RV MARIA S. MERIAN MSM77

5th Weekly Report 08 - 13

October 2018

On the way home!

On Saturday, October 6th, we set sail for the long way home - first destination: Edinburgh. Here we will arrive in the late afternoon of October 12th, use the evening for a short sightseeing tour of the city, and then fly back to Germany the following day.

The last days of this expedition were characterized by the general cleaning up. All equipment and laboratory instruments used during this cruise were dismantled and stowed in boxes and containers. Samples were preserved for later examinations, data collected during this expedition was saved - and in parts already evaluated. Finally, all laboratories and other working areas were intensively cleaned so that the following groups could find clean working conditions on their journey, just as we did at the beginning of our leg.

On the way out of the study area of this expedition we made a short stopover near the volcanic island Jan Mayen northeast of Iceland. Colleagues from the European infrastructure project "Euro-Argo" had asked us to recover a malfunctioning drifting system (float) sought to repeatedly submerge into greater water depths (see Figure). "Euro-Argo" is part of the international "Argo" program of the World Meteorological Organization (WMO), the Global Ocean Observing System (GOOS), and the Intergovernmental Oceanographic Commission (IOC) initiated in 1999. "Argo" is a global network of more than 3500 autonomous instruments which are drifting on and in the world ocean to register physical properties in the water column and to transmit the data via satellite connections to a huge group of users.

Since the float reported its position via satellite at short intervals, we were able to spot it rather quickly. The recovery of the narrow and only about 1.5 m high cylindrical device with 7-8 Beaufort and waves up to 4 m in height turned out to be less problematic than initially assumed. Of course, a zodiac could not be used for the recovery under these conditions. Thanks to the excellent manoeuvrability of the ship (see also the previous weekly report) and the skill of the ship's command it was finally possible to steer the ship so close to the float that it could be "caught" by the deck crew with a long rod and a sling attached to it (see Figure). There was great relief both, on board and at the "Euro-Argo" headquarter, when the instrument was finally recovered. Following the cruise, the instrument will be sent to the Operations Centre in Brest (France) for repair and later use.

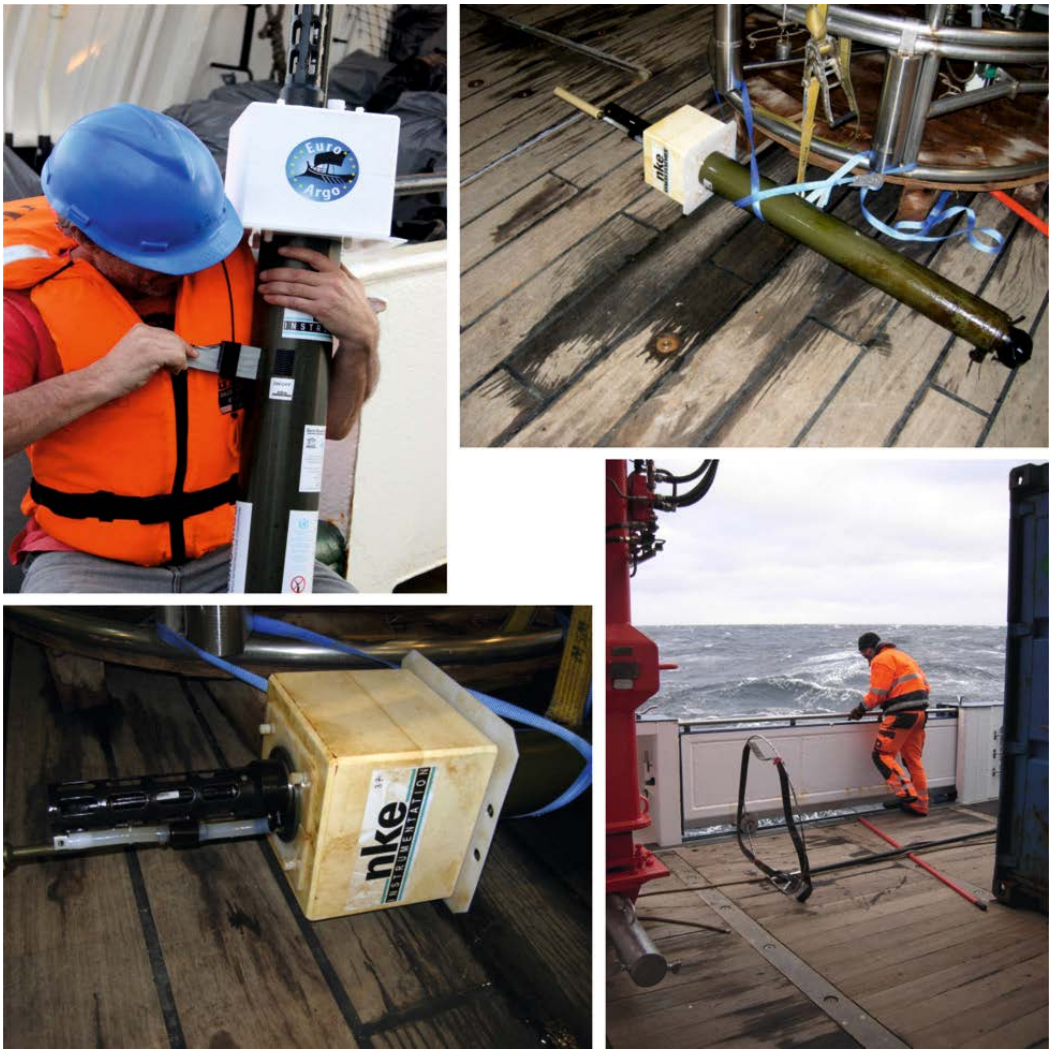
For 20 years now we are visiting our HAUSGARTEN in the Fram Strait, where we document natural variabilities and the effects of Global Change on a polar marine ecosystem. During this

year's expedition, autonomous underwater vehicles were repeatedly deployed in the water column and on the seabed. In addition, free-fall systems, water and sediment samplers, drifting sediment traps and various camera systems were used. None of this would have been possible without the great seamanship of the deck crew, the professional support of the ship's technical staff, the excellent skills of the nautical officers and - not to forget - the always friendly and attentive care of the stewardess and the cooks.

We would like to thank Captain Ralf Schmidt and his crew for their hospitality, the trusting cooperation and the great atmosphere on board - and we are looking forward to our next expedition with Maria S. Merian!

In the name of all participants,

Thomas Soltwedel



Recovery of an Argo-float off Jan Mayen (copyright: Deep-Sea Research Group, AWI).