOD 55-2018 agreed to establish an *ad hoc* platform for analysing sufficiency of measures (SOM Platform) to support the update of the Baltic Sea Action Plan (Outcome HOD 55-2018). The aim of the SOM analyses is to evaluate whether existing policies are sufficient to achieve good environmental status in the Baltic Sea. The updated approach for the analysis of sufficiency of measures is outlined in document 3-3 of this Meeting.

To implement the framework and contribute with the required data and information for the analyses, topic teams are established for each of the topics addressed by the SOM Platform. The topic teams will work intersessionally and report back to SOM Platform meetings and relevant Working Groups during the course of work. This document includes an updated plan for work to analyse the sufficiency of measures related to the biodiversity component fish.

Action requested

The Meeting is invited to take note of the information.

Updated plans for SOM analyses for biodiversity component fish

Organization of work

Sweden is leading the work on commercial fishes and coastal fishes. The Secretariat is supporting work on migratory fishes.

It is envisioned that experts connected to the HELCOM Fish Pro III network and Fish-M task force will be engaged in the work. Suggestions for connection to other expert networks are welcomed. Sweden and the Secretariat would welcome a co-lead country, particularly with interest in contributing to anadromous fishes.

Topics

1. Commercial fishes

Sprat, herring and cod will be evaluated individually on a Baltic wide scale based on the evaluation methods of HOLAS II. These methods consider both fishing pressure and stock size as reported in ICES stock assessments to develop single indicator for each managed stock. Further integration of multiple stocks into one Baltic wide metric will be based on the 'one out all out' approach. A pressure-state assessment will be required for each species.

2. Coastal fishes

Coastal fishes is a difficult topic given the highly localized nature of the indicator in contrast to the regional perspective taken by the SOM approach. The analysis will be based on the 'Abundance of key coastal fish species' indicator and the 2018 status assessment. The nature of the topic requires that the assessment be done at least partially at HELCOM scale 3; so, in order to simplify the analysis, only failing and near failing (definition tbd) areas will be fully analysed. The scale 3 areas will be aggregated wherever possible. Assessment done at scale 3 and aggregated to scale 2 based on the 'one out all out' principle. Geographic scale will be determined after all areas of interest are identified but a minimum separation based on the species of the indicator fish will be necessary.

3. Migratory fishes

Four species have been proposed for inclusion in the migratory fishes topic, However, due to resource limitations Baltic sturgeon and European eel may or may not be analysed.

- Salmon smolt production evaluated at the whole Baltic scale, integrated by summing observed and potential smolt production across the entire Baltic. This follows the same technique used to evaluate separate sub-basins in the core indicator report.
- Sea trout par production evaluated at the whole Baltic scale, preferably integrated by averaging river "recruitment status" as reported by ICES, but some data availability concerns exist. The alternative method will be a "one out all out" approach based on "recruitment status" by ICES subdivision. The integration technique used in the sea trout core indictor report is unclear, but the indicator is based on the "recruitment status" values generated by ICES with GES threshold at 50% "recruitment status".
- Baltic Sturgeon abundance at the whole Baltic scale targeted to the metric of having "best natural reproduction, and populations within safe genetic limits in each potential river" as identified in the BSAP.
- European eel abundance at the whole Baltic scale targeted to the metric "natural and robust abundance" as identified in the BSAP.

Model inputs

1. Measures

Measures connected to improving and restoring important habitats for fish can be partially coordinated with the work of the ACTION project (WP2 & 3). A summary of potential measures was also provided in HELCOM 2018[1] and this can be used as a starting point. The Common Fisheries Policy and related technical regulations will be particularly important for commercial stocks. However, national measures will be prominent for both coastal and migratory fishes topics and will be gathered by the Contracting Parties.

Measures to be included in the assessment will include those that are expected to have a direct effect on regulating either the productivity or the mortality of fish.

2. Pressure-State evaluations

A pressure-state evaluation will be necessary for each combination of topic and geographic scale. This number is not yet established but current estimates are: Commercial (3), Coastal (4-5), Migratory (2-4). These evaluations will be conducted in a workshop during Fall 2019.

3. Activity-Pressure evaluations

The only fisheries specific pressure included in the model is 'Extraction and bycatch of fish' and is contributed to by a very limited number of activities. It is expected that this evaluation can be 100% data based using primarily ICES catch data. This will be done by the topic team or Secretariat.

4. Effectiveness of measures

This involves two distinct aspects. Firstly, there will be a evaluation of the effect of fisheries measures on 'Extraciton and bycatch of fish'. Secondly, during the pressure-state evaluations there may be a number of direct to pressure/state measures that will need to be considered alongside the influencing pressures. Such measures might include stocking or targeted habitat restoration.

Information on fishing mortality and estimated fishing opportunities is available from ICES for internationally assessed species.

5. Base-state data

Data is readily available for the majority of planned topics through HELCOM indicator work and ICES data and reports.

6. Geographic scope

Geographic scope is easily set for all the proposed topics except coastal fishes. The approach for that topic has been described above and will be set as soon after review of HELCOM indicator data.

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[1] HELCOM 2018. Status of coastal fish communities in the Baltic Sea during 2011-2016 – the third thematic assessment.
Baltic Sea Environment Proceedings N° 161

Timetable

The timetable of work follows the preliminary timetable for action by the topic teams as below. Activities for 2020 are still to be outlined.

The timeline is adjusted in relation to the time plan suggested in the document *Guidance 1 to SOM topic teams* taking into account the fact that the work is being onset later, in May 2019.

Task	Outcome/contribution	Timeline 2019
Identify relevant measures frameworks	Very short information document	Complete
Identify presence of time-lags between measures and pressures	Very short information document	Complete
Propose geographic scale of analysis	Proposal	Agreed in principle
Expert evaluation: activity-pressure matrix	Anticipated to be entirely data based, expert opinion is therefore not necessary	As agreed with WP6 of ACTION project
Pressure-state time-lags	Data (models, project outcomes, literature)	June - September
Measure-pressure time-lag verification	Verify time-lag effected measures from list provided by Secretariat	Early September
Measure list verification	Verify no missing relevant measures from list provided by Secretariat	June - September
Effect of measures data	Data (models, project outcomes, literature, national reports)	June - September
Expert evaluation: effectiveness of measures	Participate in survey/workshop	October-November
Expert evaluation: pressure-state linkage	Participate in survey/workshop	October-November
Development of future activities	Data (models, project outcomes, literature, national reports)	Late fall
Synopses on potential new measures	Information document	End of year