Regional Sea Convention perspective on biodiversity data reporting and MSFD data harmonisation

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Content

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1. Related HELCOM work

- Policy setting: RSC assessments to be utilized in MSFD reporting
- RSC assessments: Quality status reports, Holistic assessments
- HELCOM Assessment:
  - Key component is **Core indicator** (51 of those, grouped per theme)
  - Definition of core indicator:
    - 1. Definition of indicator to assess status of marine environment e.g. “Seal health status”
    - 2. Definition of spatial scale of core indicator (5 scales applied currently, HELCOM Assessment Units))
    - 3. Definition of threshold value(s) (uniform or per assessment unit)
    - 4. Monitoring guideline to be defined, agreed and implemented by Contracting Parties (What to monitor and how comparable data available that can be reported!)
    - 5. Data format to be defined: Based on existing standards, if possible, extended, if (when) needed, e.g. “Blubber thickness of seal (mm)”
    - 6. Implementation of monitoring -> data repoting -> time series
    - 7. Assessments can be performed
- https://indicators.helcom.fi/

1. Related HELCOM work

- Monitoring:
  - well-established functior
    Monitoring of physical, c
    biological variables of the
    started already in 1979 a
    inputs of nutrients and h
    was initiated in 1998. Toc
    agreed HELCOM monitor
    covering sources and inp
    pressures and various va
    state of the environment
- Monitoring guidelines:
  - https://helcom.fi/action-areas/monitoring-and-assessment/monitoring-guidelines/

2.3.3.4.2 Biovolume calculation

As specified above, during the counting process, the species (individuals) have to be allocated to size classes according to the scheme of Olenina et al. (2006) and its updated appendix (available at ICES website: https://www.ices.dk/data/Documents/ENV/PEG_BVOL.zip). The individual biovolumes of the different counting units have to be multiplied with their abundance to get the biovolume per dm^3.

Biovolume $_{taxon}$ [mm^3 dm^{-3}] = abundance [dm^{-3}] x VCU x 10^{-9}

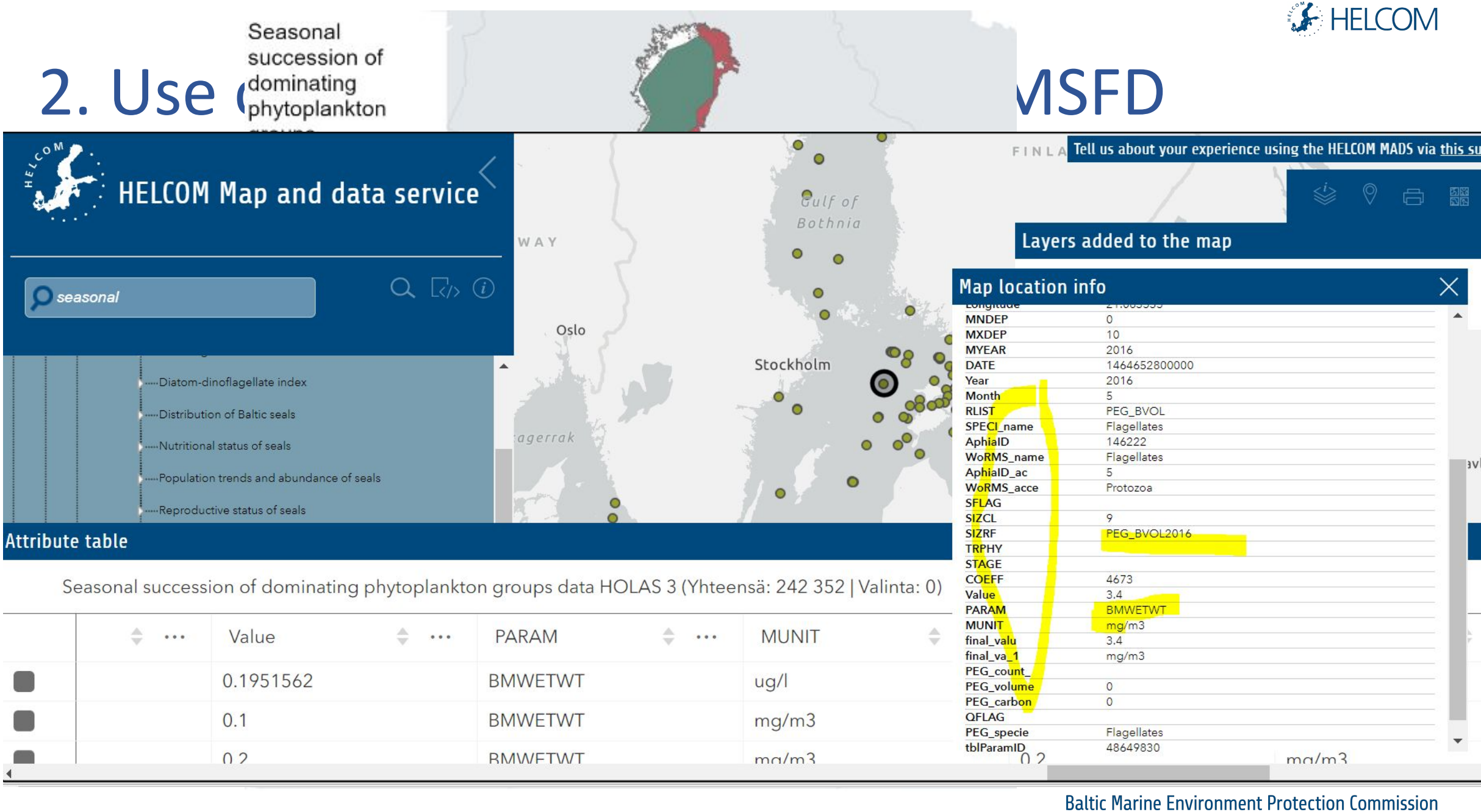
VCU = volume of counting unit (in μm^3)

From the biovolume data, the biomass (wet weight) is simply derived by a rough assumption of a plasma density of 1 g cm^{-3}, as follows (EN 16695):

1 mm^3 l^{-1} (biovolume) = 1 cm^3 m^{-3} (biovolume) = 1 mg l^{-1} (wet weight):

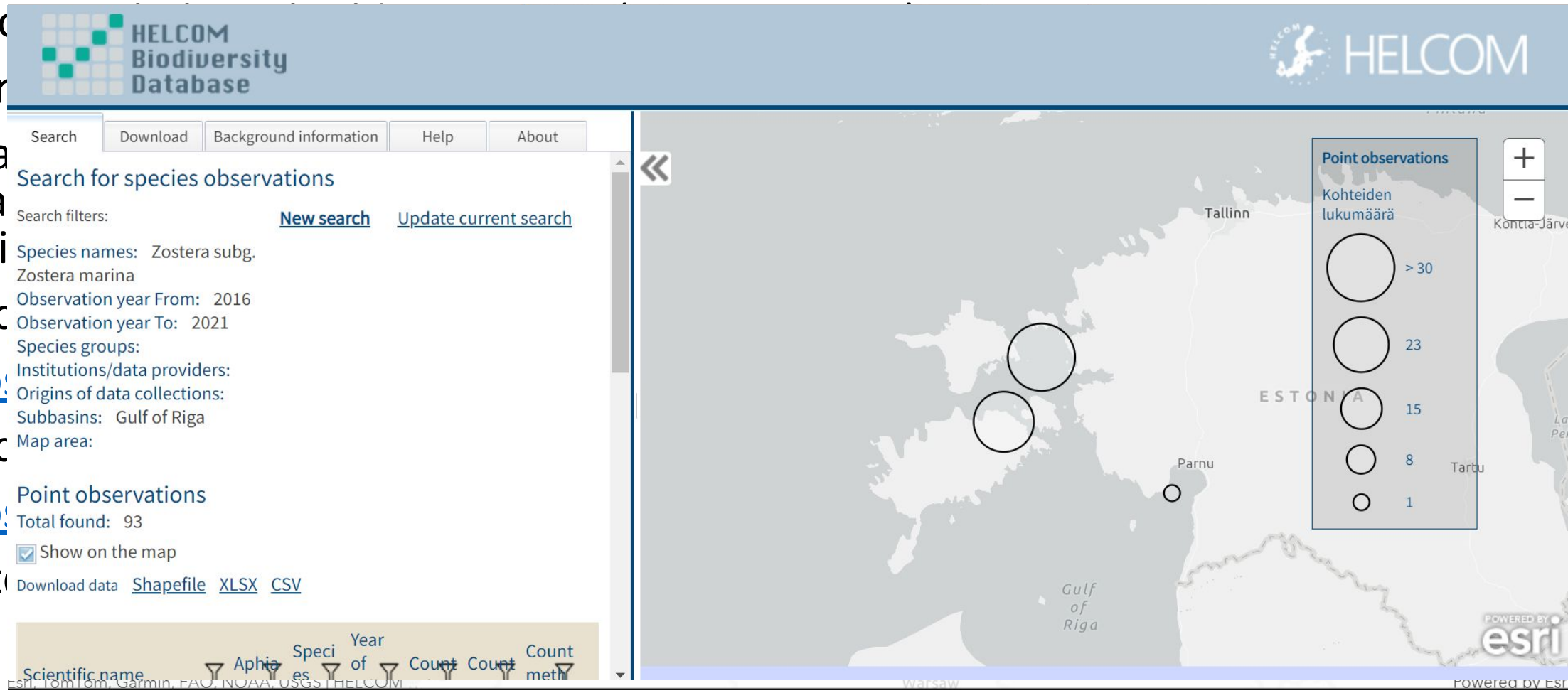
1 mm^3 m^{-3} (biovolume) = 10^6 μm^3 l^{-1} (biovolume) = 1 μg l^{-1} (wet weight)

2. Use of MSFD


Seasonal succession of dominating phytoplankton
HELCOM Map and data service
seasonal
Diatom-dinoflagellate index
Distribution of Baltic seals
Nutritional status of seals
Population trends and abundance of seals
Reproductive status of seals
Gulf of Bothnia
Oslo
Stockholm
Tell us about your experience using the HELCOM MADS via this su
Layers added to the map
Map location info
MNDEP 0
MXDEP 10
MYEAR 2016
DATE 1464652800000
Year 2016
Month 5
RLIST PEG_BVOL
SPECI_name Flagellates
AphiaID 146222
WoRMS_name Flagellates
AphiaID_ac 5
WoRMS_acce Protozoa
SFLAG
SIZCL 9
SIZRF PEG_BVOL2016
TRPHY
STAGE
COEFF 4673
Value 3.4
PARAM BMWETWT
MUNIT mg/m3
final_valu 3.4
final_va_1 mg/m3
PEG_count_
PEG_volume 0
PEG_carbon 0
QFLAG
PEG_specie Flagellates
tblParamID 48649830
Attribute table
Seasonal succession of dominating phytoplankton groups data HOLAS 3 (Yhteensä: 242 352 | Valinta: 0)
Value PARAM MUNIT
0.1951562 BMWETWT ug/l
0.1 BMWETWT mg/m3

3. Use case: Zostera

- Impo
- Ther
- Data data Balti
- Spec
- http
- Spec
- http
- Zost



4. Consideration for better data flows

- The Need (Use case) should define the data flow
  - What is the data needed for?
    - Attributes?
  - How often should it be updated/reported?
    - Reporting/data flows
- HELCOM Data policy is open
  - Data can be reused/shared (CC-BY)
  - Can be utilized for any purposes
- HELCOM WG Biodiv deals with biodiversity monitoring and data related issues
  - 2 meetings per year. Potential presentation / ideas for alignment/harmonization?

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Thank you!