

Type of Sampling Data

Vertical profiling data of CTD-water-sampler on position SB_POG during EDoM'18 measurement campaign

Contact

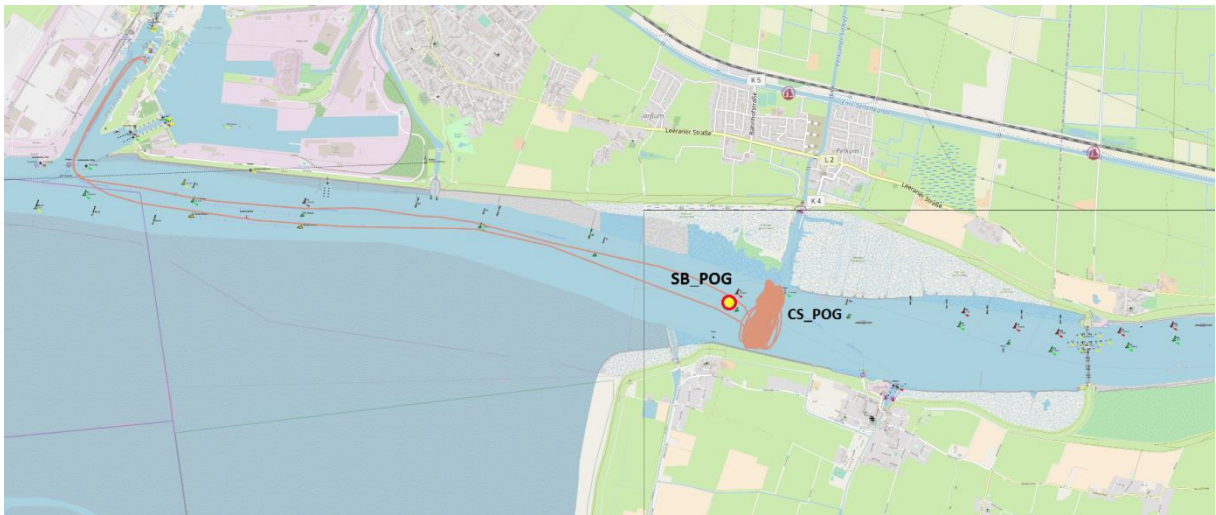
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Location



Position SB_POG, WGS84 approx. 53.32420 °(N) 7.25942 °(E)

Time / Date

28th August 2018 between 07:09 and 21 :30 CET

Instrument setup

CTD-Water-Sampler

Parameter	Instrument	S/N
Temperature Conductivity	Sea-Bird Electronics SBE19plusV2	7245
Pressure	Sea-Bird Electronics SBE19P	7938
Turbidity Chlorophyll CDOM	Turner Designs Scufa	0773
Altimeter	Benthos PSA916	4711

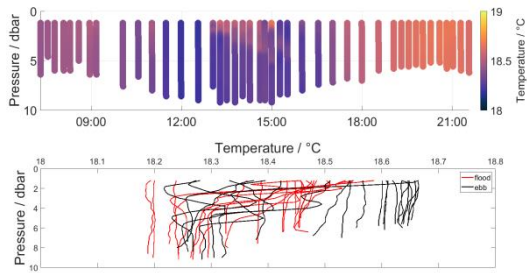


CTD-Water-Sampler

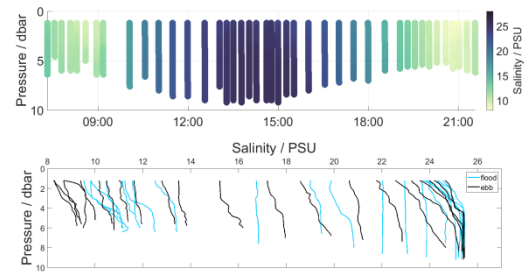
Measurements

In total 42 vertical CTD-profiles were taken during the EDoM'18 measurement campaign. The time interval between the CTD-measurements was 30 minutes and 15 minutes around slack water.

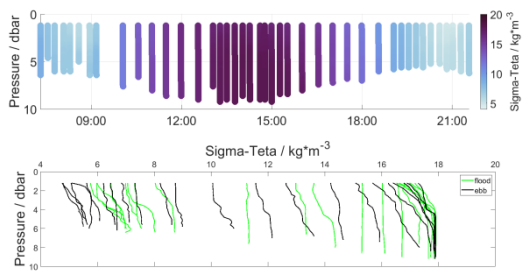
In total 28 water samples from the water surface (0,8 m) and bottom (1,5 m above) were taken.



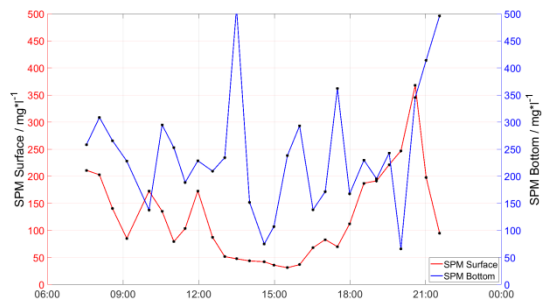
Temperature



Salinity



Density



SPM (Suspended Particulate Matter)

Data Processing of CTD measurements

1. SBE-Data Processing Software Version 7.26.7

1.1 Data Conversion: Convert raw data (.hex) to converted data (.cnv)

→ Output variables:

1. Julian Days
2. Latitude (deg)
3. Longitude (deg)
4. Pressure (dbar)
5. Depth (m)
6. Temperature (ITS-90, °C)
7. Conductivity (mS/cm)
8. Salinity (PSU)
9. Density (Sigma-Theta, kg/m ³)
10. Oxygen Saturation, Weiss (mg/l)

→ Output format: ASCII (.cnv file)

→ Only data from **downcast** profiles were converted

1.2. LoopEdit: Marks value in data-matrix with bad flag if the pressure of the vertical profile slowdowns or reversals.

→ Minimum CTD-velocity 0.05 m/s

→ Minimum soak depth: 1.0 m

→ Maximum soak depth: 20

2. Matlab Processing Tool

2.1. Clear Data-Matrix: Delete data with bad flag

2.2. Calculating mean values and standard derivation: Averaging every **20 cm**

2.3. Create Final Data-Matrix: Output format .txt

→ Output variables:

1. Year	10. Std. Mean Temperature (°C)
2. Month	11. Mean Conductivity (mS/cm)
3. Day	12. Std. Mean Conductivity (mS/cm)
4. Hour	13. Mean Salinity (PSU)
5. Minute	14. Std. Mean Salinity (PSU)
6. Second	15. Mean Density (Sigma-Theta, kg/m ³)
7. Latitude (°) / WGS84	16. Std. Mean Density (Sigma-Theta, kg/m ³)
8. Longitude (°)/ WGS84	17. Mean Oxygen Saturation, Weiss (mg/l)
9. Mean Temperature (°C)	18. Std. Mean Oxygen Saturation, Weiss (mg/l)

Storage of Data Files

Name:

Edom2018_CTD_SBE_ZE1808_3_xx

Location:

0:/2018_August/01_Campaign/SB_POG_ICBM/CTD_Zephyr_ICBM/processed/