SAYA DE MALHA DAILY

A Newsletter of Dominique and François

N°7, 7th November 2022



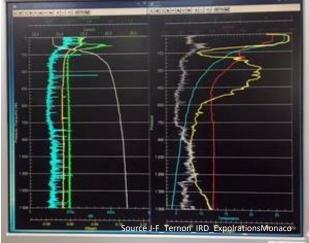
Where are we?

North Side of the Saya de Malha Bank 9.38° South 61.00° East Sunny, Slight Seas, Wind 16.13 Knots Air Temperature 27°1 Water Temperature 26°7



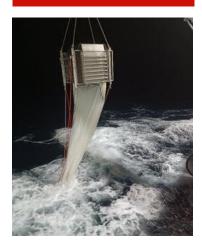
What do we know?





Thanks to the Rosette, its 24 sampling tubes, its CTD for temperature and salinity, and additional sensors (oximeter, fluorometer, Transmissometer, ...) (see SAYA DE MALHA no 4), scientists from the pelagic group can observe the evolution of the different parameters at different depths. The fluorescence profile (in green on the left screen) gives indication about the presence of phytoplankton in the euphotic zone. The temperature, salinity, and oxygen profiles (Blue Red Yellow on the right screen) show the overlap of water bodies. The distribution of different size particles is represented by grey profiles on the right screen. These operations allow for the description of an environment which is far from being homogenous and better understanding of the functioning of the pelagic ecosystem influenced by the Saya de Malha Bank.

What's on?



The Multinet

This sampling technique consists of 9 plankton nets, which can be closed at different depths when ascending. For example, every 100 m starting from 1000m. This operation allows for the collection of data about zooplankton communities at each layer. By Comparing these data with those collected by the Rosette, in particular the UVP (Underwater Vision Profiler) which measures particles distribution and takes pictures, we can better understand the ecological structure of water bodies.

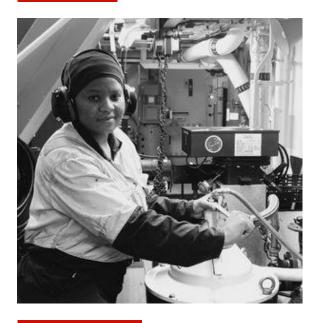
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The Portrait



Sharmaine Mamashela, 4th Mechanical Engineer

Sharmaine was born in the Limpopo province but grew up in Durban and lives in Jo'burh. She trained as a mechanical engineer. Shortly after graduating, she saw by chance an ad in the paper about a government programme to train as a marine engineer. She applied and was accepted. Since graduating in 2016 she never looked back. "Marine engineering is my home" she said. Working in a male dominated industry means that you have to work twice as hard to prove your capacities. Her ambition is to become a chief engineer one day. There are female cadets coming into the industry. "I say anyone can do the job, it is not about strength". "This expedition is very different from our usual Antarctic work, it is hot and I learnt a lot about corals and the ocean".

Life on Board



Every evening at 20.15, the team and programme leaders meet with the Commandant and the second in charge, the expedition leader, and the Scientific director. Following a roundtable of the outcomes of the day, the work programme of the next day is planned and is followed by issues and questions as needed.

Did you know?

A Mythical Shell

In 1988 during expeditions organized by soviet research institutes, numerous mollusk specimens were collected. Following the fall of the Soviet Union, the collections were scattered often ending in private collections. In 1990, an unknown mollusk specimen found its way to two German scientists, Rockel and Korn, of the Museum of Natural History of Stuttgart, who described it as *Phasmoconus primus*. Until yesterday, the Stuttgart specimen was the only cone from this species known in a public museum, that is until one of the divers from the expedition found another one!

