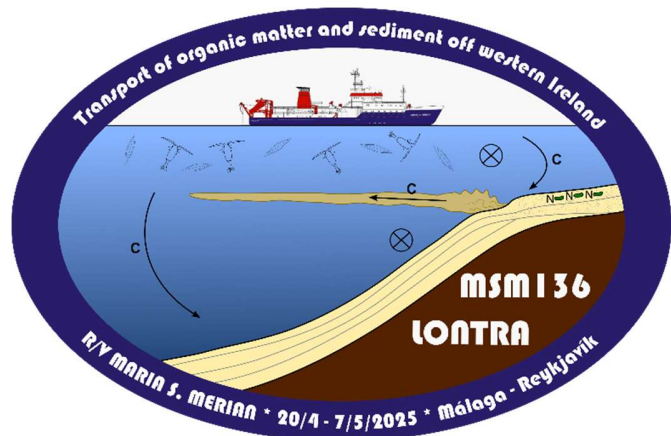


1st Weekly report
MSM136
19th-27th April 2025



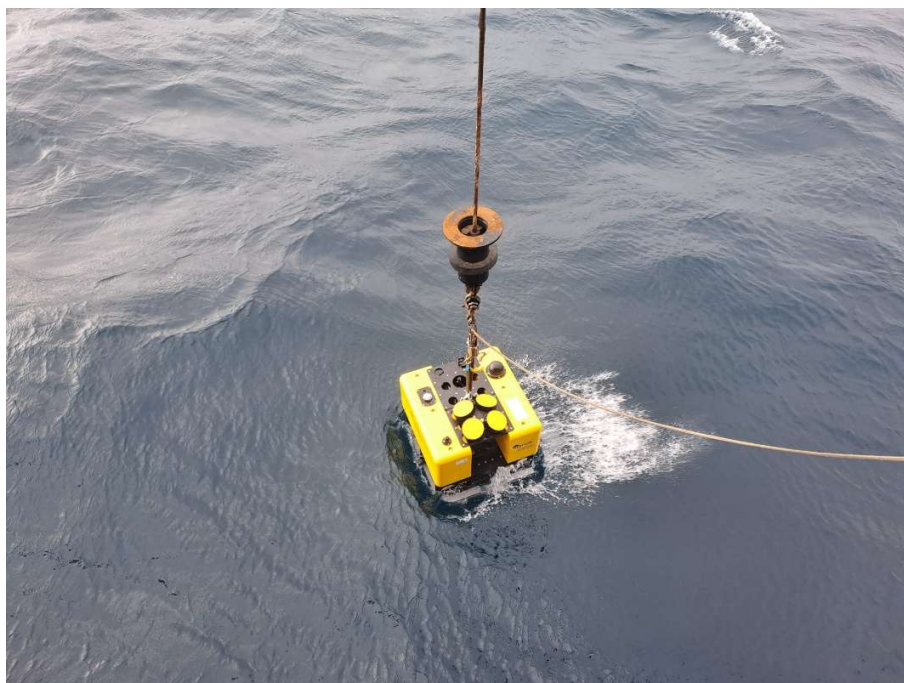
On the 19th of April, a team of 20 scientists from the MARUM-Center for Marine Environmental Sciences (University of Bremen), the Alfred Wegener Institute and the Max Planck Institute for Marine Microbiology, boarded the research vessel Maria S. Merian in the harbour of Málaga (Spain). The city of Málaga was full of life celebrating the Easter festivities and it was a great start to the cruise. This cruise is the third one of the MARUM Cluster of Excellence “The Ocean Floor - Earth’s Uncharted Interface” that takes place in 2025 onboard the R/V Maria S. Merian and that focuses on the study of the transport of organic matter in the ocean.

The cruise began with some unexpected but very interesting activities. In addition to the scientific team and the crew of the vessel, a technician from the UK Met Office joined us for because we helped them access a meteorological buoy off the west of Ireland that had been out of service for several months. The transit to the buoy location was quite shaky and most of the scientific team had some problems adjusting to the movement. But then the conditions improved and the team got used to the wild North Atlantic Ocean and was already ready to work. The UK Met Office technician successfully repaired the buoy, which was then redeployed, and disembarked in Galway, Ireland. At the same time, a researcher and observer from the University College Cork, Ireland, embarked to join the scientific team.



Meteorological buoy operated by the UK Met Office being recovered for repair on the R/V Maria S. Merian.

The original plan of the MSM136 was to investigate the lateral transport of organic matter off NW Ireland, from the Irish continental shelf to the deep part of the Rockall Trough. However, despite having obtained the diplomatic permit for research, we could not obtain a permit from the Ireland's Maritime Area Regulatory Authority and we could thus not carry out our research in Irish waters. Fortunately, we could also find an alternative site in international waters on the Rockall Bank. We reached the study area on the 25th of April 2025 and have had three very active and successful days of research on board so far. We have already carried out some hydroacoustic surveys to recognise the type of sediment deposits and identify layers with high amount of particles in the water column and have done several stations in which we used a wide range of tools. We deployed a mooring and a lander to investigate the particle dynamics near the seafloor that we will recover at the end of the cruise. At the stations, we measured the properties of the water column using a CTD, collected water with the bottles of the rosette and particles with in situ pumps, drifting traps and marine snow catcher. Moreover, we also collect surface sediments using a multicorer and a grab.



MARUM Seafloor lander being deployed on the slope of the Rockall Bank.

We are now finishing the first set of stations and we will then give the labs a rest for mapping and moving on to the next transect of stations. The atmosphere on board is great, the support of the crew has been perfect and we are happy that we can continue working together one week more.

On behalf of all cruise participants of the MSM136

Elda Miramontes