

SO239 – Weekly Report 6

19.4.2015 – 30.4.2015

We arrived the last working area of our cruise in the morning of the 19. April. The International Seabed Authority declared recently 9 Areas of Particular environmental Interest, or APEIs. In this areas no nodule mining will take place, and the biodiversity should be preserved. Each area has an extension of 400 km x 400 km. They are composed of a center area of 200 km x 200 km and a buffer zone of 100 km around it. The location of these areas was chosen in order to maximize the representation of different regional environmental conditions. However, the fauna living in these areas has never been studied. It is not known if the fauna present in the APEIs is similar to the fauna of the manganese nodules fields. In order to get some first insights, we went to the APEI no 3, to the north of the Clarion Fracture Zone. Two weeks earlier our colleagues of the cruise Abyssline has been studying for the first time the APEI no 4.



Fig. 5 Ein großer Schwamm am Seeberg. A large sponge at the seamount

There is no existing detailed bathymetric map from these areas, so we started our investigations with a Multibeam survey and a CTD.

The sediments collected by Boxcorer, Multicorer and gravity corer deployments was quite different from that of the central nodule areas. They were more compacted and sticky. On the surface we found small nodules.

Two ROV dives gave us a better picture of the seafloor. There is a very heterogeneous mixture of small and medium size nodules and some large basalt rocks. On the nodules we found quite few number of animals. We were able to collect some sponges, soft corals and brittle stars. At first look seems that many of the animals we have seen here were not recorded in the nodule fields.

On April 24th, after 3 EBS deployments and 3 AUV dives and we finished the sampling on the plain and moved to a large nearby seamount. On the seamount we also took some samples and made some video transects

An additional Gravity Corer was cancelled because of wind and raw sea. On the morning April 25th we left the area direction Mexico. All in total count 214 gears operations during this cruise.



Fig. 6. Eine schwimmende Seegurke. A swimming holothurian

In the morning of 30th April we arrived in Manzanillo. A long but very successful cruise came to its end.

Gez. Fahrtleiter Pedro Martinez Arbizu