

**PS82 - (ANT-XXIX/9) - Weekly Report No. 2**  
**From Neumayer Station to the Filchner Trench**  
**December 30, 2013 - January 5, 2014**



Fig. 1: Unloading RV Polarstern at the shelf ice edge, Atka Bay, near Neumayer Station III. © Astrid Böhmer, AWI

On Sunday Dec. 30th POLARSTERN reached the shelf ice edge in Atka Bay. Luckily we could proceed from Cape Town to Atka Bay without being affected too much by heavy wind and ice conditions. Due to consequent ice observations with our helicopters we always found the most appropriate 'streets' through the ice.

The supply of the Neumayer Station was carefully planned from ship and station and the transfer of various cargoes from ship to the ice and Neumayer thus took place very successfully. After just one and a half days the whole operation had been finished and all people on board were happy for more space as it was urgently required to set up for experiments in labs and containers.

At 15:00 p.m. on the 31st of December POLARSTERN left the shelf ice edge and tried to escape from the dense sea ice covered Atka Bay. After some ice breaking activities the ship reached the ice free polynia in front of Atka and headed SW along the shelf ice edge. Excellent weather conditions with bright sunshine created impressive scenery for the last hours of 2013. We celebrated this with a magnificent barbeque on the working deck and a reception on the bridge at 24:00 o'clock. The midnight toast for 2014 at bright sunshine appeared somewhat strange for most of us but we all enjoyed it.

A helicopter ice survey performed earlier in the afternoon made clear that we most likely could not start our scientific program as planned in the Austasen area due to 100 % ice coverage between the grounded icebergs. At this time of the expedition we should not spoil our valuable fuel, because we expect heavy ice coverage in the Filchner Trench area and the master therefor has a careful eye on the daily fuel consumption. We passed Austasen hoping to be able to do the planned work on our way back and went directly to our 1st station in the northeastern part of the Filchner Trench, where we arrived without problems early on the 3rd of January. Despite sea ice coverage we managed first hydrographical measurements with our CTD rosette, deployed two moorings, one for oceanographers and one for the biologists, and the bottom trawl provided a diverse and colorful first catch for the impatient biologists on board. This catch provided material for studies in genetics and physiology, and allowed some first insights into the benthic community structure. Live fish rescued from the nets are now to be seen in the aquaria. Multi-net and the Rectangular Midwater Trawl (RMT) provided additional samples from the pelagic realm and yesterday we also could successfully deploy our ROV, which provided nice pictures from the benthic fauna, living on the shelf of Halley Bay in ca. 400 m water depth. The ice physics and seal biologists suffered a bit from the rather weak and brittle ice in the area of our first stations, but today they finally, too, succeeded in getting their first results in form of ice cores and helicopter based seal counts.



Fig. 2: Submarine shot from sea floor communities showing various echinoderms. © Louise Federwisch, AWI



Fig. 3: Working on ice. © Horst Bornemann, AWI

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