

Overview

The GEOTRACES Brazil meeting was held in Santos, São Paulo in March 2015 to foster the involvement of Brazilian Scientists in the GEOTRACES programme. The specific objectives of this meeting were:

- i. Promote a broad discussion on the infrastructure demands (laboratory and research vessels), training and tools to implement the study of trace elements in ocean waters by the Brazilian research community;
- ii. Promote and improve the quality of scientific production in chemical oceanography, especially focused on the study of TEIs in the oceans;
- iii. Initiate a GEOTRACES BRAZIL collaboration network;
- iv. Identify opportunities for technology transfer, training and international collaborations to increase the capacity of Brazilian scientists to undertake GEOTRACES-related research.

Final Statement

Participants at the meeting agreed a final statement outlining the main actions to be undertaken by the GEOTRACES BRAZIL collaboration network.

National representatives

The following scientists were designed as the national committee

Vanessa Hatje - Universidade Federal da Bahia

Emmanoel Vieira da Silva Filho - Universidade Federal Fluminense

Monica Wallner Kersanach - Universidade Federal do Rio Grande

Elisabete de Santis Braga – Universidade de São Paulo

Sponsors

- Coordenação de Aperfeiçoamento de Pessoal de Nivel Superior (CAPES)
- Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)

I Workshop GEOTRACES BRASIL – Final Statement

The ocean plays a central role in our earth's climate system and provides a series of important services. The understanding of the biogeochemical processes, in which trace elements and its isotopes (TEIs) are involved, is essential for the assessment of chemical processes and feedbacks associated with human induced perturbations, including anthropogenic release of nutrients, trace metals and climate change. Moreover, the study of TEIs biogeochemistry has direct implications on different fields of research, such as the carbon cycle, climate change, ecology and environmental contamination. The Brazilian coast covers a large extension that interface with the South Atlantic Ocean. It is imminent the more active participation of the Brazilian scientific community on the investigation of TEIs in both oceanic and coastal waters.

The GEOTRACES programme, with currently about 50 completed cruises, aims to develop an understanding of the distribution and cycling of trace elements and isotopes. This programme has been made possible by improved trace metal clean sampling methods and analytical techniques. Despite this and other international cooperation efforts, the understanding of the influence of micronutrients cycles, such as trace elements, in the oceans is still incipient. Additionally, the effects of long term variation in the availability of trace elements in the primary production and export production of organic matter are unknown.

Following the action initiated at the Workshop GEOTRACES Latin America (Rio de Janeiro, November 2012), where it was identified the lack of expertise in the study of trace elements and their isotopes in ocean waters in Latin American countries, and recognizing the need for producing science of high impact on the biogeochemistry of trace elements in the oceans, the I Workshop GEOTRACES Brazil was organized. This meeting, held in Santos / SP between 21-22 March 2015, brought together researchers from 7 Brazilian universities (UFPE, UFBA, UENFE, UFF, USP, UFPR, and FURG) and prominent international researchers associated with GEOTRACES to foster the involvement of Brazilian scientists in the GEOTRACES Programme. The workshop established a national cooperation network in chemical oceanography for the study of TEIs in the ocean. The actions planned by the working group include:

- Training students and researchers in trace metal clean sampling methods and analytical techniques during Summer schools and cruises on board of the R/V Atlântico Sul.

- Application of a joint proposal between National Institutes of Science and Technology (INCTs) of Marine Sciences to conduct an oceanographic cruise (GEOTRACES Section GA09) in the high-productivity area between Cabo Frio and Chuí in order to evaluate the sources and internal processes of TEIs in this region and simultaneously train researchers and students;
- Identification of infrastructure demands for a clean laboratory (clean container) and a clean sampling system (sampling carousel, GO-FLO sampling bottles, CTD unit, winch, A-frame and cables) for the new R/V Vital de Oliveira. This demand will be delivered to Dr. Jailson B. de Andrade SEPED/ Ministry of Science and Technology;
- Proposal of the II GEOTRACES Brazil meeting and a related section during the Brazilian Congress of Oceanography (CBO), to be held in October/2016 in Salvador, Bahia. It is also been planned for this event, plenary talks for GEOTRACES related topics;
- Planning of a national intercalibration exercise to determine the Ra quartet in seawater;
- Formation of the committee GEOTRACES Brazil to be composed of representatives of the various coastal regions of Brazil (Vanessa Hatje; Emmanuel V. Filho, Mônica Wallner-Kersanach and Elisabete Braga).

For more information, please contact Vanessa Hatje (<mailto:vanessahatje@pq.cnpq.br>)