



M197

(30.12.2023 – 06.02.2024)

1st Weekly Report (30.12.2023 – 31.12.2023)

Unfortunately, the first weekly report of research cruise M197 starts with less positive news - despite our scheduled departure date of 30.12.2023 we remain in the Port of Limassol (Republic of Cyprus). This delay is due to the late arrival of shipping containers with scientific equipment sent from Germany. This delay in delivery has coincided with the holiday period and highly reduced port operations. We expect the shipping containers to be loaded onto the research vessel on 05.01.2024 with a subsequent departure date of 06.01.2024.

In the meantime, the majority of the scientific team has arrived in Limassol, boarded the RV Meteor, and settled into their cabins. Many of the scientists have not sailed on this ship before, so they have been discovering the vessel and getting accustomed to life onboard.

The main aims of the research cruise EMS-PS ('Eastern Mediterranean Sea – Process Study') are to (1) investigate the chemical and biological factors regulating ocean productivity and sinking flux of carbon into the deeper sea (a process termed the 'biological carbon pump') and (2) to investigate near-surface sediments that record environmental changes in the region over the past few thousand years. To achieve these aims we have 28 scientists onboard with a wide range of expertise, including physical, chemical, biological oceanography, and sedimentology. Our study area in the Eastern Mediterranean Sea is a region that, despite its close proximity to land, has extremely low ocean productivity due to low nutrient availability. This is similar to open ocean regions in the subtropics, which span ca. 40% of the Earth's surface. However, unlike these open ocean regions the Eastern Mediterranean Sea is much more strongly influenced by human activities and is experiencing more rapid warming. This makes the region a natural laboratory to better understand how such regions operate under conditions that are expected to become more widespread in the future.

Our scientific team onboard includes chemists, biologists, and geologists from GEOMAR Helmholtz Centre for Ocean Research Kiel (Germany), the University of Haifa and the Israeli Oceanographic and Limnological Research centre (IOLR) (Israel), Cyprus Marine and Maritime Institute (CMMI, Republic of Cyprus), Xiamen University (China), and the Marine Biological Laboratory (USA).

We are very thankful to Captain Apetz and all the crew for providing us with a warm welcome and assisting us in our arrival to the ship and some initial preparations. Whilst we are disappointed not to be underway with our research cruise as planned, we are being well taken care of with excellent food and positive mood.

With best regards from the Port of Limassol,

Tom Browning and the M197 research cruise participants

