

1st Weekly Report M208, Mindelo-Mindelo

15. - 16.2.2025



With the departure from the port of Mindelo, Cape Verde, on February 15, 2025, Meteor cruise M208 began under the leadership of GEOMAR Helmholtz Centre for Ocean Research Kiel. The objective of the cruise is to investigate physical, biogeochemical, and biological processes in the tropical upwelling region off Northwest Africa. During this voyage, preliminary work for the FUTURO program will be conducted. FUTURO ("The Future West African Upwelling System") is a multi-scale, year-round, co-designed and multidisciplinary concerted observational campaign in the in the tropical North Atlantic upwelling system, planned for 2027–2029.

The research cruise follows an interdisciplinary approach to better understand the dynamics of coastal upwelling along the eastern boundary off Northwest Africa, its physical drivers, its significance for biological productivity and plankton communities, and the associated chemical transformation rates. Additionally, the cruise will investigate atmospheric forcing, the deposition of Saharan dust, and its impact on nitrogen fixation and biological productivity.

The cruise started with a one-day delay as we initially awaited the arrival of two delayed supply containers. However, it became evident that the containers would be significantly further delayed due to a mechanical failure of the container ship. In consultation with the agency and port authorities, we decided to commence the scientific work and return to Mindelo later to take the supplies on board.

We are currently en route to our first research area off the coast of Mauritania. Preparations for mooring operations, glider deployments, and physical, chemical, and biological investigations are in full swing, and we eagerly anticipate the first measurements.

Greetings from the tropics,

Peter Brandt and the participants of Meteor cruise M208



Fig. 1: Departure of RV METEOR from the port of Mindelo, Cape Verde (Photo: Peter Brandt).