



Baltic Marine Environment Protection Commission

Working Group on the State of the Environment and Nature
Conservation

STATE & CONSERVATION
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Note that this document was submitted after the established deadline due to the Workshop being held only on 28-29 September. It will be decided by the Meeting whether the document can be discussed or is postponed to the next meeting.

Background

Based on the [Terms of Reference](#) of the HELCOM Workshop on Status Assessment of Commercial Fish ([ComFish WS 1-2021](#)), held on 28-29 September 2021, the workshop was focused on providing recommendations to STATE & CONSERVATION 15-2021 on Status Assessment of Commercial Fish.

This document presents an extract of the recommendations from ComFish WS 1-2021 (Annex 2 of the notes) to STATE & CONSERVATION 15-2021 based on the following tasks carried by ComFish WS 1-2021:

- Task 2: Develop and recommend the framework of the assessment, i.e. which parameters/indicators should be used;
- Task 3: Recommend appropriate approaches for the integration of indicator results per species/stock and across the assessment period, respectively.

The document also presents other issues raised with relevance to or requiring guidance from STATE & CONSERVATION 15-2021, as well as recommendations for further work (i.e. section “follow up and resources”). Please note that the recommendation from ComFish WS 1-2021 on the task 1 (i.e. List of species for commercial fish assessment) is available in the document 3J-33 also submitted to the Meeting.

The notes of the workshop will be submitted at a later stage to STATE & CONSERVATION 15-2021.

Action requested

The Meeting is invited to:

- consider the recommendations from ComFish WS 1-2021 and provide guidance,
- discuss and agree on the way forward for issues raised in the section “Other issues raised with relevance to, or requiring guidance from State & Conservation”.

Recommendations on commercial fish assessment based on ComFish WS 1-2021

Task 2: Develop and recommend the framework of the assessment, i.e. which parameters/indicators should be used

This section contains the recommendation from ComFish WS 1-2021 to STATE & CONSERVATION 15-2021 related to the task 2 “Develop and recommend the framework of the assessment, i.e. which parameters/indicators should be used”.

General recommendations on providing evaluations for the HOLAS III D3 assessment

1. The Workshop recommend that both fishing mortality (F) and spawning stock biomass (SSB) should be assessed for each stock, and if possible size/age structure, and alternative indicators should be used if F and SSB are not available (re: [Commission decision \(EU\) 2017/848](#), see *Specifications and standardized methods for monitoring and assessment* section under MSFD D3).
2. ICES assessment results are the primary source of input for the assessment of commercial fish in HOLAS III.
3. When ICES assessment results and data are not available according to the needs of HOLAS III then HELCOM should clarify from ICES if such data, indicators or additional analyses can be provided and, if so, in what time frame. If it can not be provided by ICES within the required time frame of HOLAS III, then HELCOM should initiate a process to apply suitable evaluations for the purposes of HOLAS III.

Recommendations on the assessment of “healthy size and age structure”

1. The assessment should be based on quantitative indicators that can provide guidance to management, either directly or indirectly.

Directly: for example reflecting selectivity in the fisheries.

Indirectly: for example changes in natural mortality, growth or recruitment that may need responses in target setting.

2. A suite of indicators/metrics would be needed to ensure a healthy stock over all parts of the size spectrum. An indicative but not exclusive list of indicators, grouped per type is provided below (i.e., grouped under broader categories):

Age structure

- Mean age in the catch

Size structure – focusing on large individuals

- 95th (or 90th) percentile of the fish-length distribution
- Should be designed so that it is insensitive to high recruitments

Recruitment success

- Potential examples: smolt productivity, L10

Selectivity/size structure in the fisheries catches

- Mean length of the catch, length of first capture, selectivity for juvenile fish

Other evaluators of changes in condition

- Mean weight at age

Genetic changes

- Mean length/age at maturity

3. Although applying the same indicators/metrics for different stocks, as far as possible, is advisable in the long term, data availability is expected to be a constraint for the evaluation of some stocks, and different indicators could prove to be optimal for different stocks.

Task 3: Recommend appropriate approaches for the integration of indicator results per species/stock and across the assessment period, respectively

This section contains the recommendation from ComFish WS 1-2021 to STATE & CONSERVATION 15-2021 related to the task 3 “Recommend appropriate approaches for the integration of indicator results per species/stock and across the assessment period, respectively”.

Integration of assessment results

1. The Workshop recommends that one-out-all-out should be used across criteria for assessing overall status of a stock, as this was followed in HOLAS II, noting that it is reasonable to use the same approach as was applied in HOLAS II for the sake of comparability.
2. The overall status of a stock can only be given if data on at least both F and SSB (or their proxies) are available, and the overall status should also reflect results for age/size/condition aspects (i.e. MSFD D3C3). The specifics of an approach (building on options presented at ComFish WS 1-2021) for how to include evaluation results for D3C3 in this integration, under the understanding that HELCOM-agreed threshold values are not foreseen within the time frame of HOLAS III, could be further evaluated in connection with a proposed follow-up workshop (see below).
3. The assessment results should reflect data for the whole assessment period of six years (2016-2021), using the average result for all six years. Averaging is the most reasonable approach considering the properties of the underlying assessment data, including the fact that the assessment values have strong interannual variability. Especially for components such as age/size/productivity (e.g. D3C3), an assessment over only one year would not make interpretation of the results appropriate.
4. The Workshop recommended that data is included in the BEAT tool using the same approach as was applied in HOLAS II, but that the information on confidence is reassessed in relation to the new data (though using the template for the BEAT tool), and that information on confidence in the underlying model/assessment structure is incorporated in this.

Other issues raised with relevance to, or requiring guidance from State & Conservation

This section contains other issues raised by ComFish WS 1-2021 with relevance, or requiring guidance to further work on the Status Assessment of Commercial Fish.

1. Discussion on how to best estimate the biomass capable of producing MSY. Suggestions included: MSY B trigger, BMSY or suitable proxies when applying threshold values (i.e. under MSFD D3C2). The WS noted that there is an upcoming ICES meeting series that may also address this issue and it was proposed that potentially adopting any changes should wait on developments under ICES WKREF (two meetings planned 2-4 November 2021 and 11-13 January 2022). It was considered important to inform State and Conservation that threshold value setting/application may be different from HOLAS II for this component if improvement proposed by ICES is the result of their ongoing advice process. It was also noted that it would be relevant to feed the outcomes of this process into next proposed HELCOM ComFish WS 2-(2022) with a view to providing a further progress update to the spring State and Conservation meeting in 2022.
2. Kattegat area in HOLAS III. Clarify from State and Conservation if the Kattegat area should be included in the HOLAS III assessment of commercial fish, based on agreed D3 list, or if the assessment of commercial fish should be applied only on the ICES definition of the Baltic Sea ecoregion (thus exclude Kattegat area).
3. Request for State and Conservation to endorse sending a message to ICES. The Workshop discussed that there are other data and assessment components underway or developed in ICES that could support work towards HOLAS III. The proposal was made to send a general message to ICES, in particular associated with ongoing work in ICES taking place in late 2021/early 2022, to encourage that as much information, assessment output and data related to MSFD D3 (especially D3C3) is available to support HOLAS III.

Aspect such as these deemed potentially relevant: To accommodate exploration of D3C3 indicators, HELCOM could ask ICES to provide a new section "Age/size structure" in Advice documents, with indication of e.g. mean age/length in the catch, age/length at 50% and 90% first maturity, optimum length / age, 95th length percentile. Information related to recruitment success/failure also relevant. A length/age frequency histogram with indication of above reference points would also be useful. The this is to support the application of the indicators/metrics listed above.

The relationship of this to the proposed follow up workshop was also noted.

4. The link between the assessment of biodiversity and commercial fish (e.g. MSFD D1 and D3). The Workshop noted that certain species may be addressed under D1 and D3 based on the proposed list, e.g. flounder and perch (possibly also whitefish, pike-perch, pike), addressed under coastal fish monitoring. The Workshop considered that it was most appropriate to ask input from State and Conservation on how to approach this since under the MSFD the assessment of commercial fish (i.e. D3) is to be used under D1. The question remained open as to if this should be exclusive (i.e. only D3 can be used under D1 for commercial fish) or if D1 assessments of the same species can also include additional aspects of relevance for D1. It was noted that this issue may possibly also be relevant to reflect under the EU Art. 8 guidance that is currently being developed.

Follow up and resources

1. Second HELCOM ComFish WS proposed. The Workshop proposed that a follow up to this constructive process would be relevant and proposed that a second HELCOM workshop should be held, likely sandwiched between the end of the ICES processes described above (i.e. January 2022) and State and Conservation (9-13 May 2022) – with a view to providing further input to State and Conservation

16-2022. It was proposed that the focus would be on applying a test case in relevant stocks that runs through the entire approach and looks at catch and biomass components (D3C1 and C2) and also adds on suitable age/size/productivity aspects (e.g. MSFD D3C3). This would also test and finalise suitable integration and confidence assessment approaches already outlined in the current process.

It was noted that in addition to the actual workshop, a preparatory phase would be critical, for example to ensure data preparation, and that the workshop would focus on the evaluation and review of data/results. Expert knowledge on the relevant ICES data is needed to achieve relevant temporal data coverage and facilitate the preparatory steps.

2. Resource related issues. The Workshop considered that no new proposals related to data collection or monitoring were relevant at this point. Thus, resource issues include: a) the proposed second WS, including preparatory aspects data handling and running of pilot assessment, and b) expert time/resources to apply this assessment in HOLAS III itself.