# Floating Summer School Onboard RV Polarstern Expedition



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On 30 August, 14 young investigators from around the globe departed from Bremerhaven, bound for Cape Town. During the cruise, known as the North South Atlantic Training Transect, they will gain valuable insights into the marine sciences and conduct brief projects on the interactions between the ocean, atmosphere and climate. They will take with them three mini-boats constructed by

schoolchildren from Germany, Ireland and Spain, containing instruments to measure the air and water temperature.

The vision behind the Ocean Decade is to employ science to shape sustainable use of the ocean, preserving what we will need in the future. This can only be achieved by finding solutions for sustainable development that bring together human beings and the ocean. With these goals in mind, the current *Polarstern* expedition will focus on data collection, training young researchers, and increasing awareness for the following <u>UN Ocean Decade</u> Outcomes: a healthy and resilient ocean, a predicted ocean, an accessible ocean, and an inspiring and engaging ocean.

#### **Training Young Investigators From Across the Globe**

"During our expedition, we will train young investigators hailing from 14 different countries to become experts on marine sustainability research," explains expedition leader Prof. Karen Wiltshire, a biologist at the <u>Alfred Wegener Institute</u>, Helmholtz Centre for Polar and Marine Research (AWI) facilities on Sylt. Human wellbeing, sustainable development and economic growth all depend on a healthy ocean. "The more scientific experts there are around the world, the better we'll come to understand our ocean, which will ultimately allow us to use it more sustainably and preserve it," Wiltshire explains. She will hold the reins for the fourth instalment of the Floating Summer School: the training was also offered in 2015 and 2016 during the *Polarstern*'s north-to-south transit (North South Atlantic Training Transect (NoSoAT)), while in 2019 it took place during the south-to-north transit from Port Stanley (Falkland Islands) to Bremerhaven (South North Atlantic Training Transect (SoNoAT)).

## **Combining Data Collection and Training**

The successful training programmes conducted in past years have shown that data collection and training for young investigators make for a winning combination. The young investigators use the measurements taken from various regions of the Atlantic along a north-to-south transect as part of their training. In this regard, they are supervised by an international team that includes experts from the Max Planck Institute for Marine Microbiology in Bremen, the National University of Ireland in Galway and the University of East Anglia (UK) – another indicator that global problems can only be overcome by working together. Once onboard the *Polarstern*, working in small groups, the young investigators will spend several days each working on various topics concerning the climate system, oceanography, the atmosphere, microorganisms and bathymetry, as well as data processing. When combined with satellite-based observation, the data gathered onboard will allow them to view their findings in a global context.

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RV Polarstern in Bremerhaven, Germany. (Photo: Johannes Lemburg)

### Science and Schoolchildren

In addition, their training will focus on science communication. Accordingly, the participating young researchers will regularly report on the expedition via social media. Schoolchildren from Spain, Ireland and Germany's Helgoland have contributed small monitoring boats, which will be deployed in the Atlantic from onboard the *Polarstern*. These so called mini-boats will subsequently transmit temperature data directly via satellite to the non-profit organization Educational Passages, partner of the <u>Partnership for Observation of the Global Oceans</u>

(POGO), the organization leading the initiative. Participating schoolchildren will have front-row seats for the expedition: video livestreams to activities onboard are planned, while a website will offer them data from 'their' boat and provide the basis for further discussion of related topics in the classroom.

After leaving port with the afternoon high tide on 30 August, the *Polarstern* will first set course for Rotterdam, where she will bunker for fuel. Roughly a month later, in late September, the ship is expected to reach Cape Town, where after a brief call to port she will continue south: from early October to mid-December, a two-stage expedition will investigate biogeochemical material flows near Southern Georgia. Shortly before Christmas, the *Polarstern* will embark on an 11-week cruise with a geoscientific focus in the Bellingshausen Sea. There will be another summer school during the ship's return transit before she returns to her home port of Bremerhaven in April 2023.

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Schoolchildren build a miniboat on Helgoland called Schnelle Welle, which will be launched from Polarstern in the Atlantic in September 2022. (Courtesy: Uwe Nettelmann)

https://www.hydro-international.com/content/news/floating-summer-school-on-board-of-rv-polarstern-expedition