

## ANNUAL REPORT ON GEOTRACES ACTIVITIES IN POLAND

April 1st, 2020 to April 30th, 2021

### *New GEOTRACES or GEOTRACES relevant scientific results*

- The monitoring of the trace metals (Cr, Mn, Co, Ni, Cu, Zn, Cd, Pb) delivery via Vistula river, southern Baltic Sea. Samples are collected from the bridge in Kiezmark (Figure 1).
- The monitoring of the seasonal changes of concentrations of the trace metals (Cr, Mn, Co, Ni, Cu, Zn, Cd, Pb) in the surface seawater, of the Gulf of Gdańsk, southern Baltic Sea. Samples are collected from the pier in Sopot (Figure 1).



*Figure 1. Sampling sites.*

- The measurement of Fe and Mn return fluxes from the Baltic Depths (Gotland Deep, Gdańsk Deep, and Bornholm Deep) within the DiSeDOM project.

### *GEOTRACES or GEOTRACES relevant cruises*

- 4 research cruises were organized in order to measure Fe and Mn return fluxes by r/v OCEANIA the property of the Institute of Oceanology Polish Academy of Sciences.

### *New projects and/or funding*

- ArcticSGD - SUBMARINE GROUNDWATER DISCHARGE IN A CHANGING ARCTIC REGION: SCALE AND BIOGEOCHEMICAL IMPACT, 2020-2023, ( Beata Szymczycha – Principal Investigator, The Institute of Oceanology Polish Academy of Sciences;). Arctic SGD is a Polish-Norwegian project which aims to investigate SGD (submarine groundwater discharge) around Svalbard and northern Norway. The knowledge gained from the study will provide baseline information on the environmental impact of SGD, which is crucial for predictions in a changing Arctic.

<http://arcticsgd.iopan.pl/en/home>

- ASSEMBLE PLUS project. Prof. Dr. Michael E. Böttcher, MSc. Catia Milene Ehlert and Dr. Beata Szymczycha working on the SGD in the Bay of Puck, southern Baltic Sea.
- DiSeDOM - Estimation of diffusion coefficient of dissolved organic matter from sediments to overlying waters through relationships between its optical and chromatographic characteristics and dissolved iron in Baltic Sea deeps, 2020-2023 (Piotr Kowalczyk – Principal Investigator, The Institute of Oceanology Polish Academy of Sciences).

***GEOTRACES workshops and meetings organized***

- ArcticSGD kick-off meeting (23.11.2020- 24.11.2020) (1 PhD- student).

***Outreach activities conducted***

- ArcticSGD newsletter <https://mailchi.mp/049c4ba3301b/arcticsgd-project-newsletter-no01>

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