

MSM75

Weekly Report #4

16.07.2018 – 22.07.2018

Following another week full of work and discoveries, the cruise is already over halfway done. The week was dominated by those typical small adventures which make up a scientist's life. While the geology team were busy interpreting the results of the seafloor mapping and observation, the biology team were using those same maps and the ship's underwater positioning system to perform precise sampling of the seafloor fauna.



Abbildung 1: The biology team at work (from left to right): Recovering the van Veen grab full of sediment; sieving the sediment to pick out the animals; "Berta" the epibenthic sled coming on board with a sample (photo credits: Saskia Brix & Anne-Helene Tandberg).

When the Van Veen grab comes up we know what type of seafloor to expect when we deploy "Berta" – our epibenthic sled. "Berta" is the oldest sled which the Senckenberg am Meer Institute owns. This week she was dragged through canyons on the Reykjanes Ridge, over table mountains underwater and across former volcanoes, reliably recovering samples. The most spectacular deployment this week was on one of the two flat-top volcanoes flanking the ridge which we called "Thor's towers" in reference to the film "The hunt for Red October". Just before Berta was lowered to the eastern "Tower", GEOMAR's AUV „Abyss“ had passed between them looking for signs of hydrothermal activity.

Although we have yet to find the long-awaited „black smokers“, we have found lots of cold-water corals, especially during two dives of the ROV „PHOCA“ on the flanks of a volcano at the beginning of the week. As a result, these geological exploration dives turned into excellent sampling expeditions for the biologists, returning lots of associated fauna for which the corals provide a unique habitat. There were occasional shouts of joy from the biology labs as the samples were examined and one of the experts on board found a new species in her favourite animal group – these will need to be given new names after the cruise.



Abbildung 2 (von links nach rechts): Foraminifere (Foraminifera), Tiefseeassel (Isopoda: Aegidae), Borstenwurm (Polychaeta: Spionidae), Muschel (Bivalvia), Seestern (Asteroidea)

So we didn't just follow in the steps of „Red October“ in this fascinating week of science but also boldly went to habitats which no-one had seen before!

In the name of all cruise participants we send greeting to all on land

Saskia Brix, Co-PI MSM75