

**2023 NF-POGO-SeaNetwork Visiting Fellowship for  
Shipboard Training on board the RV Belgica, hosted by Ghent University,  
Belgium.**

**Fellowship Report**

**Name of Trainee:** Luiz Gustavo Rodrigues de Sá Valle

**Name of Supervisor (Parent Institution):** Dr. Catia Fernandes Barbosa - Universidade Federal Fluminense (UFF), Brazil

**Supervisor (Host Institution):** Prof. dr. David Van Rooij - Ghent University (Ugent), Belgium

**Dates of Training:** 06/06/2023 to 19/06/2023

**Topic of Training:** Geology and Geophysics

**Section A**

**(To be completed by the fellow)**

*It is the responsibility of the trainee to forward this form to the host and parent supervisor, and to submit a fully completed version to the POGO Secretariat. Please note that the complete report will be made public on the OTP website; Private comments should be included in a separate confidential form.*

**1) Please provide a brief description of activities during the training period:**

The 2023 NF-POGO-SeaNetwork Shipboard Training on board the RV Belgica took place at Porcupine Seabight (Irish EEZ) between 6th-19th of June. The project studies the sedimentary processes (past & present) linked to Belgica mound contourite drift and the Gollum channels in the Porcupine Seabight, in which the main objective of the expedition was to collect oceanographic data and sedimentary cores, complementing the results obtained during the RV Belgica 2018/14, 2019/16 and 2022/18 surveys.

I had the opportunity to participate and improve my scientific knowledge and abilities with different geophysical methods, sedimentary and seawater sampling. Our activities were divided into two main shifts: (I) during the day our main task was to work with the sedimentary cores retrieved using gravity and boxcore. We photographed, sampled, and identified the cores. Furthermore, in some sites we used CTD equipment to measure conductivity, temperature, and depth (pressure) of the water column. Together with the CTD, Niskin bottles were submerged into the water to take samples at specific depths. Every day, before starting the geophysical survey, we carried out marine mammal observation (MMO) to identify the presence of whales and/or dolphins. (II) After the MMO, we started high-resolution seismic profiles with sparker + sub-bottom profile or multibeam bathymetry and the survey lasted all night.

All data acquired will be part of PhDs at the Department of Geology at the Ghent University and research at the Flanders Marine Institute (VLIZ).

**2) What applications of the training received do you envision at your parent institution?**

My parent institution has been developing strong research projects in paleoclimate and in paleoceanography, however during my geophysics undergraduate I did not have the opportunity to work with some of the methods carried out during the expedition. I hope to contribute with new insights and knowledge obtained during the shipboard training on board the RV Belgica. Furthermore, this experience in a scientific research cruise will be extremely useful for me once I intend to continue my studies involving oceanographic and paleoceanographic changes through marine sediments and deep ocean strata, thereby contributing to the modelling of climates and future oceanographic conditions.

**3) Please provide your comments on the Fellowship Programme.**

Going aboard on a research vessel was one of my goals during my master's graduation and I am very grateful to be chosen for the 2023 NF-POGO-SeaNetwork Shipboard Training Fellowship. POGO gave me amazing support, always kind and helping me to organize everything about my trip from my parent institution to the host institution. It was a pleasure to participate and work with Prof. David Van Rooij, his PhD students, and the Flanders Marine Institute (VLIZ) researchers. They were very encouraging and friendly, always helping and teaching us the different analysis and equipment we were handling making the program a success. It was a wonderful experience for me which I believe will open perspectives for my career and for the advancement of my studies. I hope more students and early career scientists can have the same opportunity I had.

**Luiz Gustavo Rodrigues de Sá Valle**

**Date: 05/07/2023**

**Section B**

**(To be completed by the host supervisor and returned to the trainee)**

*Please note that the complete report will be made public on the OTP website; Private comments should be included in a separate confidential form.*

**1) Please provide your comments on the performance of the trainee.**

It was our pleasure to have Luiz on board of RV Belgica 2023/12 "SHMEAGOL" offshore Ireland. Although Luiz already had some theoretical experience with a lot of techniques and has worked on cores, he never participated to the acquisition of geophysical and sedimentological data. Luiz has done an outstanding and accurate job, taking a lot of responsibility with a superb "can do" mentality. He was always ready to help out, even in the very early hours! He also gave a scientific presentation about his Master's thesis work, which was found to be impressive by all shipboard participants. Also in the name of my co-chief scientist and all other team-leaders, we are looking very interested to his future academic career.

**2) Is this exchange likely to lead to future collaboration with the trainee's parent institution? If so please give example(s) of how this collaboration may be pursued.**

During his scientific presentation, it was clear that quite some aspects of his research are also falling in the expertise of my team and the one of dr. Thomas Vandorpe (VLIZ). We welcome further contacts and are always open for further assistance or collaboration. We did not have any previous contact with UFF, but we certainly welcome more student participants in the future.

**3) Please provide your comments on the Fellowship Programme.**

To be honest, I thought this was only a programme for marine biology. It was thanks to Luis Pinheiro the offer was sent to POGO. I am still very enthusiastic about the resources, efficiency and friendly contacts of the involved officers. Being a product of the IOC-UNESCO TTR campaigns, I have become a big fan of POGO and will likely offer annual berths during my surveys, to further help students gain this wonderful practical experience.

**Prof. dr. David Van Rooij (Ghent University, Belgium)**

**Date: 05/07/2023**

**SECTION C**

**(To be completed by the parent supervisor and returned to the trainee)**

*Please note that the complete report will be made public on the OTPwebsite; Private comments should be included in a separate confidential form.*

**1) Do you agree with the above comments and do you have any additional feedback you wish to provide?**

I am extremely happy with the conclusion of this experience of scientific work on board during Luis master's degree. This will undoubtedly bear other fruits and exceptionally complements his training, since he is working with marine cores, but did not take part in their sampling. This experience was missing in his resume, but now, once fully completed, improves his confidence to advance his career in oceanography and marine geophysics.

In addition to this personal benefit, Luiz opened the possibility of expanding our research group's networking, with possibilities for new partnerships and rising international curiosity about our research group due to his high performance. I thank Luiz for taking on this challenge of the 2023 NF-POGO-SeaNetwork Visiting Fellowship for Shipboard Training aboard the RV Belgica, hosted by Ghent University, Belgium under the supervision of Prof. David Van Rooij and collaborators, who made this training opportunity possible.

We are open for cooperation in research between institutions, including training students and strengthening joint research.

**Prof. dr. Catia Fernandes Barbosa (Dept. of Geochemistry, Universidade Federal Fluminense, Brazil)**

**Date: 07/ 07/2023**