

## Sweden

### **Meetings**

- Per Andersson participated and presented GEOTRACES in the following meetings:
  - Arctic Council Meeting hosted at The Swedish Museum of Natural History during 28 to 30 March, 2012. Presented Arctic GEOTRACES and results from ISSS-08 (International Siberian Shelf Study 2008) as poster during the meeting.
  - Arctic GEOTRACES Planning workshop in Vancouver, Canada, 2 to 4 May, 2013. Presented and discussed Swedish Arctic planning.
  - Arctic GEOTRACES workshop in Moscow, 27 to 29 November, 2012. Presented and discussed Swedish GEOTRACES Arctic plans.
- David Turner participated in the workshop “Voltammetry and GEOTRACES”, Sibenik, Croatia, 6-9 October 2012

### **New funding (Per Andersson)**

- “Particle transport derived from isotope tracers and its impact on ocean biogeochemistry: a GEOTRACES project in the Arctic Ocean”. A joint French-Swedish project to study particle transport in the Arctic Ocean. This is a three year grant, including two PhD-students, with about 112 k€ for each institution. The funding starts during 2013.

### **GEOTRACES intercalibration work**

- Per Andersson participated in the GEOTRACES intercalibration committee work. Hosted the GEOTRACES intercalibration meeting in Stockholm from 1 to 3 May, 2013.

### **Related projects**

- Per Andersson: “Climate warming in Siberian Permafrost Regions; tracing the delivery of carbon and trace metals to the Arctic Ocean”. Field work in the Lena River and tributaries during 2012-2013, total six weeks. The main objective is to study a large basin dominated by permafrost and the impact of changing temperatures on the delivery of TEI to the Arctic Ocean.
- David Turner: Two new projects that will provide a platform for chemical speciation modelling relevant to GEOTRACES:
  - OCEAN CERTAIN: **O**cean Food web Patrol – **C**limate **E**ffects: **R**educing **T**argeted **U**ncertainties with an **I**ntegrated **N**etwork. This is a large EU-FP7 project (10 M€; 2014 – 2017) led by NTNU (Trondheim, Norway) focusing on the effect of multi-stressors on marine biogeochemical cycles. I will contribute with chemical speciation modelling of key trace metals including interactions with natural organic ligands (ca. 300 k€).
  - Commercial shipping as a source of acidification in the Baltic Sea (Swedish funding, ca. 850 k€ in total, 2013 - 2016; ca. 200 k€ for development of chemical speciation modelling).

### **Forward look: Icebreaker Oden in the Arctic Ocean 2015**

- Oden is “booked” for GEOTRACES in 2015, but the Swedish Polar Research Secretariat does not have funds for more than 15 days, enough for a return trip to Svalbard. GEOTRACES needs an additional 20 days at 50 k€ per day, 1 M€ in total. Approaches to the major Swedish funding agencies have thus far drawn a blank. Financial support from

outside Sweden will be needed to ensure that GEOTRACES can make use of Oden in 2015.

Submitted by: David Turner.