

ANNUAL REPORT ON GEOTRACES ACTIVITIES IN NORWAY

May 1st, 2016 to April 30th, 2017

New projects and/or funding

- Dr. Murat Ardelan at the Department of Chemistry at the Norwegian University of Science and Technology (NTNU) is participating in the Nansen LEGACY (<http://site.uit.no/nansenlegacy/>) a multidisciplinary initiative (project budget ca. 800 million NOK.) to understand and predict the natural and human influences on the Barents Sea ecosystem beyond the present ice edge. Dr. Ardelan will study the trace metal & DOM interactions in the Barents sea.
- A new collaborative PhD. Study on the uptake of Fe by cyanobacteria between the Departments of Chemistry (Dr. Murat Ardelan) and biotechnology at the Norwegian University of Science and Technology (NTNU) has been initiated.

PhD theses

- Nicolas Sanchez will defend his PhD on *Biogeochemistry of Iron in the Patagonia Fjords and Waters around Antarctic Peninsula* in July 2017 at the Department of Chemistry at the Norwegian University of Science and Technology (NTNU), mentored by Dr. Murat Ardelan.

Other activities

- Dr. Phillip Wallhead and colleagues at the Biogeochemistry group at The Norwegian Institute for Water Research (NIVA) are developing a ROMS-FABM-ERSEM (Regional Ocean Modeling System- Framework for Aquatic Biogeochemical Model European Regional Seas Ecosystem Model) for the pan-Arctic domain at 20 km resolution. A model hindcast for 1980-2014 is due to be delivered at the end of May 2017 (for the EU H2020 TAPAS project). Although they will not model dissolved Fe in this particular run, ERSEM has flexible elemental stoichiometry and can be used to model dissolved Fe.
- Wallhead et al. have also previously used SINMOD biogeochemical model to investigate climate change and acidification of the sea floor in the Arctic Ocean and Nordic Seas. They have submitted a publication to JGR Oceans with title: *Bottom water acidification and warming on the Eurasian Arctic Shelves: Dynamical downscaling projections.*

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