



Document title	Assessment of pelagic habitats
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Category	DEC
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Background

The HOLAS III assessment follows a structure which aims to ensure robust results and traceability across the several steps which are integral to a usable holistic approach. Each of the steps of the process represents a progressively more integrated assessment result, eventually culminating in the holistic assessment report State of the Baltic Sea (see Figure 1 for a conceptual overview). This document presents the plan for assessment of pelagic habitats, which builds on the relevant indicator reports and in turn constitutes a chapter in the Thematic assessment report on Biodiversity (red highlight in Figure 1 indicates which step in the process is addressed by the content of this document).

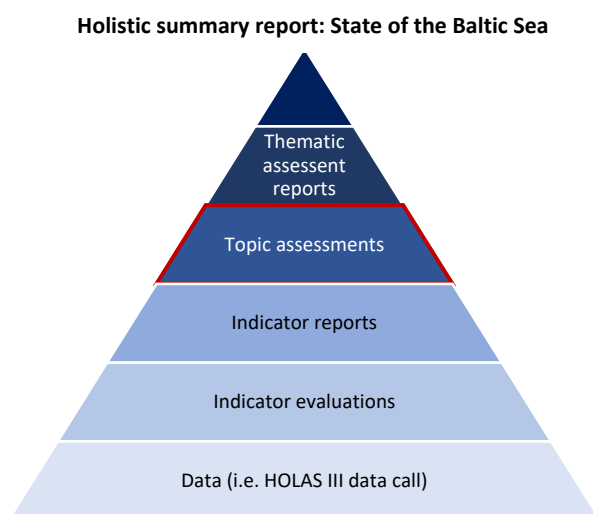


Figure 1. Conceptual overview of the HOLAS III assessment structure and the progressive integration of results.

This document outlines the planned assessment of pelagic habitats for HOLAS III. The following three major components are described below:

- 1) the progress made/anticipated on the Zooplankton Mean Size and Total Stock and the Seasonal Succession of Dominating Phytoplankton Groups HELCOM indicators,
- 2) the planned integration of these to address pelagic habitats using the BEAT biodiversity integrated assessment tool, and
- 3) further development and testing of a unified pelagic habitats assessment approach with the aim of having test cases to include in the HOLAS III Thematic Assessment of biodiversity section on pelagic habitats.

The overview considers how the separate components are compiled and combined and represent the assessment of pelagic habitats in HOLAS III, for example how the indicator evaluations form the basis of the indicator reports, which, supported by scientific contextual information assess a topic (Topic Assessment) that is then included in a Thematic assessment (e.g. Biodiversity). The below structure outlines the general flow of information within this process and the segments coloured in green are the aspects touched on in this document. The formation of the topic assessment, within the biodiversity thematic assessment will require expert input.

Several aspects on this proposal are addressed in other documents to this meeting in greater detail, and this document summarises these issues and links to the more detailed information provided elsewhere.

The bulk of information originates from the HELCOM Workshop on Pelagic Habitats ([PELAGIC WS 1-2021](#)) and the outcomes of that workshop where the specific plans for HOLAS III and longer-term possibilities were discussed and documented. At the Workshop the process to follow up on progress and encourage developments towards HOLAS III and beyond was raised and it was proposed that a follow up workshop should be arranged for this purpose (potentially for January 2022) ([PELAGIC WS 1-2021, Outcomes paragraphs 7.1-7.3](#)).

Action requested

The Meeting is invited to:

- consider and endorse the proposed approach for assessing the state of pelagic habitats in the HOLAS III assessment as indicated in the corresponding document;
- to support the proposal for a follow up workshop between HELCOM BLUES and OSPAR NEA PANACEA, with regional experts invited.

The Assessment of pelagic habitats for HOLAS III

1) Progress made/anticipated on the Zooplankton Mean Size and Total Stock and the Seasonal Succession of Dominating Phytoplankton Groups HELCOM indicators

The work underway at the pelagic habitats workshop on the further development of the Zooplankton Mean Size and Total Stock and the Seasonal Succession of Dominating Phytoplankton Groups HELCOM indicators is summarized in [Annex 4 of the workshop outcomes](#).

The progress made to date is the subject of documents 3J-20 and 3J-21 to this meeting, and is also addressed under 3J-48.

The figure 2 aims to summarise the approach, though the component parts may also be influenced by decisions made on these individual parts, (as represented in the documents addressing those specific component parts).

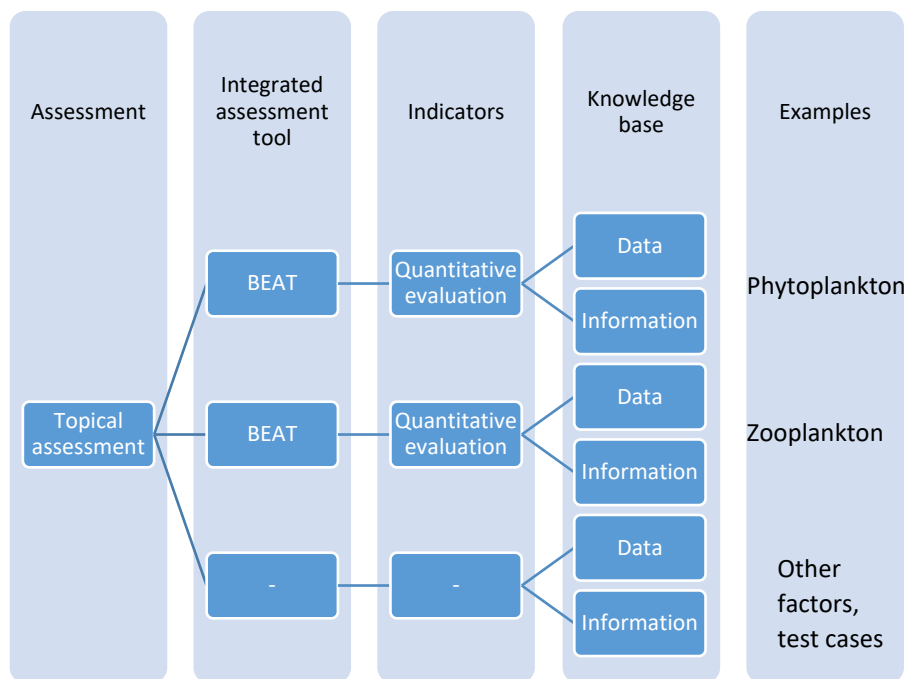


Figure 2. Process and component parts of assembling a topic assessment under HOLAS III

2) Planned integration of pelagic habitats indicators using the BEAT biodiversity integrated assessment tool

The regional assessment of pelagic habitats using the BEAT biodiversity integrated assessment tool was the subject of discussion at the pelagic habitats workshop ([PELAGIC WS 1-2021](#)), within the HELCOM BLUES project pelagic habitats team (that also includes the leads on the two existing HELCOM indicators), and also at the recent BEAT HELCOM Workshop ([BEAT WS 1-2021](#)). Based on further guidance from the pelagic habitats indicator leads, via the HELCOM BLUES project, a proposal for the application of BEAT to address pelagic habitats is included in document 3J-48 to this meeting.

3) Plans for HOLAS III (as set out in [PELAGIC WS 1-2021 Outcomes Annex 2 and further developed during BEAT WS 1-2021](#))

The following developments were identified as viable for HOLAS III.

- 1) Increased spatial coverage of the Zooplankton Mean Size and Total Stock (MSTS) indicator.

- 2) Increased spatial coverage of the Seasonal Succession of dominating phytoplankton groups indicator.
- 3) Integration of the above two indicators via BEAT (HELCOM Biodiversity integrated assessment tool).
- 4) Reflection of the relevant eutrophication parameters: Chlorophyll-a, water clarity, and cyanobacterial bloom index.

The possibility for different integration approaches for the assessment of pelagic habitat, e.g. integration of biodiversity indicators separately or in combination with eutrophication parameters and with different weightings, were discussed at the [BEAT WS 1-2021](#), as presented in [presentation 3](#). In a follow up meeting of the BLUES project task team on pelagic habitat (including pelagic indicator leads) further refinement was proposed, as reflected in the BEAT document presented to this meeting (document 3J-48).

Possible test cases for HOLAS III

The 'paired approach' utilised in OSPAR, as presented via the NEA PANACEA project, was identified as having strong potential in the Baltic Sea region. It was however noted that specific adjustments to incorporate regional specificities (e.g. appropriate 'pairing' of species/species groups) would likely be needed. Test cases were discussed, defined here as testing of viable methodologies on sub-units or smaller areas where data is available to evaluate the possibility to assess pelagic habitats, with the potential for these examples to be included in the thematic assessments of HOLAS III.

The following test cases were identified as possible for HOLAS III:

- 1) A test case of the OSPAR 'paired approach' in the Kattegat/Skagerrak region.
- 2) A test case to compare the cyanobacterial bloom index to the Zooplankton Mean Size and Total Stock (MSTS) indicator. This would have the focus of identifying the link between eutrophication and zooplankton (the latter being a key food web resource), and thus identifying a potential link between pressures and pelagic habitats.

Further test cases may be possible however an overview of data to assess the appropriate areas and the potential scales of the test cases would be critical. This issue is addressed in [Annex 3 of the Outcome](#).