R/V METEOR

M174 "N-Amazon"

Las Palmas - Emden, 12.04. - 30.05.2021

2. Weekly Report
12. -18.04.2021

We left Las Palmas on April 12 heading southwest and made very good progress with an amazing 13 knots of speed for the first few days, helped by the ocean current and the constant wind from the northeast.

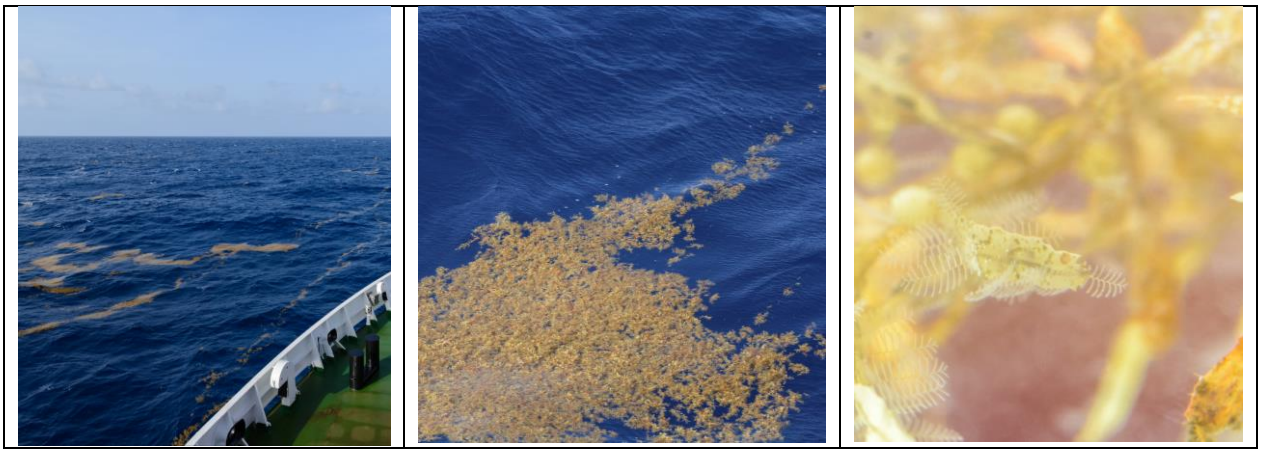
Departure from Las Palmas Photos © Nico Fröhberg

The dominant color around us since then has been blue in all shades; blue sky, clear blue water, and a bright blue of the freshly painted lab cabinets and shelves. Sometimes the clothing of the science and crew did the rest.

As soon as we left Spanish waters, the first test station was made to launch the CTD system and hand-held optical instruments. Further stations followed in the filaments of the Mauritanian upwelling and on our route towards the southwest. We have installed our optical instruments and can follow on-line changes in plankton composition. The TSG system on board provides us with continuous information on changes in surface temperature and salinity. These data are also followed "live" by colleagues in France and perhaps other parts of the world.

We also take great pleasure in the membrane-pumped seawater pipeline that runs continuously here for "on the go" work. In the Geolab, various pigments are continuously measured and plankton enriched. Even small crabs and arrow worms arrived undamaged in our samples - an indication of how gently the pump works. So we can start experiments with the surface water along our course, which will be a good link to planned work in the Amazon outflow.

On April 16, we saw *Sargassum* for the first time, a pelagic alga that spreads eastward from the Caribbean and consequently becomes denser the farther west we go. On April 18 we steamed through surface accumulations. We do not yet know the reasons for the proliferation of this algae in the Caribbean and equatorial Atlantic. We brought the first clumps of plants on board with the landing net and admired the living little ecosystems - and of course took some samples.



Sargassum carpets have been harassing us since April 18 morning. Some host small ecosystems like on the right hydrozoan colonies Photo left and right © Nico Fröhberg, middle © Toralf Heene

There was another brief moment of shock on board when we realized that we had not launched an increase in bandwidth for receiving high-resolution satellite images in time. It had simply been forgotten by the cruise control due to the many quarantine-related changes. After documents were immediately submitted, we were amazed to see that this was made up for in no time at all and in perfect coordination between the German Research Fleet Coordination Centre, the captain, the ship's command, the shipping company, and the German Research Foundation. It took less than two days for this possible data gap to be closed, because all those involved had also worked on it purposefully and efficiently in the evenings and at the weekend. It must be noted that on board, together with the responsible offices ashore, the organizational processes can be much more efficient than in so many other places.

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Link zum Blog der Reise: https://www.io-warnemuende.de/fs-meteor-m174-2021.html