

## 2025 NF-POGO-SeaNetwork-UCT SEAmester South Africa's Class Afloat

# Training Report

**Name of Trainee:** Khouloud BOLTANE

**Name of Supervisor (Parent Institution):** Sana Ben Ismail

**Supervisor (Host Institution):** Isabelle Ansorge

**Dates of Training:** 17 /06/2025 to 27/06/ 2025

**Topic of Training:** Multidisciplinary Oceanographic Training at Sea: Tools, Techniques, CTD-based Monitoring and Microplastic Monitoring Aboard the SA Agulhas II

### 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:

During the SEAmester VIII training programme aboard the SA Agulhas II, I engaged in a variety of hands-on oceanographic research activities. These included field sampling using Neuston nets for microplastics, Bongo nets for zooplankton, and CTD rosettes for profiling water temperature, salinity, and depth. I also participated in wet lab chemical analyses, acoustic monitoring sessions, spatial mapping with QGIS, and geological work in the Geo Lab. One of the highlights of the training was conducting dissection experiments on seals and seabirds to quantify ingested plastics. Daily lectures and team debriefs also deepened our understanding of ocean dynamics, marine biodiversity, and environmental challenges. At the end of the training, we selected a topic and worked closely with passionate researchers who guided us and shared valuable insights. For me, I collaborated with two other students on a poster entitled Trash Collectors: Nets vs Birds, the project focused on microplastics, which is also the main topic of my PhD research. This opportunity allowed me not only to deepen my understanding of microplastics in water samples, but also to explore their impact on birds, a new dimension for me, highlighting dual methods of microplastic monitoring. This hands-on experience significantly enhanced my technical skills and enriched my PhD research on marine science.

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

The SEAmester VIII training has provided me with valuable technical, analytical, and interdisciplinary skills that I plan to apply in several ways at my home institution, especially in the context of marine pollution research. I plan to use the Neuston net and CTD for field sampling, apply QGIS for data visualization, and share what I have learned through workshops with students and colleagues. The seabird-based monitoring approach also gave me new ideas to complement laboratory analysis. Overall, this experience will help improve my research practices in ocean science.

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

Through this fellowship, I was able to participate in SEAmester VIII, a unique training programme that combined fieldwork, lectures, and interdisciplinary collaboration. The support provided by POGO, both logistical and personal, made the experience smooth and enriching. I especially appreciated the sense of belonging to a global scientific community. This fellowship has had a strong and lasting impact on both my research and my motivation to contribute to ocean science and marine conservation. Also I would like to express my sincere gratitude to Sophie and POGO team for generously offering me the Secchi disk as a gift. This valuable tool will be integrated into my upcoming field sampling campaign to assess water transparency, contributing directly to the monitoring and analysis efforts of my research.

**PRINT NAME**

**KHOULOU BOLTANE**

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**Date: 07 /07 / 2025**

**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.**

KhouLOUD was an outstanding member of the SEAmester student team, demonstrating remarkable diligence, a strong eagerness to learn, and a genuine ability to connect with fellow South African students. She proved to be an excellent choice as the POGO ambassador, and I would enthusiastically welcome the opportunity to have her join another voyage aboard the SA Agulhas II.

**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.**

Very happy to consider an exchange between institutes although this was not discussed during the voyage.

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

This is an excellent initiative, as it enables students from outside South Africa to participate in SEAmester, thereby expanding the network for student collaboration across continents.

**PRINT NAME**

**Prof Isabelle Ansorge**

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**Date: 8/July /2025**

**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?**

The SEAmester VIII programme provided an excellent opportunity to strengthen her practical and technical skills in oceanographic research. The training complemented her current PhD work on marine plastic pollution by exposing her to new sampling methods, field techniques, and interdisciplinary collaboration. I have observed a noticeable improvement in her scientific confidence, motivation, and ability to integrate field-based learning into her research. I strongly support such initiatives and recommend their continued implementation.

**PRINT NAME**

**Sana Ben Ismail**

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**Date: 15 / 07 / 2025**