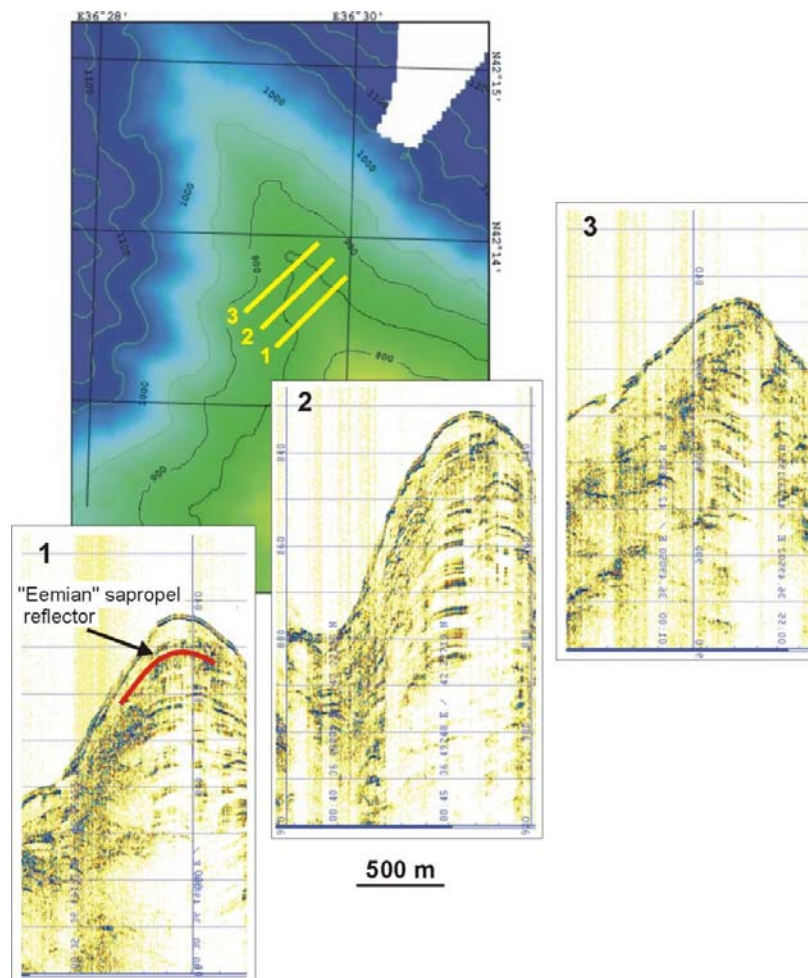


Meteor cruise M 72/5
Third Weekly Report, period 29th May – 04th June



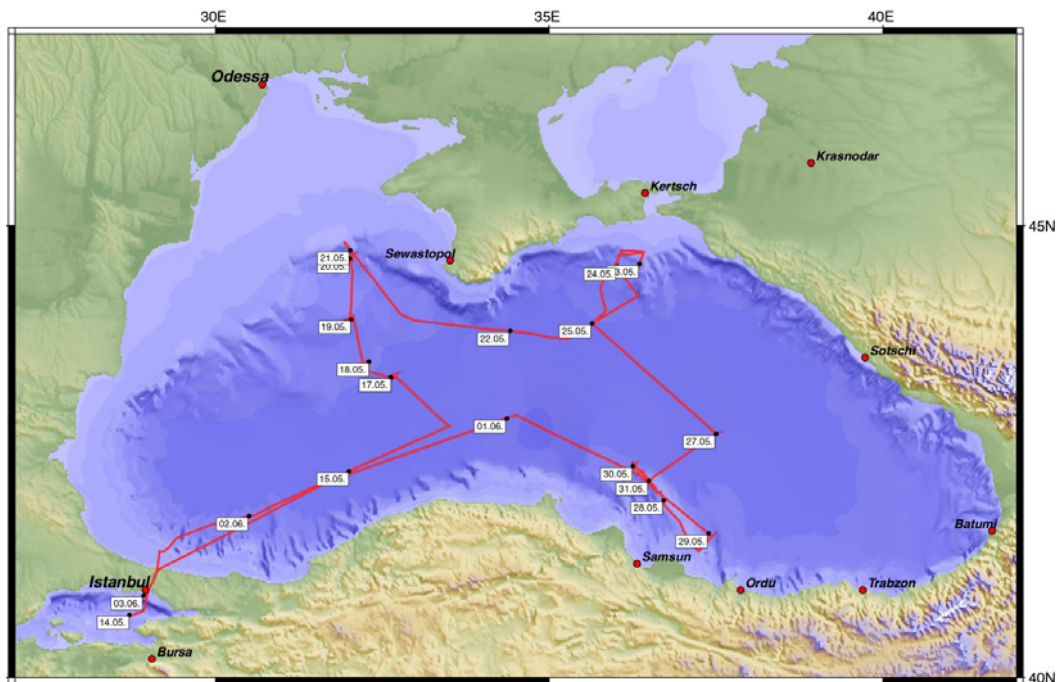
In the beginning of week three, we continued our regular program for working area four of leg M 72/5 in the south-eastern Black Sea. This meant more stations for water column work in the rim current and a number of sediment coring stations in various depths along a tectonically formed ridge extending from the shallow shelf into the deep eastern basin (see weekly report 2). After finishing this on Thursday 31st May, we returned to the 850 m station on the ridge where we took some 15 hours to specifically “hunt” for the “Eemian sapropel” that we had recovered in a gravity core on 28th May.



Bathymetry of the “Eemian sapropel location” and Parasound profiles across the ridge.

Initial Parasound profiles across the ridge showed a strong reflector in around 8 m depth below sea floor most probably indicating the target sapropel layer. The horizontal extension of this reflector was restricted to a small area on the top of the ridge, while it was absent on the slopes indicating that this layer may have slumped

away during earlier tectonic events. By using a 15 m long gravity core tube, we recovered two more cores containing the highly desired sapropel layer. In both cases, this layer was thinner than in the first core indicating that the newly recovered sapropel was incomplete. This matched the interpretation of the Parasound profiles. A third core located more towards the slope of the ridge in which the sapropel layer was only 5-cm thin confirmed this interpretation.



Complete track of M 72 cruise leg 5.

With this successful coring we finished our work on the ridge and headed into the central Black Sea for another water column station with CTD and pump-CTD casts. In the afternoon of 1st May, we ended our regular station work program and started our way back to Istanbul. During the transit, we stopped at five positions and completed the western part of the pump CTD cast transect which we had started in the beginning of the cruise (see weekly report 1). We passed the Bosphorus at noon time of the 3rd June and waited in the Marmara Sea for harbor clearance in Ambarli port, where we finished our successful cruise in the next morning of the 4th June. Sample processing from the last transect continued to the last available second as the containers for return transport were simultaneously packed for shipping back to Bremen. We thank Captain Jakobi and the Meteor crew for their support which contributed significantly to our success.

We are all in good health and send our best wishes.
 Christian Borowski and the M 72/5 shipboard party.
 04. June 2007