

Meteor cruise 84/3: Repeat hydrography in the Mediterranean Sea



3rd Weekly report for the Meteor cruise M84/3

Istanbul – Vigo, April 5, 2011 – April 28, 2011

The third week of scientific work on cruise M84/3 has focused on CTD station work in the Tyrrhenian Sea and in the main western basin of the Mediterranean Sea. The week started with the transit from the Ionian Sea to the Tyrrhenian Sea through the strait of Messina. The passage took place in very nice weather on the afternoon of the 18th, and afterwards the chef treated us with excellent food directly from the grill on deck as the sun went down behind the volcano on the island of Stromboli. Early the next day we had arrived to our first station in the western half of the Mediterranean Sea where we started with the CTD work again.

Also in the Western Mediterranean we are conducting an intense measurement program. All the instruments are working nicely and we are able to collect a comprehensive data set that will help to better understand the recent changes in the deep water characteristics of the western basin. Preliminary data from the transient tracer group confirms the active deep water formation also in this basin. The section we have been doing from the Tyrrhenian Sea to the Strait of Gibraltar is similar to a section that has been worked by an Italian team the last 5 years, but that will not be occupied this year (by them). Our measurements will thus be complementary and we will compare our results in this region.



Mor Feldman from the Hebrew University of Jerusalem, Israel, and Valenti Rodellas from Universitat Autònoma de Barcelona in Spain are preparing for the large volume sampling of surface seawater for the measurement of Radium that they perform on several of the stations.

This cruise on the Meteor has been informally coordinated with a cruise on the Italian vessel RV Urania that is currently operating in the Ionian and Tyrrhenian sea and the German research vessel Poseidon that will be operating in the Adriatic / northern Ionian Sea in early June. The three cruises has adjusted their respective cruise tracks to better complement each other, and additional measurements on the Urania and Poseidon will be carried out to complement their programs. This informal cooperation is called MUPMET, which stands for Meteor-Urania-Poseidon MEDITerranean Transects and is a good example for how scientists come together in order to optimize the use of resources.



The Meteor is really hosting an amazing array of high tech instruments that never cease to surprise us. Here is the fantastic electric-easter-egg-painting-maschine; operated by Paul Dölling in preparation for the Easter celebrations on the Meteor.



Watch that wave! Sampling for tritium in rough seas.

So far during the cruise we have experienced a variety of different weather systems, but on no instance was the weather so bad that it influenced the scientific sampling program.

At the moment we are approaching the Strait of Gibraltar, something that we can easily notice due to the increased traffic of vessels in the area.

In the name of all the participants, best regards from the Meteor,

Toste Tanhua

Meteor, Sunday April 17, 2011.