



WEEKLY REPORT – from November 23rd to December 5th

There has been a week now since the *Polarstern*, the research ice-breaker from the Alfred Wegener Institut left Cape Town, heading South to the German Antarctic station of Neumayer, established on the quadrant facing Africa.

On the 29th of November, the water temperature finally dropped from 3 to 0°C, signalling the crossing of the Antarctic Convergence, this contact zone between the cold waters of the Southern Ocean completely surrounding and the warmer northerly water masses of the Atlantic. This was also well illustrated by the zonation of tubenose seabirds, with some species vanishing from sight while appeared Antarctic classics like the Southern Fulmar and the Cape Petrel.

On the 30th, while we passed 30 miles off Bouvet, the most isolated island of Planet Earth, we greeted the first sight of an iceberg, an event especially awaited by those “going South” for the first time.

The last 5 days have seen the wind maintaining its level at or above 6 Beaufort, and it contrast nicely with the beautiful weather we had on the evening of our departure. This allowed spectacular views of the famous Table Mountain above the city of Cape Town, and also of a small group of passing humpback whales. It is also during these early hours of sailing that the new satellite communication system was tested successfully.

To take advantage of the good weather, Saturday was the day of the traditional unpacking of all scientific equipment. It gave the opportunity to attribute the working space to all teams, spread between two chemistry labs, five dry labs, the winch control room, the big wet lab near the working deck, the big fish lab and 3 cold containers one floor below.

The clement weather also gave a first window of opportunistic cetacean survey to our “whale team”, Meike Scheidat & Linn Lehnert, with the first sighting of the Antarctic Minke Whale, one of their target species.

On the early morning of Monday, Enrique Isla & Christian Bock deployed two buoys “Carioca” for their French colleagues from the “Laboratoire Oceanographique” from the Université of Paris VI. These so-called drifters will constantly monitor sea temperature, salinity, carbon dioxide content of the water, wind speed and atmospheric pressure. These parameters are then sent by satellite and will allow deriving the air-sea carbon dioxide flux. Since then, Dr Jacqueline Boutin has confirmed that the buoys were sending their data and working properly.

Finally, the main continuous scientific measures were taken by Jan-Hendrik Lott & Elena Pugacheva, our bathymetric duo. The hydrosweep echo sounder they are using was recently repaired, and has needed a calibration session on Monday to be fully operational again. Since then, their shifts have allowed high-quality mapping of the sea floor, providing new data to the ongoing atlases GEBCO & IBSCO.

[Link to previous news releases from the Polarstern](#)