

Diversity in Polar Science Initiative

Polar Horizons

March 16th 2020

AURORA Innovation Centre, British
Antarctic Survey



Meeting report



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Executive Summary

Polar Horizons is part of a series of activities within the Diversity in UK Polar Science Initiative that mark the 200th anniversary of the discovery of Antarctica. Conceived and funded by the UK Foreign & Commonwealth Office Polar Regions Department, this initiative celebrates existing diversity, and takes an important step forward to promote and enhance Antarctic science opportunities to under-represented groups, including women, people from ethnic minorities, BAME, LGBTQ+ community and people with a disability.

Launched in March 2020 at British Antarctic Survey's Aurora conference centre, the Polar Horizon series of talks and webinars introduce students and early career scientists to the breadth of opportunities in polar science.

Twenty-two bright and capable STEM students and early career researchers joined scientists and engineers from BAS and the Scott Polar Research Institute to launch the program. Students, selected from a large field of applicants, came from currently under-represented groups (identifying as with selection requiring achievements in academic and social areas as well as an active interest in Polar science and engineering).

This report describes the launch event that took place at British Antarctic Survey just as the the Covid-19 pandemic locked down the survey's Cambridge Offices. Subsequent events are online using webinars.

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Introduction

In March a selected group of 22 students met at British Antarctic Survey's Aurora Conference Centre for the first of a series of introductions to Polar science from current UK perspectives. This event marked the launch of the Diversity in UK Polar Science Initiative, by Stuart Doubleday, Deputy Head of FCO's Polar Regions Department. The initiative commemorates the 200 years since British explorers first sighted the Antarctic peninsula in 1820. He spoke about how much the community of those who study the white continent has changed since the days of the explorers.

Professor David Vaughan, Director of Science at BAS, welcomed the students and shared his journey in science and the opportunity he took to study polar science. He also discussed gender diversity over the years at BAS, and how the organisation is on a journey to have the scientists reflect the social demographics of the United Kingdom.

Following next, Dr Michael Bravo, former Acting Director of SPRI, captivated the listeners with his journey through engineering into social science and the special importance of Polar Regions in regards to climate and sociology. He reflected on the wider UK Polar science community and encouraged the students to look at the history of polar studies but also to take their own journey and follow their interests.



Dr Michael Bravo from Scott Polar Research Institute

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Head of BAS ice core team Liz Thomas talking about her team's work.

The final speaker of the day was Amelie Kirchgaessner, an experienced BAS atmospheric scientist, who shared her very exciting recent adventures with the Mosaic project (<https://mosaic-expedition.org/>) in the Arctic polar region. She discussed intersectional science and the global community working on large science projects as well as discussing the diversity and inclusion perspectives and the impacts on accessibility.

After the introductory talks, the students were taken on a tour of polar science facilities. They had opportunities to discuss science and polar logistics with Ice core groups, listen to the bursting gas bubbles from samples collected in Antarctica—helping them connect with the efforts it takes to gather the scientific samples and then analyse and report on them.

Touring the building

The students also gained rare access to the BAS archives, housing UNESCO World Heritage, where generations of data in different formats are stored, preserved, documented and digitally made accessible to develop more sustainable use of pre-existing materials. The students got hands on with the BAS geological and fossil collections and learned how these samples are used in research and understanding the past.



BAS Marine Biogeographer Huw Griffiths talks about the Antarctic wildlife

At the end of a packed day, the students had the chance to meet with the polar scientists who they were paired up with. These matches were made according to academic area of expertise, and these STEM professionals generously volunteered their time to discuss polar

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science. The day ended with a great social gathering of students and polar researchers that further strengthened the network between the cohort of students and the project team.

Student feedback

"The Polar Horizons event was eye-opening in many ways for me. As a woman of colour, I don't often get to meet women like myself in the marine science industry. Initial speeches from staff and others really highlighted the racial imbalance in STEM and the importance of a diverse workforce. Hearing the stories and journeys of minority individuals is vital, and this event marked the first time that I have had the opportunity to. Spending only a day with BAS staff and the Polar Horizons community had a profound impact on me. Meeting our mentors allowed us to connect with professionals with similar scientific interests in a casual setting. I instantly felt a connection to the community, which remains to this day through Zoom calls and WhatsApp messages. I am amazed at how such a short amount of time with strangers has led to such a strong source of support in both my personal and academic life. BAS have provided a safe space for uncommon voices like mine to be heard. More events like Polar Horizons should be held so that individuals from all backgrounds have the opportunity to meet and encourage one another, like we have."

Thanks for the opportunity!

Kind regards, [REDACTED]

"In March I had the chance to participate in the Polar Horizons project as part of the Inclusion Programme held at the British Antarctic Survey. I have always had a strong passion for our climate so I was drawn to the British Antarctic Survey for their world-leading research in the dynamics of polar ocean-climate systems to understand their role as drivers of future climate change.

During the programme, I listened to many distinguished BAS research scientists on how polar research is carried out, the Rothera Antarctic research station and the impacts of the changing Antarctic Ice sheets to global sea levels. This was followed by a tour of their facilities, mainly the geological collections and archives center.

The Polar Horizons project offers an invaluable opportunity to explore and get a hands-on experience in various fields of polar science. Coming from a geological background with an interest in micropalaeontology, it has given me a better idea of how my interests can be utilised within a polar context so events like this in the future would be hugely beneficial for many STEM student and early-career practitioners. Possibly my most memorable experience was the opportunity to meet many like-minded undergraduates, postgraduate and PhD

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students from similar academic backgrounds and ambitions, with many of us still in contact even after the programme.

■■■■ Palaeobiology MSc Graduate at the University of Bristol

“That day at BAS was a huge discovery, not only of the science and programs, but of the professionals, researchers and young people who are dedicating their professional careers towards the understanding of Polar Science. It was inspiring and thrilling to know so many individuals from so many different backgrounds but with a common passion, the Poles. I enjoyed every bit of it, and I am grateful to belong to such an interesting network. I hope that one day I can participate in such relevant projects and do my bit to understand climate change and help people with the application of that knowledge.”

Next steps

Unfortunately, due to the onset of COVID-19 restrictions, the Polar Horizons mentoring programme was cut short and hands-on mentoring days with polar scientists had to be postponed. The intention is to maximise the online contact between the students and polar scientists, to encourage and support them in a journey where they consider a future in Polar Research.

Discussions during the programme highlighted that barriers exist for students from underrepresented groups to enter into polar science, such as the scarcity of relevant role models, which require additional effort to overcome. The effort to introduce BAME, LGBTQ+ and disabled students to polar research enriched the working environment and indicated that the efforts to attract a wider range of students offers rewards of diverse thinking and the possibilities of innovative science.

The Polar Horizons team 2020 hope to reconnect the students and polar scientists when non-virtual meetings are possible again. In the meantime they have developed an online outreach program to introduce the students to the wider group of scientists they would have met during the rest of the Polar Horizons week, and to the UK Polar science professionals who are interested in increasing diversity in UK Polar institutions.