

ANNUAL REPORT ON GEOTRACES ACTIVITIES IN POLAND

April 1st, 2019 to March 31st, 2020

New GEOTRACES or GEOTRACES relevant scientific results

- Mercury:
Investigation of the impact of hydrotechnical works within the riverbed and riparian zone on the mobility of mercury in soil and its outflow to the river and the sea. Hg transformations in were mostly controlled by inflow of fresh organic matter in soil and sediments as well as by oxidation-reduction potential. In reducing conditions mercury were released from the soil and incorporated into the sediment, in sediments characterized with high redox potential (oxidizing conditions) Hg were released from the soil in dissolved form and was transported downstream from where it could reach the sea (Saniewska et al., 2019).

GEOTRACES or GEOTRACES relevant cruises

- 09-21.05.2019 *r/v OCEANIA*, pore water and water column samples for Fe collected in the Baltic Proper and The Gulf of Gdańsk
- 03-15.10.2019 *r/v OCEANIA*, SGD samples for trace metals, Radon and Radium isotopes collected in the Bay of Puck
- 3-12.03.2020 *r/v OCEANIA*, pore water and water column samples for Fe collected in the Baltic Proper and The Gulf of Gdańsk

New projects and/or funding

- DAIMON <https://www.daimonproject.com/>
- ARCTIC-SGD

New GEOTRACES publications (published or in press)

- Beldowski, Jacek & Szubska, Marta & Siedlewicz, Grzegorz & Korejwo, Ewa & Grabowski, Miłosz & Beldowska, Magdalena & Kwasigroch, Urszula & Fabisiak, Jacek & Łońska, Edyta & Szala, Mateusz & Pempkowiak, Janusz. (2019). Sea-dumped ammunition as a possible source of mercury to the Baltic Sea sediments. *Science of The Total Environment*. 674. 10.1016/j.scitotenv.2019.04.058.
- Saniewska, Dominika & Gębka, Karolina & Beldowska, Magdalena & Siedlewicz, Grzegorz & Beldowski, Jacek & Wilman, Bartłomiej. (2019). Impact of hydrotechnical works on outflow of mercury from the riparian zone to a river and input to the sea. *Marine Pollution Bulletin*. 142. 361-376. 10.1016/j.marpolbul.2019.03.059.

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