



## Baltic Marine Environment Protection Commission

Working Group on the State of the Environment and Nature  
Conservation

STATE & CONSERVATION  
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<b>Document title</b>	Reporting of supporting parameters to COMBINE
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<b>Category</b>	CMNT (LATE)
<b>Agenda Item</b>	3MA– Environmental monitoring and data
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### Background

According to the COMBINE Manual temperature and salinity are core variables and as outlined in the [HELCOM Monitoring manual](#), salinity and temperature should always be measured as supporting parameters when measuring nutrients and chlorophyll-a in the water column.

It was noted in the [IN-EUTROPHICATION 2-2016](#) meeting by the ICES Data Center that some data submissions from HELCOM Contracting parties did not contain the supporting parameters temperature and salinity. It was noted by the meeting that it is important to always report the full CTD profile containing supporting parameters to be able to check for water column instabilities which is important in the quality control process of other parameters like nutrients and chlorophyll-a. In addition, temperature and salinity are of vital importance for calculating the oxygen debt indicator.

### Action requested

The Meeting is invited to:

- take note of issue of the issue of missing full CTD profiles with data submissions
- agree that supporting parameters and full CTD profiles should always be included in the data submissions to COMBINE and relevant guidelines should be updated accordingly.

## Reporting of supporting parameters to COMBINE

### Introduction

According to the COMBINE Manual temperature and salinity are core variables and as outlined in the [HELCOM Monitoring manual](#), salinity and temperature should always be measured as supporting parameters when measuring nutrients and chlorophyll-a in the water column and thus should be reported to COMBINE. Full CTD profile containing these supporting parameters is essential when checking for water column instabilities in the quality control process. The supporting parameters are also crucial for the oxygen debt indicator which is based on accurate determination of water stratification.

### Reporting status of temperature and salinity to COMBINE as discussed in IN EUTROPHICATION 2-2016 meeting

It was noted in the [IN-EUTROPHICATION 2-2016](#) meeting in 19 March 2016 by the ICES Data Center that some data submissions from HELCOM Contracting parties did not contain the supporting parameters, temperature and salinity. It was noted by the meeting that it is important to always report the full CTD profile containing the supporting parameters to be able to check for water column instabilities in the quality control process of other parameters like nutrients and chlorophyll a.

### Reporting of supporting parameters in relevant guidelines

The IN-EUTROPHICATION 2-2016 meeting noted the importance of reporting the supporting parameters, temperature and salinity and that this should be emphasized into the reporting QA/QC guidance guideline in [HELCOM Eutrophication Assessment Manual](#) developed by EUTRO OPER project. The Annex 3A of the Eutrophication assessment manual contains [ICES Guidelines for Discrete Water Sample Data](#). The responsible ICES working group for the ICES Data Guidelines ([Data and Information Group, DIG](#)) will be informed by the ICES Data Center on the need to update the guideline to reflect the requirement of reporting full CTD profiles when discrete water samples are reported.