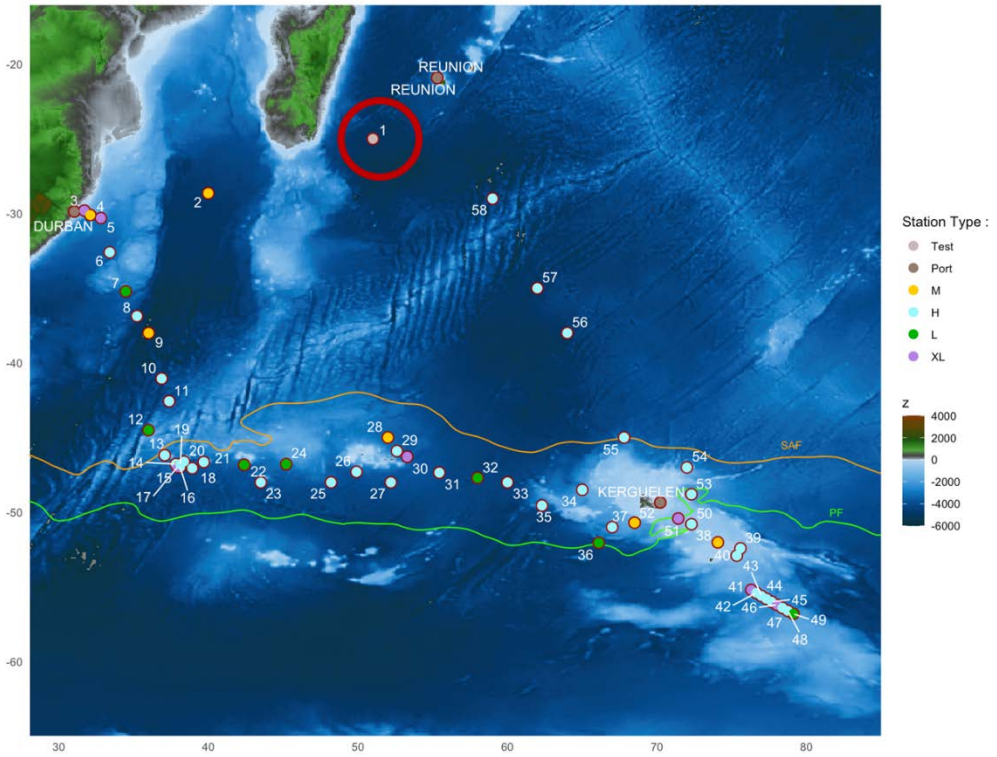
Hi everyone!

Today, we are very close to South Africa. We already sailed quite a bit and we already sampled few stations – actually we are at station 4 now! Time is flying!

Below I will speak about the first station: the test station! We were there on January 14 (Latitude: 25°S; Longitude: 51°E; right at the east of Madagascar) and we wanted to check if everything was working and if everyone was ready. Of course, we had many small problems, but that's why to do a test station first!

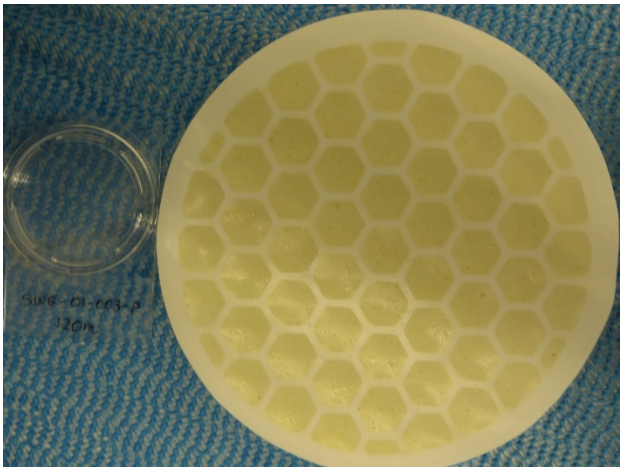


We arrived there at noon but before to deploy the in-situ pumps, we deployed the botlles – see the picture below.

In the meantime, Marion (my colleague in the bubble) and I prepared the in-situ pumps. We have set up the filters in the bubble because they have to be and to stay clean. This is because we look at metals in the particulates and metals are at trace level in seawater whereas our ship is rusty – and therefore full of particulates of iron! Difficult to analyse iron in our samples in such environment. So, we have to be very careful and we have to protect our samples as much as we can – in the bubble!

The first in-situ pumps were deployed at 2am… and they came back on board at 7am: tough night! But the positive point was the super pretty sunrise!

After the pumps were back, Marion and I went back to the bubbly in order to remove and store the filters. The night has been long but, look, we have got some great samples:

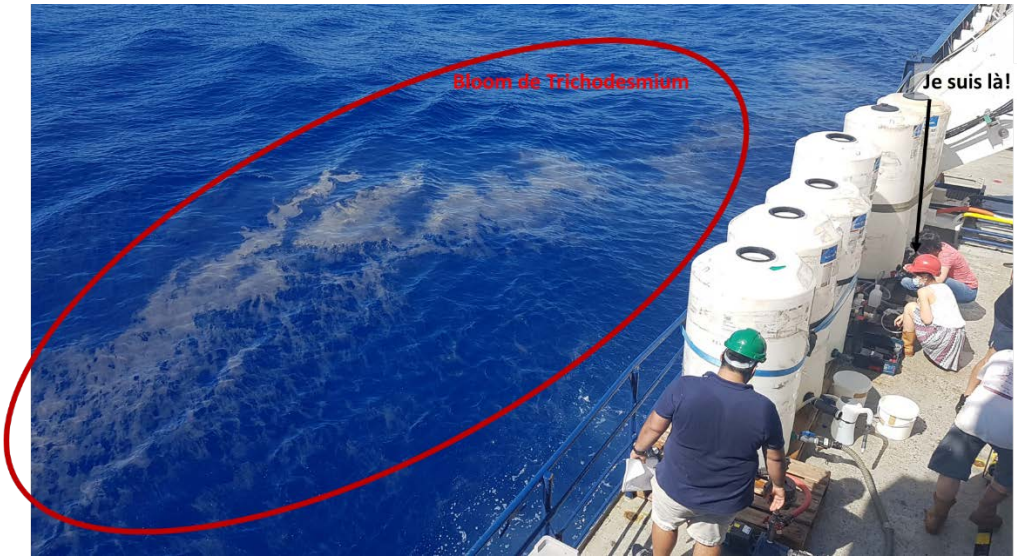


An unused filter is all white and on that one, you can see some brown marks: those are particles! There are many different particles: they can come from biology (phytoplankton, fecal matter), from sediments, from margins, from atmospheric dusts, etc.. We can see these different types of particles via the colours of the filters after filtration:

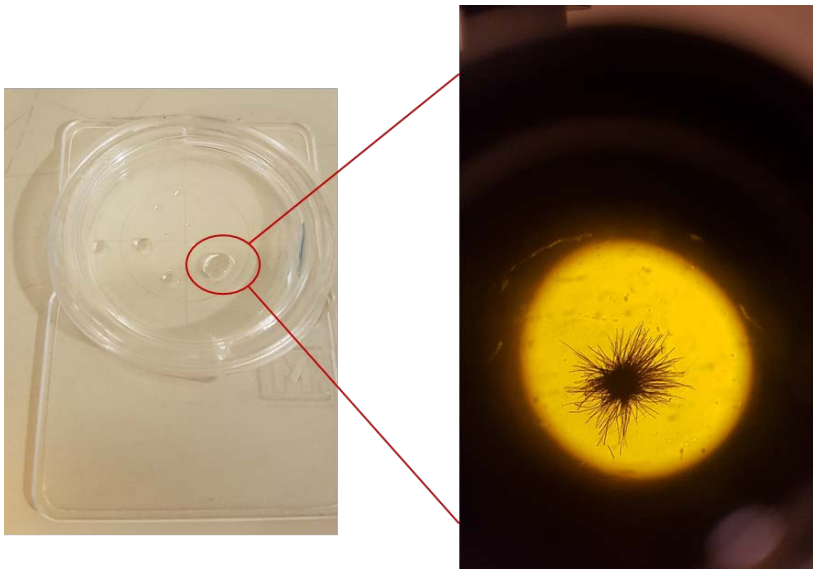
The filter from the left is rather brown whereas the filter from the right side is rather green: one has been collected at 2100m and the other one at 50m of depth. I let you guess the sampling depth of each one and why they are characterized by different colours ;)

After collecting, sharing and storing each filter, I went to bed: it was 10am!

Luckily, the next day was off and I could rest and look at the pretty ocean! We actually saw some cool phytoplankton blooms that looked like pollution:



Hugo, a friend of mine with who I studied the Master is also onboard. He is biologist and is interested in microscopic alguae (phytoplankton). He sampled some water from these funny surface stains and looked at it through a microscope. He could see some small phytoplankton cells: super coooool!!



The phytoplankton specie is part of the cyanobacteria and this specific one is called Trichodesmium. These species are able to absorb the nitrogen from the atmosphere because there is not enough of it in the ocean.

To finish this little news page, I wanted to clarify something: okay we work quite a lot.. BUT we also enjoy many moments with a small apero (There is a bar onboard!!) and with beautiful views! ;)