

Hi all!

We are in the South latitude: the temperature of the air and water cooled down quite a lot! Waiting 1h30 outside on the deck for the deployment of the in-situ pumps or sampling water at 0°C became less nice! ;-)

Being south also means we get to see the Austral islands! On January 31th we were close to Marion and Prince Edouard islands.



Today these islands are south-African but they were discovered by a Dutch explorer. He made a mistake in writing down their locations and the next Dutch explorers could not find the islands anymore. They were re discovered later by a French explorer: Marc Joseph Marion Dufresne – the same one who gave his name to our ship. In the end, these islands became British and are today south-Africans.

It is super nice to be close to land again, even if this island looks pretty austere! We had the chance to see seals, penguins and many birds!

Like pétrels, or prions (french names. I don't know the translations, sorry).

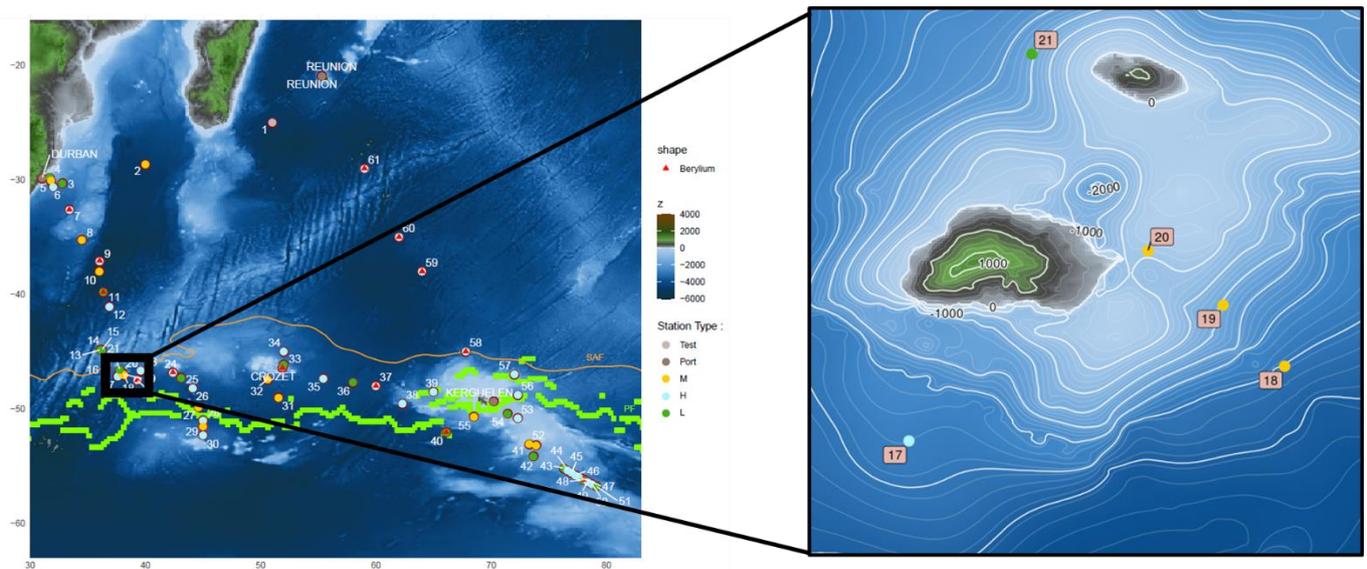


Or also the famous albatross!



Albatross are impressive birds. Cédric, a friend on board who knows about these birds said that they are perfectly adapted to the Southern Ocean and to its strong winds. Their huge wings allow them to spend less energy at sea than on land. Studies have shown that albatross could fly all around the Southern Ocean without landing. These are opportunistic birds (for eating) and that is why they stay close to our ship: in case some of our food would fall down ;-)

We had the chance to sail in between the two islands and to sample many stations: it was super busy because these 4 stations were close to each other and were sampled in a very short time (stations 18, 19, 20 and 21).



Explaining the very tired faces...ahaha! On the picture below: it was approximately 9am and we just finished working after a big night with our dear in-situ pumps: We had the chance to discover the islands when getting out of our lab container: beautiful surprise! (remark: I am not grumpy on the picture ;-)



We took samples at all these stations to study the impact of the Marion island margin on the lateral export of chemical elements toward the ocean. We think that the continent erosion and the sediment dissolution from these margins are important sources of chemical elements to the ocean, but we do not know yet their importance at the global scale and we do not know which processes are involved. Marion Islands are far from human influence, rivers, atmospheric dusts and are therefore perfect to study such phenomenon. Moreover, the important spatial resolution of these 4 stations and the diversity of the studied parameters on board (the different chemicals, the currents, etc..) will allow us to better understand the processes involved in producing margin source. So, obviously, I took many samples and I am looking forward to seeing the results of the future analyses!

Now we are sailing towards the south. We will cross the roaring 50th, south of the polar front, before sailing back north toward Crozet islands!