

ANNUAL REPORT ON GEOTRACES ACTIVITIES IN BRAZIL

May 1st, 2022 to April 30th, 2023

GEOTRACES or GEOTRACES relevant cruises

- Operação Antártica XLI – XVI GOAL CRUISE – PROVOCCAR & ECOPELAGOS CRUISE (24 February-11 March 2023). PI: Rodrigo Keer (FURG)

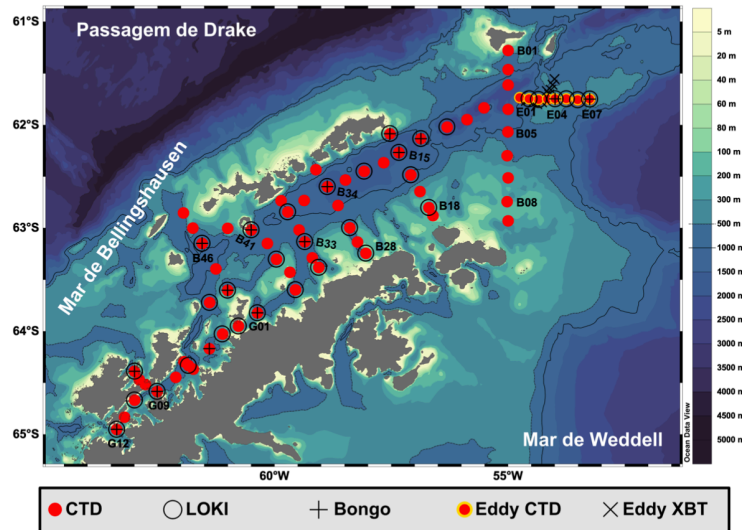


Figure BR-1. Location of oceanographic stations, launches of eXpandable BathyThermograph (XBT) and trawls of Bongo and LOKI nets performed by GOAL during the 6th phase of OPERANTAR XLI.

Water samples for Rare Earth Elements (REE) and Platinum (Pt) were collected between 2 and 7 depths along 34 vertical profiles of the water column using 12 L Niskin bottles.

New projects and/or funding

- Submitted Project to CNPq/MCTI/FNDCT 08/2023 – Brazilian Antarctic Program – PROANTAR, entitled: "Oceanographic Processes and Mesoscale Structures in Climate Hotspots: Synergies and Advances in Physical and Biogeochemical Monitoring around the Antarctic Peninsula (PRO-SAMBA Project)". Funding of 3 cruises in the North Antarctic Peninsula and analysis.

New GEOTRACES or GEOTRACES-relevant publications (published or in press)

- SANTOS, ANA C. S. S.; SOUZA, LAÍS A.; ARAUJO, TAIANA G.; DE REZENDE, CARLOS EDUARDO ; Hatje, Vanessa . Fate and Trophic Transfer of Rare Earth Elements in a Tropical Estuarine Food Web. ENVIRONMENTAL SCIENCE & TECHNOLOGY, v. 57, p. 2404-2414, 2023.
- SENA, INGRID C.M.; SOUZA, LAÍS A.; PATIRE, VINICIUS F.; ARIAS-ORTIZ, ARIANE; CREED, JOEL C. ; CRUZ, IGOR ; Hatje, Vanessa . Environmental settings of seagrass meadows control rare earth element distribution and transfer from soil to plant compartments. SCIENCE OF THE TOTAL ENVIRONMENT, v. 1653, p. 157095, 2022.
- HATJE, V.; Sarin, M.; SANDER, S.; OMANOVIC, D.; RAMACHANDRAN, P.; VOELKER, C.; BARRA, R. O. ; TAGLIABUE, A. . Emergent interactive effects of climate

change and contaminants in coastal and ocean ecosystems. *FRONTIERS IN MARINE SCIENCE*, v. 1653, p. 111663, 2022.

GEOTRACES presentations in international conferences

- Plenary talk by V Hatje - Interactive effects of climate change and contaminants in marine ecosystems. XVI International Estuarine Biogeochemistry Symposium Šibenik, Croatia, 23-26 May 2023
- Poster by Andrade, RLB, V Hatje, C Jeandel. Neodymium isotopes across the Antarctic and South and Central Western Atlantic

Submitted by Vanessa Hatje (vhatje@ufba.br)