



1st Latin America GEOTRACES Workshop

Rio de Janeiro, 12-15 November, 2012

- NOVEMBER 11, 18:00-20:30h

Welcome Cocktail at PUC-Rio

-NOVEMBER 12

**9:00-9:15 - Opening of the meeting – Angela Wagener and Prof. Silva Mello
(Dean of the Technical and Scientific Center at PUC-Rio)**

Session A - Chairperson: Angela Wagener

**9:15-10:00 - The GEOTRACES Programme: What? Why? When? How? –
Gideon Henderson, University of Oxford**

**10:00-10:45 - Supply and removal of trace elements at ocean boundaries –
Robert Anderson, Lamont-Doherty Earth Observatory.**

10:45-11:15 – Coffee Break

**11:15- 12:00 - Intercalibration, an essential component of the GEOTRACES
Program – Gregory Cutter, Old Dominion University.**

**12:00-12:45 - The US GEOTRACES aerosol and rainwater intercalibration
and sampling program – William Landing, Florida State University.**

12:45-14:00 – Lunch at EMBRAPA

Session B - Chairperson: Gideon Henderson

14:00-14:45 - AMANDES: a multidisciplinary GEOTRACES process study on the Amazon shelf – Catherine Jeandel, CNRS.

14:45-15:30 - Submarine Groundwater Discharge: a potential source of TEIs to the ocean, Jordi Garcia-Orellana, Universitat Autònoma de Barcelona.

15:30-16:00 – Coffee Break

16:00-16:45 - Applications of radium isotopes to studies of coastal ocean mixing and submarine groundwater discharge – Williard Moore, University of South Caroline.

16:45- 17:30 - The US GEOTRACES North Atlantic Transect: lessons learned and initial results - Edward Boyle, Massachusetts Institute of Technology.

17:30-18:15 - The CARIACO Ocean Time-Series and the ANTARES Network: An effort to coordinate a continental-scale observatory of long-term changes in coastal ecosystems of the Americas – Laura Lorenzoni on behalf of Frank Muller-Karger, University of South Florida.

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Session C - Chairperson: Robert Anderson

9:00-9:45 - Redox Conditions and metal transport along eastern boundaries – Jim Moffet, University of Southern California.

9:45-10:30 - Quantifying fluxes of essential micronutrients to the high productivity belt at 40°S in the South Atlantic – Gideon Henderson, University of Oxford.

10:30-11:00 – Coffee Break

11:00-11:20 – In search of context: remote sensing tools for GEOTRACES – Mary-Elena Carr, University of Columbia

11:20-11:40 – Some IAEA-Environment Laboratories activities related to GEOTRACES and potential collaboration within the Latin-America GEOTRACES group – Juan Carlos Miguel, IAEA Environment Laboratories.

11:40-12:00 – Shale-normalized lanthanide signatures of the settling particulate matter and recent sediments of Alfonso Basin, La Paz Bay, Gulf of California – Konstantin Choumelin, Centro Interdisciplinario de Ciencias Marinas - Instituto Politecnico Nacional.

12:00-13:00 – Lunch at La Bicyclette

13:00-13:50 - Visit to the Botanical Gardens

13:50- 14:30– Discussion of a Meeting Report and Allocation of Writing Tasks.

14:30 – 16:00 - Breakout sessions

BO Session 1: River and groundwater fluxes from land to sea – Chairperson: Jordi Orellana

BO Session 2: Aerosol addition to the oceans – Chairperson: William Landing

16:00-16:30 – Coffee Break

16:30-17:15 – Plenary Meeting: Report of BO Session 1 Group - Chairperson: Jordi Orellana

17:15-18:00 – Plenary Meeting: Report of BO Session 2 Group- Chairperson: William Landing

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Session D - Chairperson: Edward Boyle

9:00-9:20 – On spatial patterns and regulation of primary production in the Rio de la Plata estuary - Danilo Calliari, Universidad de la Republica

9:20-9:40 - Anthropogenic impacts and fluxes of trace elements on tropical estuaries of northeast Brazil – Vanessa Hatje, Universidade Federal da Bahia.

9:40-10:00 - Dissolved Inorganic Nitrogen (DIN) exports from 4 Venezuelan rivers: Urbanization and agriculture impact on nitrogen delivery to the Cariaco Basin and Coastal areas - Tibisay Perez, Laboratorio de Química Atmosférica, IVIC.

10:00-10:20 – Origin and fluxes of materials from an eutrophic system – Angela Wagener, PUC-Rio.

10:20-10:50 Coffee Break

Session E - Chairperson: Catherine Jeandel

10:50-11:10 – The Amazon River and other major rivers as sources of Zn complexing ligands to intermediate water masses – Gonzalo Carrasco, Massachusetts Institute of Technology

11:10-11:30- Dissolved trace element concentrations and redox processes in the Orinoco River system, Venezuela – Abraham Mora, Venezuelan Institute for Scientific Research.

11:30-11:50 – Aquatic ecosystem responses to environmental events revealed by sediment tracers in the Southern Hemisphere – Sandor Mulsow, Universidad Austral de Chile.

11:50-12:10 - Overview of Modern Dust Activity and in Southern South America – Santiago Gassó, GESTAR/NASA

12:10-13:30- Lunch at La Bicyclette

13:30-15:00 – Breakout Sessions

BO Session 3: Redox cycling of trace-elements in the oceans – Chairperson: Jim Moffet

BO Session 4: Micronutrient supply to the surface open ocean – Chairperson: Gideon Henderson

15:00-15:30 – Coffee break

15:30-16:15 – Plenary Meeting: Report of BO Session 3 Group - Chairperson: Jim Moffet

16:15-17:00 – Plenary Meeting: Report of BO Session 4 Group - Chairperson: Gideon Henderson

19:00 – Workshop Dinner

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Session F - Chairperson: Sandor Mulsow

9:00-9:20 - Spatial and seasonal differences in the geochemistry of suspended particulate matter of rivers and bottom nepheloid layers in the Cariaco Basin – Laura Lorenzoni, University of South Florida.

9:20-9:40 - Assessment of Present-Day Levels of Heavy Metals in Marine Sediments from Santa Rosalía Copper Mining Region in Baja California Peninsula, Mexico – Evgueni Shumilin, Centro Interdisciplinario de Ciencias Marinas (CICIMAR), Instituto Politécnico Nacional (IPN)

9:40-10:00 - What controls sea-air CO₂ fluxes in a pristine tropical estuary? – Leticia Cotrim da Cunha, Universidade do Estado do Rio de Janeiro.

10:00-10:30 – Coffee Break

10:30-12:00 – Break out Session 5: Processes that remove TEIs from the ocean, especially near continental margins – Chairperson: Williard Moore

12:00-13:00 – Lunch at EMBRAPA

13:00-14:00 – Poster presentation - Chairperson: Laura Lorenzoni

**14:00-15:00- Round table discussion on needs and ways to progress – Chairperson: Gregory Cutter
Rapporteur: Robert Anderson**

15:00-15:30 – Coffee Break

15:30-16:30 – Continuing Round table discussion on needs and ways to progress – Chairperson: Gregory Cutter; Rapporteur: Robert Anderson

16:30- 17:30 - Overall discussion of technical, analytical and logistical needs for LA research on TEIs

17:30- Adjourning

POSTERS

Chairperson: Laura Lorenzoni

1 -Source apportionment of organic matter in the SE Brazilian continental margin as revealed by lipid biomarkers – Renato Carreira, PUC-Rio

2 -Distribution patterns of long-lived Ra isotopes in Bransfield Strait surface water – OPERANTAR XXIX and XXX expeditions – Joselene de Oliveira, IPEN/CNEN-SP.

3 -How many information can we get from 2mL samples? – Results of South Atlantic JC-057 Cruise – Alexandre Vilela, PUC-Rio.

4 -Bahía Concepcion, western to Gulf of California: suitable natural laboratory for the marine biogeochemical studies of trace elements – Maria Luisa Leal-Acosta, Centro Interdisciplinario de Ciencias Marinas.

5 - Platinum geochemistry in aquatic systems – Daniel Lopez Sanchez, Consejo Superior de Investigaciones Cientificas Spain.

6- Elements concentrations in biota and sediments in the coastal zone of Nueva Esparta, Venezuela – Luisa Margarita Rodriguez Mata, Fundación La Salle de Ciencias Naturales/Estación de Investigaciones Marinas de Margarita.

7- Elements in Zooplankton of Northern Gulf of California in June 2008 – Evgueni Shumilin, Centro Interdisciplinario de Ciencias Marinas (CICIMAR).

8- Measurement of Labile Concentrations of Copper and Zinc by Diffusive Gradients in Thin Films in a Marina and Port Areas in

The Patos Lagoon, Brazil – Mônica Wallner-Kersanach, Universidade Federal do Rio Grande.

Important Information

Venue and Transportation:

The meeting will take place at the EMBRAPA-Solos (Rua Jardim Botânico, 1024 - Jardim Botânico, Rio de Janeiro) not very far from PUC-Rio campus. For those participants staying in the Othon Palace Hotel (Avenida Atlântica 3264, Copacabana; phone nr. 55 21 - 2106 1500) transportation will be provided to and from the meeting venue. The departure from the hotel will be at 8:00h except on November 11 when transportation to PUC for the Welcome Cocktail will be at 17:30h and return to hotel at 21:00h.

Transportation will also be provided for the Workshop Dinner. Bus departure will be directly from EMBRAPA at 17:30h returning to hotel at 21:30h.

No transportation will be provided from and to the airport where busses and taxis are available.

Registration:

Participants shall register and collect the identification badge as well as the material for the meeting before the Welcome Cocktail at PUC on November 11 or before 9:00 h on November 12 at the workshop secretariat in EMBRAPA.

Breakout Sessions:

Parallel breakout sessions will occur on November 13 and 14. Participants are invited to self-select the session of interest and actively contribute for the exchange of ideas and information relevant to the selected theme. At the end of these sessions the principal conclusions and suggestions shall be reported to all

workshop participants in Plenary. Participants acting as chairperson are kindly requested to lead the plenary presentation and to provide a written summary of the session chaired.

The breakout session in the morning of November 15 will gather all participants and the chairperson of this session is also kindly requested to produce a written summary of the session.

Participants of the breakout sessions should consider discussing the technical, analytical and logistical issues associated with research in each group. The technical recommendations will be incorporated in the final workshop report.

All produced documentation will be part of the report to the agencies that funded the workshop and shall provide guidelines for further actions and collaborations within the GEOTRACES program.

Delivery of travel and hotel receipts:

All participants which are receiving support from Brazilian and/or International funds should provide the boarding cards and the electronic ticket to be copied by the meeting secretariat.

Upload of Presentations:

Presentations should be uploaded not later than 15 min before the session start.

***Oral Presentation:* all participants presenting short communications should allocate 15 min for the presentation and 5 min for questions.**

Posters:

Although an especial poster session is planned participants are invited to display their posters by Monday, November 12 and remove after the poster session is terminated.

Emergencies

In case immediate contact is needed while in Rio please use the mobile phone number (+55 21) 9142 0267 (Angela Wagener).