

RV MARIA S. MERIAN - MSM112 "RioM ROFI"

The Rio Magdalena Delta Region of Freshwater Influence

07.10. - 14.11.2022, St. John's (Canada) - Cartagena (Colombia)



3rd Weekly Report (17. - 23.10.2022)

The scientific part of the expedition MSM112 "RioM ROFI" off the Caribbean coast of Colombia has begun. After the transit from St. John's through the Caribbean Sea we moored for one day in Cartagena on October 19. Here colleagues from Colombia and Germany, an observer for marine mammals and the inspector of the responsible authority DIMAR joined us.

It was a splendid kick-off: A diplomatic reception was held on board and in a pavilion on the quay: the Minister of Science of Colombia, the German Ambassador, the President of the Universidad del Norte (Barranquilla) and many other guests did the honors and gave us the pleasure of short greetings and best wishes for our expedition.



Figure 1: The scientific team of MSM112 is complete.

On the same evening, we cast off and started the scientific part of MSM112. First, we explored the sedimentology in front of the mouth of the Rio Magdalena. After a short transit, we reached the study area already the next morning on October 20. Here, submarine canyons, large slumps, and channel-levee systems are located in close proximity to the river mouth. We first used the multibeam echo sounder to survey the morphology of two channels. At the same time, the parametric echo sounder was running for a view into the shallow subsurface. Even in the preview, the meanders, slopes, slides, and depositional systems on the seafloor are fascinating.

The hydroacoustic data is promising and allows the selection of suitable positions for direct sampling. Areas of stratified sediments are well suited for sampling with the large-box grab and gravity corer. Thus, we were able to recover several large bottom samples from the box corer and gravity corer during the first day and night. The samples were immediately processed and a large amount of subsamples were collected for specific further processing in the corresponding laboratories at home.

After this first very intensive laboratory and deck work and extensive cleaning of the deck and hangar, we are now surveying another canyon.

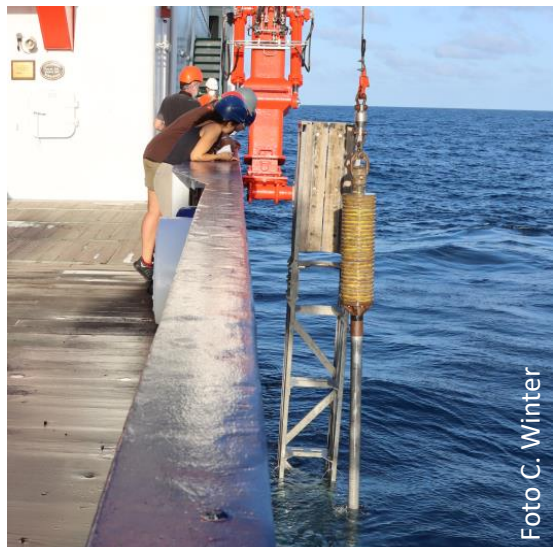
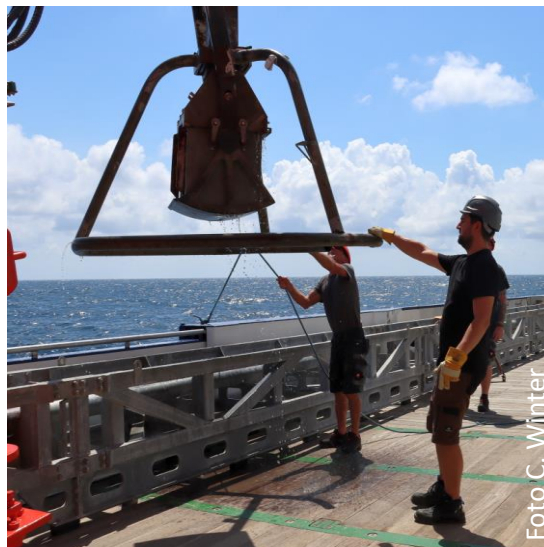


Figure 2: The expedition booklet of MSM112 (top left). Early morning CTD-station in the Caribbean Sea (top right). A full box corer comes back on board (bottom left). A First look at the gravity corer during retrieval (bottom right).

The sea is calm, the weather is very good, the mood also, everybody is healthy - and looking forward to the near end of the obligatory masks on board!

Greetings in the name of all participants,

Christian Winter

(Kiel University)