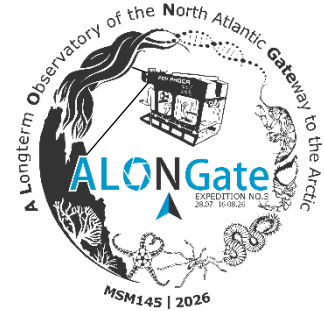


Expedition MSM145 ALONGate3
Reykjavik – Reykjavik
Weekly Report No. 3
09.08.2026 – 16.08.2026



"You should stop when things are at their best."*

** German proverb*



Figure 1: Left: A “garden” of *Umbellula encrinus* (Linnaeus, 1758) was already visible during the OFOS dive, shown here is a close-up of a specimen filmed in 4K detail. Right: One of numerous dropstones off the coast of Greenland, serving as a “miniature community” with diverse encrusting organisms. The 4K zoom capabilities allowed for a detailed view of the tiny organisms hidden among the megafauna, which are clearly visible in the image. Photos: ROV PHOCA

Following the successful sampling of the Grímsey hydrothermal field, the next highlights for the biologists on board were dropstones located on the plain off the coast of Greenland at a water depth of approximately 1,700 meters. The study area at 69°N marks the western end of the ALONGate deep-sea transect (running west to east) and serves as a comparison site for the eastern end sampled during expeditions PS148 and PS155. The work we carried out at these stations will be continued during the follow-up expedition, ALONGate4; we hope to return in the summer of 2028 to sample the entire transect, which runs as a southern parallel to the AWI HAUSGARTEN (see: <https://www.awi.de/forschung/biowissenschaften/tiefsee-oekologie-und-technologie/observatorien/lter-observatorium-hausgarten.html>).



Figure 2: From left to right: Icebergs off Greenland at 66°N; overhead view of whale bones at Anton Dohrn Bank; close-up of a whale bone encrusted with sponges, soft corals, and bryozoans. Photos from left to right: ©Solvin Zankl, OFOS/Lilian Böhlinger, ROV PHOCA

On August 12th, 2026, we transited to the final study area: the Anton Dohrn Bank. As the icing on the cake, during our first OFOS dive in this area, we discovered a whale skeleton that had been resting at a depth of approximately 300 meters for an estimated 50 years or more? This chance discovery was a stroke of luck for our expedition's final ROV operation, allowing us to conclude the MSM145 cruise on

yet another high note. We had started by deploying artificial coral reefs, moved on to intact cold-water corals in the second study area, passed through regions shaped by fishing activities en route to the Grímsey hydrothermal field, and after successfully deploying all three BLOS (Benthic Lander Observatory Systems), we headed to Greenland, where we encountered a field of icebergs...

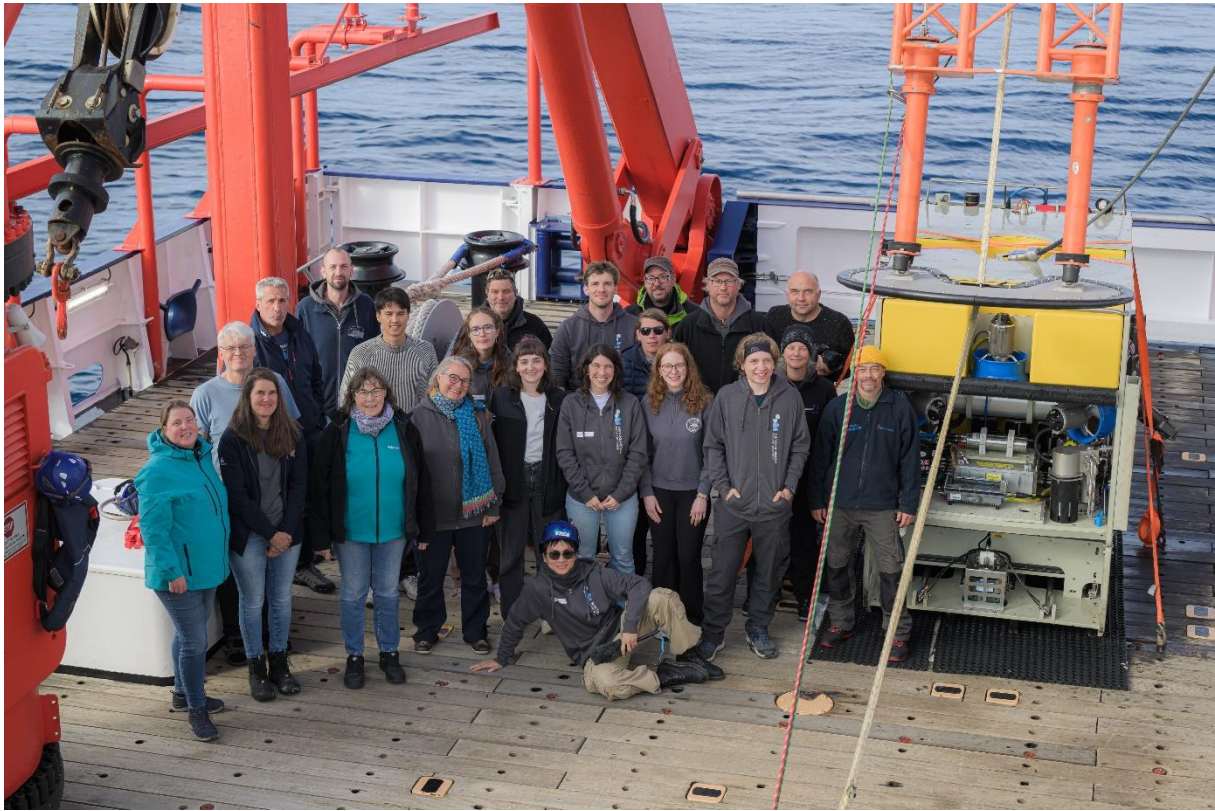


Figure 3: Group Picture of the Scientific Crew of MSM145. 1. Row from left to right: Saskia Brix, Stefanie Kaiser, Karen Jeskulke, Anne-Helene Tandberg, Lilian Böhringer, Lara Baptista, Katharina Kohlenbach, Gregor Wöhle, Patrick Cuno; 2. Row from left to right: Stefán Ragnarsson, Viktor Wu, Josephine Gäng, Franziska Iwan, Inken Suck; 3. Row from left to right: Maik Wilsenack, Hauke Pape, Martin Pieper, Jan Neumann, Torge Matthiesen, Hannes Huusmann, Solvin Zankl; sitting in front Zhehao Hu next to ROV PHOCA off Greenland. Photo: Klaus Bergmann

We were never bored! On the contrary: the time on board flew by. After what felt like well over 20 days at sea, a period that was intense, exciting, and successful, thanks to a fantastic team and outstanding support from the Merian's crew, we are now heading back to the port of Reykjavik. It was a journey full of highlights, defined by the weather and spectacular natural phenomena. Deeply impressed by a solar eclipse witnessed amidst the fog and icebergs off the coast of Greenland on August 12, 2026, the scientific team sends greetings from aboard of RVMerian:

Thank you to everyone who made this expedition possible!

August 16th, 2026, RV M.S. Merian

Saskia Brix
Senckenberg am Meer,
German Center for Marine Biodiversity Research,

University of Hamburg
Institute for Marine Ecosystem and Fishery Science