## R/V SONNE SO283 "Mooring Rescue" Emden - Emden, 19.03. - 25.05.2021

7<sup>th</sup> Weekly Report 26.04. - 02.05.2021



## Northern Benguela upwelling area successfully checked off

Coming from the northern border of Namibia at 17°15'S, R/V SONNE made her way to 25°S to recover the last mooring in Namibian waters and collect some more data and samples there on the transect. The transit was also used to conduct the monthly safety drill to keep everyone on board in practice. And then another good three days of research work started, which was to demand everything from the ship, the material and the people on board.

On April 27 we deployed a short and a long drifter system, then one CTD station followed the next, so that all involved worked nearly sleepless through the night. But if we are in the region with R/V SONNE, then we would like to use the time as effectively as possible. So plenty of data was collected, water samples were filled and net catches were brought on board and further processed virtually every hour.



Scientist of the Universität Hamburg Luisa Meiritz with her self-made "Meiritz-Drifter" - it works and collects samples diligently (© Universität Hamburg/Knut Heinatz).

On April 28 at sunrise, shortly after 06:00 a.m. shipboard time, it got exciting again: The last mooring in Namibian waters, LTCN-01, was pinged. And yes, the system responded immediately and was also visible on the water surface a short time later. However, something was visible but only dimly resembled what had been moored in 2019. Similar to WBST East-08, almost the entire system was overgrown with mussels and other benthic organisms. Again, it became apparent that recovery was overdue before the system would have collapsed under its own weight. So not only all the instruments and equipment were successfully recovered, but also hundreds of kilograms of bivalves. Despite intensive scraping and scratching, it took time for the actual instruments to reappear. Most importantly, the system was successfully back on deck.



Flotation exposed from overgrowing mussel colonies (© Universität Hamburg /Knut Heinatz).

During April 28 several CTD and net deployments were on the station schedule, before the two drifters were to be recovered again on April 29. During the night the wind increased more and more, so that we had to fight with wind gusts up to 10 Bft. and waves up to 5 m hight in the morning of April 29. Under these conditions it was difficult to see the drifters at all in the rough sea. But now the weeks of cooperation on the ship were about to pay off. In excellent cooperation between the bridge, the deck crew and the mooring specialists of the Universität Hamburg, both drifter systems were recovered from heavy seas and secured on deck on the morning of April 29 - including the sample set. However, the weather should not have been much worse. After successful deck work and a hard course across the swell, R/V SONNE then changed on course north towards Walvis Bay in the evening of April 29.



*R/V* SONNE leaves the harbor of Walvis Bay (© Niko Lahajnar / Universität Hamburg).

In the gray coastal fog, R/V SONNE then docked in Walvis Bay for the second time on this voyage on 30.04. at 09:00 shipboard time. On the one hand, this was necessary so that the ship could be cleared out again after completion of the work in Namibian waters; on the other hand, fuel was bunkered once again due to the additional nautical miles and port calls. With full tanks, RV SONNE left Walvis Bay in the afternoon at 03:24 p.m. in bright sunshine, set course north along the southwest African coast towards Angola, where our last stations including our final mooring will be waiting for us in the next week. On the way to the actual working area, the first of three BSH ARGO floats was launched on the morning of May 2 at 07:00 hrs. Two more will follow on this voyage.

On board everyone is well and greets the people at home.

At sea, 02.05.2021

Niko Lahajnar (Universität Hamburg, Institute for Geology)