



2021 REPORT FOR THE FIRST STAGE OF THE DIVERSITY IN POLAR SCIENCE INITIATIVE



2021 Report for the first stage of the Diversity in Polar Science Initiative

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PURPOSE

This report has been written for an internal polar community audience and is directed to the Diversity in UK Polar Science Initiative (DiPSI) steering committee. It aims to highlight the outcomes over the time frame of the DiPSI project, September 2019 – March 2021, and how those can be built on. It will also offer comment on how activities were carried out for this project and how this experience can be used by others.

EXECUTIVE SUMMARY

The Diversity in UK Polar Science Initiative has been successful in some key areas of engagement and impact. Completion of the first survey regarding racism in the polar community is a ground-breaking moment and should be heralded as a major accomplishment. The Polar Horizons projects have been resounding successes with engagement of over 150 UK students from underrepresented groups across Black, Asian and Minority ethnic (BAME), LGBTQ+ and disability who were introduced to polar research. The engagement of allies and active partners across the UK polar research community is heartening and will be needed to advocate further change on issues now identified.

INTRODUCTION

As part of a series of activities and initiatives to mark the 200th anniversary of the discovery of Antarctica, the Diversity in UK Polar Science Initiative was conceived and funded by the UK Foreign, Commonwealth and Development Office (FCDO) Polar Regions Department, initially for the period of September 2019 to March 2021. It has celebrated existing diversity and has taken an important step forward to promote and enhance Antarctic science opportunities to underrepresented groups, including women, people from ethnic minorities, BAME, LGBTQ+ community and people with a disability.

For over 100 years since its discovery, visitors to Antarctica were overwhelmingly men. It was not until the 1980s that the first British female scientists began working at the frozen continent. The ambition for this initiative has been to deliver a more diverse and inclusive future for UK polar science — a future that reflects the diversity in British society today.

To work towards this, the initiative had planned key areas of impact with projects, advocating engagement across the UK polar community to encourage conversations around present culture and values and to highlight the need for action to address the lack of diversity. A data analyst/project manager was appointed in September 2019, to analyse current workforce statistics and assess representation across those engaging with Antarctic science in the UK. Although initial data was patchy, it was clear that diversity in UK Antarctic research is not representative of the UK population.

The initiative chose to broaden its remit beyond Antarctic collaboration and changed to a polar focus so that the community of Higher Education Institution (HEI)researchers that deal with polar science and operations could all be included.

Steering committee meetings, typically conducted once per month, were initially held in person and later on Zoom. These forums allowed for discussion regarding data analysis, survey results, the discussion of project initiation and delivery, and the decision-making platform. All minutes and action lists from the 18-month timeline are archived on the BAS <u>Teams page for the DiPSI project</u>.

INTERNAL PROJECT PARTICPANTS

Steering Committee

The steering committee was composed of representatives with key insight into diversity in the UK polar community who could provide pertinent opinion to ensure the Initiative was relevant in order to deliver successful projects. These included: the funding body FCDO, senior level representatives from the UK polar community, BAS management stakeholders, international polar organisations, minority researcher representatives, minority student representatives, support project team members from internal UK polar community, Natural Environment Research Council (NERC) and UK Research and Innovation (UKRI) Equality, Diversity and Inclusion (EDI) representatives and the project manager.

STEERING COMMITTEE			
NAME	ORGANISATION	TITLE / ROLE	
Jane Rumble	Foreign, Commonwealth and Development Office (FCDO)	Head of Polar Regions Department (Chair)	
Bea Schlarb-Ridley	British Antarctic Survey	Director Innovation (Deputy Chair)	
Donna Frater	Foreign, Commonwealth and Development Office (FCDO) & British Antarctic Survey	DiPSI Research Analyst	
Huw Griffiths	British Antarctic Survey	Representative of LGBTQ+ network	
Pilvi Muschitiello	British Antarctic Survey	Impact Facilitator	
Athena Dinar	British Antarctic Survey	Senior Science Communication Manager	
Geraldine Hough	British Antarctic Survey	Equality Diversity & Inclusion Officer	
Lara Lalemi	Bristol University	BAME in STEM Consultant	
Prem Gill	British Antarctic Survey	Minority in Polar research representative	
Sarah Tranter	Natural Environmental Research Council (NERC)	Corporate Social Responsibility Manager	
Chandrika Nath	Scientific Committee on Antarctic Research (SCAR)	Executive Director	
Renuka Badhe	European Polar Board (EPB)	Executive Secretary	
Simon McKeown	University of Teesside	Representative of UKRI EDI Advisory Board	
Cheryl Hewer	UK Research and Innovation (UKRI)	Senior Strategy Advisor – EDI	

Key external stakeholders were targeted in the initial months of the initiative to gather information, ask for input, context and any previous reports. Initially it was difficult to develop contacts with UKRI and NERC as the appropriate point of contact was not clear. The lack of clarity about who in UKRI might be interested led to multiple connections which were lost when relevant contacts moved roles. As the initiative gathered momentum, relevant stable contacts from both NERC and UKRI were identified and became standing members of the steering committee.

The value of the steering committee members was very clear right from the beginning of the programme with both individual and institutional insights about the UK polar community. The connections attempted with the Scott Polar Research Institute (SPRI) were initially less impactful due to the initiative being based at BAS. I had to search to find individuals who were supportive of the initiative. I believe it would be very beneficial for the DiPSI steering committee to engage with SPRI and have a representative on the committee moving forward. In addition, the SPRI individuals who engaged offered enormous impact to the tone and the maturity of the initiative with their innate sense

of justice and diversity that is perhaps related to their engagement with Arctic Indigenous peoples and the colonisation of science, exploration and research in that context.

British Antarctic Survey participants

The Diversity in Polar Science Initiative would not be as credible and effective as it has been without the contribution and guidance of BAS personnel, particularly Dr Huw Griffiths and Pilvi Muschitiello. The resourcing of the Research Analyst for the role instigated action and projects, but to deliver those from inside the institution also required collaboration with the Innovation team, HR teams, Communications team and individuals from the Operations and Science teams. The insistence for support and collaboration by the Director for Innovation, Dr Beatrix Schlarb-Ridley, allowed the initiative to attain the data required, develop the projects and then deliver on the outreach elements that have lifted the awareness and success for the project.

Wider UK Polar Community

As the level of activity increased, DiPSI reached out further into the UK polar community, not only locally into SPRI, but through the UK Arctic and Antarctic Partnership (UKAAP), the UK National Committee on Antarctic Research (UKNCAR) and the UK Polar Network (UKPN) into the wider University-based community. This led to highly active participation of community members from across the UK in the online Polar Horizons 2021 programme, as speakers and mentors. Links were also increased with the UK Antarctic Heritage Trust (UKAHT); a talk by the CEO of UKAHT to the Polar Horizons cohort marking the first Polar Pride Day on 18 November 2020 was very well received.

PROJECT OUTCOMES

The following is a list of project outcomes from September 2019 – March 2021 of the Diversity in UK Polar Science Initiative.

TIMELINE	OUTCOME	ADDITIONAL NOTES
SEPT 2019	Data analysis from BAS Head count	
SEPT 2019	Data research comparison to UK Higher Education	
	Science, Technology, Engineering and Mathematics (STEM) students and UK Society	
OCT 2019	Polar interest and inclusion calendar for engagement	See appendix A
DEC 2019	Citizen science project to target local BAME students –	Delivered in person at
	'Seals from Space'	BAS
DEC 2019	Development of EDI 101 values and language	
	presentation for BAS and polar community	
SPRING 2020	Underrepresented students' engagement programme -	Launch day delivered in
	Polar Horizons 2020: Launch & shadowing	person at BAS
SPRING 2020	Polar community contact list	<u>Available on DiPSI</u>
		<u>website</u>
SPRING 2020	Polar funding starting points document	
MARCH-DEC	Underrepresented students' engagement programme -	Online seminar
2020	Polar Horizons 2020	programme
MARCH-DEC	Engage with key role models and keynote speakers for	Recorded talks
2020	seminar series – Dr Karen Salt, Ben Merrick, Dr Ana	available on the DiPSI
		<u>website</u>

	Pereira-O'Callaghan, Dr Melissa Burt, Nicole Logan-	
	Park, Dr Stephen Roberts, Camilla Nichol	
CLINANAED		UK Polar Network
SUMMER	Supporting UK polar committees and groups with EDI	
2020	expertise	(UKPN), among others
ONWARDS		
MARCH 2020	Presentation to Arctic Science Summit Week (ASSW) conference—Iceland	DiPSI Research analyst invited as keynote
		speaker
AUG 2020	Presentation and chair of panel session at Scientific	Delivered online: DiPSI
	Committee on Antarctic Research (SCAR) conference—	Research analyst
	Hobart	invited as panel chair
2020	Diversity in UK Polar Science Initiative logo and the 'line	Visual assets created
	of diverse polar people' graphic	by BAS
		communications team
OCT-NOV	Support and engagement for inaugural Polar Pride Day	Polar Pride social event
2020	November 18 th	for polar community
OCT 2020-FEB	Race Impact survey and report October 2020 –	Full report available via
2021	February 2021	<u>DiPSI website</u>
MARCH 2021	Underrepresented students networking event - Polar	Delivered online
	Horizons March 2021	
MARCH-DEC	Underrepresented students connecting programme -	Delivered online
2021	Polar Horizons 2021	

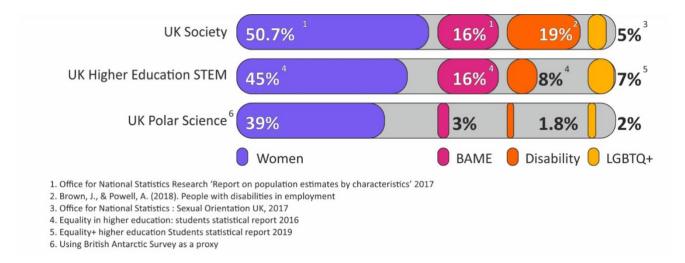
KEY OUTCOMES EVALUATION

Below, key outcomes are briefly analysed regarding, where applicable, contribution to project goals, source of idea, resources required, time required, timeline, key stakeholders, unexpected success and unexpected issues.

- o Data Analysis from BAS Head count and SPRI personnel roll Goal to produce a confident review of current head count demographics was accomplished. Informal techniques were required to assess ethnicity as >30% of staff had not filled in the data. The review took 10 work days as the search required direct verification from individuals or from online imagery sourced from academic websites or LinkedIn. It was a necessary project to complete and should be repeated to track and report change. The full cooperation of BAS HR staff was required to compile the confidential data. SPRI was not forthcoming with official data but helped through informal data capture. Raising the question of ethnicity to those with minority ethnic backgrounds was confronting and made some uncomfortable to be identified as an ethnic minority. From further meetings with the broader UK HEI polar community, the range of 2 3% of BAME students is also comparable across their communities.
- o Data research comparison to UK Higher Education Institutions (HEI) and UK Society across gender, BAME, LGBTQ+ and disability. This keystone piece of analysis has showcased disparities and, from its development in December 2019, has provided evidence underpinning the call for change. The graphic, developed by Dr H. Griffiths (BAS), was a powerful visual aid to explain the disparity in representation across the underrepresented groups and the relevant comparisons of UK society as a whole, compared to UK STEM participation in UK HEI and the percentage of identified staff and students in the UK polar community as reflected by BAS official headcount data and SPRI informal data. The process to find accurate and most recent

data in these populations took several weeks and was revised to comprise official data sources to make the data as robust and communicable as possible. The UK society data is the most out of date, with the 2011 census data being used to maintain credibility, although many academic papers since 2019 indicated a much larger percentage of population are from minority ethnic backgrounds than is reflected in the outdated census data.

The data and graphic should be updated to reflect the 2021 census when it is released.



- o Polar interest and Inclusion calendar for engagement as simple as it sounds this was a complicated collaborative outcome to ensure we had sourced as wide a spread as possible of Inclusive calendar days and that they had UK or Global significance, as the key customer for this was the BAS Communications team and the British Antarctic Territories department and their social media channels. (Appendix A)
- o Development of 'EDI 101' values and language presentation for BAS, UK polar community and now open access on the <u>DiPSI resource pages</u>. The slide deck with relevant contacts is available via this link.

This presentation largely constructed by Dr Huw Griffiths and Pilvi Muschitiello from BAS with support from colleagues and collaboration with BAS EDI Officer Geraldine Hough is one of the most effective culture change and advocacy tools of the project. It has been presented to in excess of 400 people and has been recorded and copied by external groups, including the International Thwaites Glacier Collaboration and SPRI.

concentre and had tours of BAS, talks by many BAS personnel about many elements of polar research and operations. The calibre of the students was very high and the project proved that students from underrepresented groups were not being attracted to BAS through established pathways but that they are available and present in the local academic community. The project took three weeks to prepare and plan for and utilised personal relationships of the students in

the community to reach the right audience, but did show that with extra effort, underrepresented communities can be successfully engaged. PhD BAS/Cambridge University student Prem Gill was instrumental in ensuring the success of the project by accessing local colleges and contacting local academics. He also scheduled the week with the tours and talks for the students and developed training modules and ensured IT support for the students.



1: British Antarctic Survey PhD student Premdeep Gill showing pieces from an ice core to the project volunteers

o *Underrepresented students' engagement programme - Polar Horizons 2020 launch* was held in person at BAS March 2020, welcoming 22 students from underrepresented groups to BAS for a week of work-shadowing and engagement. Unfortunately, due to the Covid-19 lockdown, this was cut short after only a day. Despite this, the feedback received was extremely positive. A full report is available on the DiPSI website.

The Polar Horizons project took months to coordinate and deliver. The initial work started on a 5-month timeline that was kicked off by setting the criteria for the approval process, creating an application form using Microsoft forms and, once received, assessing the applications. Additionally, it involved the skilled use of experienced BAS staff for the time-consuming process of matching students and researchers based on their studies and areas of interests. Further resource was required for booking tours of the building, catering, coordinating volunteers and scheduling VIPs and speakers for the launch day. Administrative support was required for the logistics of having the VIPs and the 22 students traveling to Cambridge, as well as organising accommodation for their stay. It took three people working over those 5 months to plan, coordinate and complete the project, and without their dedication and approval of their line managers it would not have been possible or as successful.



2: Doctor Liz Thomas talks to the students about her teams' research on ice core data.

Quote from a Polar Horizons 2020 Alumni:

"That day at BAS was a huge discovery, not only of the science and programmes, 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."

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 BAS working environment even for a day and indicated that the efforts to attract a wider range

of students offers rewards of diverse thinking and the possibilities of innovative science.

Improvement learnings include:

- a) The existing staff had difficulty in connecting with underrepresented groups at university levels across the UK. We had to individually and inefficiently target interest groups at universities that may have had STEM expertise and may welcome a polar area of research. Any assistance that can be given to UK wide university networks being created for BAME or LGBTQ+ or disability engagement will be valuable, and such networks should be supported by BAS and NERC.
- b) The impact of an informal WhatsApp group set up for Polar Horizons participants was unexpected and far outweighed email contact for awareness and impact. The take up by the students was 80% across the original cohort, with 11 of the 22 students maintaining regular contact throughout the year.

Key tasks and milestones of the project and a basic timeline have been sketched out below:

High-level project timeline as used by Polar Horizons 2021:

T-5 months	Confirm project dates and gain signoff	
T-4 months	Confirm programme structure and communications plan	
T-3 months	Launch application process for both students and hosts	
T-2 months	Follow up communications plan, target potential hosts	
T-7 weeks	Commence discussions with invited guests and speakers	

T-6 weeks	Close application process
T-5 weeks	Confirm applicant details and commence matching with hosts
T-4 weeks	Continue matching applicants and hosts
T-3 weeks	Seek additional hosts as required
T-2 weeks	Finalise and confirm all matches
T-1 week	Introduction emails between matched students and hosts
T-1 week	Finalise zoom sessions and invitations
T-1 day	Confirm speakers and schedule
Launch Day	

Key project tasks as used by Polar Horizons 2021:

1.	Select suitable dates for the programme - taking into account University holidays,
	exams and other significant meetings or deadlines
2.	Booking of any physical locations - if required
3.	Develop a communications plan - including social media, web pages and email
4.	Create online application forms for students and host researchers
5.	Get permission to use and store personal data from all involved - e.g. GDPR
	compliant
6.	Invite potential guests and speakers for the launch of the programme
7.	Schedule speakers around their availability
8.	Confirm schedule with speakers - including location or video conferencing links
9.	Invite local Polar community, STEM minority groups and networks to the launch day
10.	Filter applicants to ensure that they meet the required criteria - academic
	qualifications, minority group status etc in line with aims of the scheme
11.	Match applicants with hosts based upon areas of expertise or research interests
12.	Undertake targeted requests to teams or departments if lacking hosts for certain
	research disciplines
13.	Confirm matched pairings, confirm by email and request acknowledgment and
	understanding from both parties
14.	Establish regular Webinar and discussion sessions to continue the programme into
	the future
15.	Confirm project scope and expectations with matched pairings
16.	Establish website resources for students
17.	Communicate with unsuccessful applicants and invite to the talks and open sessions
18.	Communicate with all participants regarding schedule for the program, 'Launch Day
	and seminar days'
19.	Record launch day sessions and webinars for the resource web page

 Underrepresented students' engagement programme - Polar Horizons 2020 – online seminar programme The Polar Horizons programme was impacted by COVID-19 in that the 4 day in-person programme was truncated and the students lost the unique opportunity to be able to spend time with a polar researcher in their workplace. But the efforts of the project team over the next 9 months to stay connected with the students delivered a supportive and impactful programme with much wider reach and influence. To compensate for the loss of face-to-face time the ongoing series of talks and seminars was much increased and major keynote speakers have left a legacy of outstanding role model presentations and positive influence for the students and allies who attended the zoom talks, or watched the archived recordings which are available via this link.

An example presentation by Dr Sophie Fielding: 'A seagoing woman in Marine Science', a fantastic talk about her journey in research and the parallel journey of gender equality and some sharing of role models and her career, <u>can be accessed via this link</u>.

Quote from Polar Horizons Alumni in October 2020

- "... thank you and the rest of the team that made the Polar Horizons programme possible. I've never felt such a warm welcome and never felt more included than I have during this project, both at BAS and during Zoom meetings. I've gained so much insight into what it means to be a polar scientist, and what it's like to be from an underrepresented in STEM. I know the challenges that I may face in the future as I (hopefully) start a career in STEM, but this experience has prepared me for that and gave me a support system of likeminded people I can talk to when those challenges may arise."
- o Engage with key role models and keynote speakers for seminar series. With the evolution of the Polar Horizons outreach programme to compensate for the loss of learning seminars while face to face, we started a seminar series open to BAS, allies and the Polar Horizons participants, hosts and students. We cold-called people, followed up leads and asked other collaborators if they would speak to the students. Speakers who resonated particularly strongly with the student cohort because of their own lived experience as members of underrepresented groups included Dr Karen Salt (UKRI), Ben Merrick (FCDO), Dr Ana Pereira-O'Callaghan (BAS), Camilla Nichol (UKAHT), Dr Stephen Roberts (BAS), Nicole Logan-Park (BAS), and Dr Melissa Burt (USA); they were brilliantly complemented by ally speakers from BAS, SPRI, and the wider polar community. This outreach element of the project has left the programme with a fantastic legacy of recorded talks and images of role models from underrepresented groups and allies with their stories of their journey into polar communities and their resilience. You can access the 'Journeys in Polar Science' talk series via this link.
- O Supporting UK polar committees and groups with EDI expertise: the UKPN is a great example of where the DiPSI activities have supported existing Polar Communities. The project research analyst has worked closely with UKPN colleagues providing with information and lessons learn from our projects. A 2020 Polar Horizons alumni now serves as EDI officer on the UKPN committee. For more information please visit the UKPN website.
- o Presentation to Arctic Science Summit Week (ASSW) conference—Iceland: DiPSI Research analyst was invited to give a talk at the Arctic Science Summit Week (ASSW) 2020. The IASC & IASSA online workshop was titled: Gender in Polar Research—Gendered field work conditions, epistemologies and legacies. Donna Frater's talk was titled "Polar Science, are we all included?" Full workshop information and abstracts can be found via this link.

Presentation and co-chair of workshop at the Scientific Committee on Antarctic Research (SCAR)
 2020 conference:

"Inclusive collaborations in Antarctic research"

Schedule

15:00-15:05 - Introduction

15:05-15:30 - Oral and poster presentations

15:30-16:00 - 'Inclusion in Antarctic Research' Panel discussion

16:00-16:10 - Comfort Break

16:10-16:40 - Breakout Discussion 1 - Embracing Diversity and the Importance of Interdisciplinary Collaborations

16:40-17:10 - Breakout Discussion 2 - Diversity and Inclusion in the Field and at Professional Events

17:10-17:20 - Comfort Break

17:20-17:50 - 'Antarctic Leaders' Panel Discussion

17:50-18:00 - Closing Remarks

<u>A recording of the session can be found via this link.</u> For further information about the workshop, please navigate to the SCAR 2020 conference page.

 Diversity in UK Polar Science Initiative logo and the 'line of diverse polar people' graphics, created by BAS communications team





- o Support and engagement for Inaugural Polar Pride Day 18th November 2020
 - The Foreign, Commonwealth and Development Office (FCDO) utilised their diplomatic influence and coordinated the naming of 18th November 2020 as the first Polar Pride Day. The British Antarctic Territory and South Georgia & the South Sandwich Islands (SGSSI) officially declared the first Polar Pride Day and supported it as a celebration of the contribution of LGBTQ+ people in the overseas territories. The DiPSI steering committee was fully committed to supporting and communicating the day, using the available communications channels and social media. Additional projects to support the Pride day were initiated, such as:
 - Creating a photo montage of a BAS people Pride flag (see image in Polar Pride report slide below).
 - Sending new Progressive Pride Flags to ships and stations and flying one at BAS headquarters (see image at centre of collage below); creating electronic Progressive Pride Flags composed of polar images (top right of collage below).
 - Asking station and ship crews to support the initiative; they did and sent great photos beforehand that could be used on the day.
 - Supporting the event across all social media platforms particularly on Twitter.

• Holding a Pride Day morning tea and generated media items to be shared internally and externally from BAS.



o Race Impact survey and report

A major task of the initiative was to gather evidence regarding the lack of diversity and inclusion and to provide tangible and quotable evidence that could assist in changing the conversation and the culture. The steering group looked at options to gather direct feedback regarding the experience of individuals. Originally, it was suggested to run focus groups to bring members of the polar community together and discuss current barriers and issues regarding racism and inclusion

for those working in the UK polar community. It was concluded however, due to the personal nature of the subject and the relatively few people from BAME minorities working in polar research, ensuring that we had adequate participation would be difficult. The suggestion was made to instead conduct a public survey and have it shared as widely as possible with the UK polar community and to gather current and past workers' views and opinions on racism in the sector. It took 3 months to design the survey questions, obtain ethical approval, send the survey out to the community and to receive responses. The analysis of the responses took 2 months. Drafting of the report and iterations incorporating key stakeholder input took a further 2-3 months before release. The entire process took from August 2020 until launch in March 2021, a period of just over 7 months.

The survey was designed from discussion with key members of the steering committee and past survey design examples. An ethics review was completed; this called on experience from researchers across NERC and SPRI. Distribution via social media and UKAAP, UKNCAR, UKPN and BAS email lists were utilised to get the survey notice out to the polar community. We received 174 responses which was deemed substantial and a good representative response from the community. The response was generally well spread across demographics with good age and representative gender spread, 90% (154/174) of respondents self-identifying as white.

You can <u>read the full race impact survey report on the DiPSI website via this link</u> and the one-page summary is attached as APPENDIX B.

Key survey findings at a glance:

- 1. 32% of respondents (55/174) have witnessed discrimination based on race or microaggressive¹ behaviour towards individuals of a minority background while working within the UK polar research community.
- 2. 57% of BAME respondents (4/7) had experienced racism in their workplace in polar research.
- 3. 67% of respondents (37/55) who witnessed incidents that involved racism, did NOT report it.
- 4. 78% of respondents (136/174) are aware of issues regarding racism and exclusion of Black, Asian and Minority Ethnic (BAME) staff or students inside the workforce culture of the UK polar research community.
- 5. A lack of reporting of racist behaviours adds to the lack of recognition of these

These findings were identified as being stark statistics but also points leading to conversation amongst current community members.

"Survey results confirm a problem for people from minority backgrounds in entering polar research through recruitment and academic career development pipelines and the need and requirement to develop more inclusive policies in current polar institutions to support minorities. While the experiences of people from minority backgrounds are not specific to polar research, efforts are needed from within the polar community to address current underrepresentation and change the traditions that prevent ethnic minorities from fully contributing their talent to the UK polar research community."

"We asked participants in the UK polar research and operations community, to complete a survey about their experience of equality in the workplace, particularly regarding race. This survey, devised by the DiPSI committee, with input from European Polar Board (EPB), SPRI and BAS staff, generated 174 responses with over 1000 free text comments. The data and

respondents' comments have informed recommendations from the initiative regarding guidance for UK polar research personnel to acknowledge systemic racism and to put in place changes to improve diversity and inclusion in polar research and operations."

"This survey was voluntary and may only represent 20% of those involved in polar research across the UK's Higher Education Institutions. As a result, our understanding of systemic bias against minority ethnicities is only partial. Further investigations are required to understand the determinants of systemic and individual bias regarding race, diversity, and inclusion."

The report concluded:

"The UK polar research community produces scientific research of global importance. Imagine the potential for this body of researchers if the culture, values, and traditions were to change to become a fully inclusive, safe, inviting place for everyone to work. If behaviours that enable bullying and harassment are removed, if traditions and policies that benefit the White majority are unpicked and recruitment and research is allowed to proceed without bias, unhelpful culture will be replaced with innovation and inclusion."

The UK polar community and its leaders are encouraged to develop the skills and confidence to identify cultural issues and traditions that are not inclusive and instil new policies and traditions, to ensure that the workplace meets the needs and standards required to be fully inclusive. They should also have new policies supporting them through a transition phase of integration. They can begin this by understanding the issues that people from minority backgrounds encounter and put in place actions that develop and motivate the polar workforce through inclusive practice. There is a message from this survey that the leadership need to fully understand the Equality Act and their obligations as an employer. Key to this is becoming more effective in accessing a pool of diverse, talented people, and avoiding unconscious bias in recruitment and consideration and reward of non-Oxbridge degrees in the Doctoral Training Partnership (DTPs) and Centres for Doctoral Training (CDTs).

The Diversity in UK Polar Science Initiative (DiPSI) has been acting on internal community suggestions to address immediate issues such as application bias, lack of networking and like-employing-like recruiting. The projects that have been completed have created resources and projects that have aligned with many of the improvement suggestions from this survey. A table highlighting the activities and aligning them with suggestions is listed in Appendix A.

We do have a body of evidence now of testimonials by people who have experienced and witnessed discrimination, based on race, inside the UK polar research community. The evidence is clear: those who have not had personal experience can rely on the data gathered as evidence that discrimination does and is still happening.

The following recommendations, derived from the survey, could assist in the change required to address the significant issue of lack of diversity and evidence of racist systems and behaviours:

- 1. Ring fenced employment programmes for both science and non-science roles at all levels (including senior researchers and management).
- 2. A full review of bias within the UK postgraduate application process (including UKRI Doctoral Training Partnerships) e.g., exclusionary university rankings, rewards for volunteering and other systemic racial barriers.
- 3. A fully resourced and strategic polar focused outreach programme to target BAME students across the UK STEM Higher Education system to elevate awareness of the polar research community and show an EDI-aware workforce that would counteract historic views.
- 4. Targeted Masters training Masters level interactions with established scientists for BAME students would improve networking and credibility of Master's projects and increase the success rate for DTP/CDT applications.
- 5. Recruitment reporting on diversity applicant pool and successful appointments would highlight the behaviours that are preventing recruitment and retention.
- 6. Continuation of cohort programmes, such as Polar Horizons, would develop a pool of diverse talent that could flow into the polar research and operations community.
- 7. Yearly diversity reporting would keep the issue in focus and drive improvement.
- 8. Visible statements and support by the highest levels of leadership across the polar research community, with published diversity goals would contribute enormously to culture change.
- 9. Advanced Equality, Diversity and Inclusion training and some form of unconscious bias training are a necessary base level of education to change culture and continue improvement in diversity and inclusion understanding.

The report has been discussed by the BAS Executive Team in April 2021 and will be discussed by <u>UKAAP</u> and <u>UKNCAR</u> at their upcoming meetings. An action grid is currently being drawn up by BAS and will be shared with NERC and UKRI to take forward the recommendations given in the report. To increase the impact and legacy of this survey and DiPSI further, plans are also under way to write an academic publication based on the survey results, together with social science researchers from SPRI.

Underrepresented students' engagement programme - Polar Horizons 2021 - online

Due to ongoing COVID-19 restrictions the second Polar Horizons programme was planned as an entirely virtual and online programme.



3: Twitter card created for advertising the 2021 Polar Horizons programme.

The programme entailed three days of welcome, presentations and discussion, with a fourth day to be dedicated to focus groups asking for feedback about Inclusive spaces and mental wellbeing. Although only recently completed, the feedback was very positive for both the process as an advocacy and positive action outreach tool and with the results and engagement with students and hosts. A major change for the second programme was the invitation to polar researchers across STEM fields from across the UK Higher Education Institutions.

We had nearly 130 students apply for the programme. 18 students were not considered for matching as they did not self-identify in any of the minority representations. With great effort Dr

	POLAR	HORIZONS PROGRAI	M 2021	
MONDAY 1st March	TUESDAY 2nd MARCH	WEDNESDAY 3rd MARCH	THURSDAY 4th MARCH	FRIDAY 5th MARCH
	SESSION 1	SESSION 4	SESSION 7	
EACH SESSION NUMBER LINKS TO ZOOM. SIMPLY CLICK ON THE SESSION YOU WANT TO JOIN AND ZOOM SHOULD	09:00-10:40 LAUNCH MORNING Welcome by polar research institutions and universities	09:00-10:30 Arctic highlights	09:00-10:30 Environment, logistics & committees in polar operations	CREATIVE TUITION: Community focus groups (each student/ECR will onl participate in one slot)
LAUNCH IN YOUR	10.40 - 11.00 BREAK	10:30 - 11:00 BREAK	10:30 - 11:00 BREAK	
BROWSER.	SESSION 2	SESSION 5	SESSION 8	Register for one focus
	11:00-12:00 Introductions	11:00-11:30 Artificial Intelligence and polar research	UK Polar Horizons 2020 alumni & science highlight	group via this link. Eventbrite password: Polar Horizons2021
	12:00-13:00 Potential host and student	11:30-12:30 Potential host and student	11:30 - 12:30 Potential host and student	09:00-10:30
	1:1	1:1	1:1	10:45-12:15
	13:00 - 13:45 BREAK	13:10 - 13:45 BREAK	12:45 - 13:30 BREAK	DESCRIPTION OF THE PERSON NAMED IN
18:00-20:00	SESSION 3	SESSION 6	SESSION 9	12:30 - 14:00
VOLUNTARY Icebreaker meeting on	13:45 - 15:30 Antarctic highlights	13:45 - 15:30 Funding and Polar	13:30-15:30 Feedback closing the	14:15 - 15:45

4: Polar Horizons 2021 launch week programme for matched students & Early Career Researchers (ECRs)

Huw Griffiths was able to match 62 students with host researchers; this constituted a 300% increase compared to last year's cohort. We had hosts from the NERC Arctic Office and 9 UK research institutions including BAS, Durham University, Leeds University, Oxford University, Imperial College, Cardiff University, Southampton University, Bristol University & Cambridge University.

Feedback from participants and mentors has been highly positive; a few examples of student feedback are given below:

"A fantastic and informative experience where I felt welcomed and positive about being disabled"

"I now realise that I am able to make a difference and my sexual identity and disabilities are a positive tool to do so. It's refreshing to be part of a scheme that aims to destigmatise polar research and input diversity and inclusivity."

"Hearing from polar scientists and professionals who've come from such diverse and indirect backgrounds has really helped me to see a future for myself in polar science. As a member of the LGBTQ+ community, Polar Horizons has also helped me to realise that I'm not alone in my endeavours."

A full report of the Polar Horizons 2021 programme is available via this link.

Following the positive feedback and successful delivery of Polar Horizons, it was realised that the programme can provide a template not only for similar programmes in polar contexts, but also for other subject areas. To increase the usefulness and legacy of Polar Horizons and DiPSI further, a transferrable 'how-to-guide' for organising cohort programmes based on Polar Horizons has been compiled and is published under the resource site of the DiPSI webpages. The BAS Director has raised awareness of this resource at SCAR, NERC and UKRI, where Polar Horizons has attracted considerable interest. In addition to disseminating the existing guide nationally and internationally, plans are under way to write an academic publication on cohort-based engagement programmes, based on Polar Horizons. This way we aim to strengthen the legacy of DiPSI funding further and to make audiences aware of our experiences and the existing resources who we would not reach through our established communication channels.

PROGRESS OF THE INITIATIVE – ENGAGEMENT, AWARENESS AND IMPACT

Engagement with key stakeholder groups and organisations

The engagement with UKRI was limited by a lack of understanding of where and how to join up. Initial connections were then lost when UKRI teams were restructured and experienced staff turnover. Since summer 2020, we had a stable contact who was invited to all steering group meetings, was able to attend several, and has indicated commitment to be a standing member of the steering group going forward.

The engagement with NERC was more substantial due to NERC looking to build their Diversity Strategy with Institution input and the existing connection with the BAS EDI officer and NERC. Instability in the Diversity roles will impact continuity here as well and we are in the process of building more senior connections to maintain useful contact and ability to influence up into UKRI.

The engagement with the polar community/committees was rewarding in both directions. Once some credibility was built from Polar Horizons 2020, the engagement of a 'diversity professional' to discuss Black Lives Matter statements, EDI values and statements, diversity surveys and creation of EDI roles on committees was a very effective means of outreach.

The engagement with SCAR was important and very impactful. The engagement through speaking commitments both ways helped build credibility and connection. The engagement around the SCAR medal for Education and Communication 2020 awarded to DiPSI Steering Group member Huw Griffiths was also very positive. Their support through a steering committee member was always valuable and the personal reflections of the SCAR Executive Director on the community helped set the goals for the programme.

The UK Polar Network is the UK branch of the Association of Early Career Scientists (APECS) and currently has over 400 members. DiPSI has had positive influence with this ECR group through direct interaction and advice from the Project Coordinator and also through the engagement of one of the Polar Horizons alumni as a new EDI executive. They completed their first diversity survey to understand their demographics better and are developing organisational EDI values and strategy to be more inclusive and welcoming. The addition of a UKPN representative into the steering committee will inject ECR perspectives into the actions going forward.

Awareness

The question has been asked as to the initiative's delivery on awareness and impact regarding Diversity and Inclusion. There have been tangible successes with raising awareness on specific issues, including conference presentations, the Race Impact survey results and reports, Polar Pride Day awareness and delivering on creating more inclusive role model examples and imagery.

The Black Lives Matter movement started less than a year after DiPSI was founded. The global activism regarding racism was reflected in a raised awareness of systemic bias, gaslighting and microaggressions against minority groups both here in the UK and abroad. It replaced the need to prove that there was a problem with a growing recognition that its existence was systemic. Despite this, some comments submitted in the Race Impact survey sadly indicated that there is not yet universal acceptance of the value of diversifying the polar community or of any need for change. There is hence continued need for further education, training and awareness raising to achieve culture change and any internal efforts by UKRI and NERC should be eagerly adapted by BAS to telegraph their commitment to review and change.

Awareness raised through communication channels: The infographic below shows the analysis of the BAS Communications team regarding the social media influence generated by the project so far. There were over 1000 views of the 13 different YouTube videos generated by DiPSI guest speakers. There were over 3300 website and resource page views of the DiPSI pages hosted on the BAS website. There were 9.3 million campaign hashtag social media impressions on #DiveristyinPolarScience and #UKPolarHorizons.



Impact on polar institutions

The question regarding impact is harder to prove in this short time frame. The strategy to engage with BAS leadership and the Executive was very light touch throughout the pandemic with a range of high priority safety and operational issues taking the focus of their time. I believe that in a normal operational year at the BAS offices, facilitated by personal interaction and engagement during meetings, opportunities for change and conversation would have been greater. There has been strategic internal engagement with the BAS Executive Team meeting (BET) by Jane Rumble and Dr Beatrix Schlarb-Ridley. They gave progress report and updates in April 2020, where the following minutes were taken:

"The BET agreed that this was an important scheme and were keen that BAS should champion diversity in polar science. It was actioned that JEF should discuss the scheme with Duncan in order to keep momentum going. LMC is due to meet with Donna Frater and MG to discuss how to involve the scheme at a UKRI level. SM noted that there was evidence to prove that a more diverse organisation is more resilient. JEF is to look into some of the information provided by the 30% Club, which is an organisation which runs initiatives to encourage gender balance. The potential for joint funding with other organisations would also be explored in order to keep the initiative in place after the initial phase. It was felt by the group that it was more difficult to promote non-visible diversity and also that there may be more diversity in the workplace than realised, due to hidden aspects. For this reason, it is important to be accepting and keep talking about all types of diversity. It is also essential to stress that BAS encourages opportunities for all, in all areas, not just science. "

There has been one policy change instigated at BAS resulting in upgrades to a risk assessment regarding LGBTQ+ travel, and an action grid being devised regarding implementation of the recommendations raised in the Race Impact Survey at BAS. It is hard to ascertain impact across the wider UK polar community but the enthusiastic support received for the Polar Horizons project would indicate widespread support and further engagement could garner further actions.

Impact on students from underrepresented backgrounds

Three different student cohorts have benefited from DiPSI programmes:

- Seals from Space (2019): This included 8 students from BAME backgrounds. It has led to a
 PhD project proposal for one participant, a supervised Masters project between a participants and polar
 scientists, and a collaborative AI project between a professor at Cambridge University's Department of
 Applied Mathematics and Theoretical Physics, four participants and the organiser of the Seals from
 Space project making valuable contributions both to CVs and research experience with likely future
 benefits for career development.
- Polar Horizons 2020 & 2021: This included 22 & 62 students, respectively from underrepresented groups (LGBTQ+, disabled and BAME) matched with host scientists and over 110 students invited to the Polar Horizons events. So far one student from the 2020 cohort has secured a PhD position. Participants have expressed the general benefit of the programme for their career planning in their feedback; some examples are given below:

"I've found the Polar Horizons project amazing so far. I applied because my PhD has a glaciation/polar link, but I'd never considered a job in the polar regions before. It's really opened my eyes to the opportunities out there. Additionally, I've found starting a PhD in a pandemic quite lonely so this project came at just the right time and gave me a big much needed boost!"

"I have learnt so much about the diversity of polar research this week. I am now coming away with a clear picture of how to start a career in polar research and some great contacts to do this!"

"I've really enjoyed the programme this year - as a 1st year undergrad, the whole experience has been really inspiring, and has made me feel that I have a space in polar science as a queer woman. Meeting with my host and hearing the experiences of all of the speakers this week have shown me how varied the routes into polar science are, and have proved that unconventional routes can even be beneficial in terms of the experience you gain!"

"Polar Horizons 2021 has been so inspiring and informative, but also very comforting to me as a disabled queer person to have our difficulties acknowledged and discussed as part of the community. Feel much more confident in what I have to bring to the scientific community on the whole, as well as more confident in there being a support network out there of people in similar positions, but also genuine allies putting the work in."

CONCLUSION

DiPSI has been a tremendously important and timely initiative so far already — it has started to raise awareness across the polar community and its funders of existing inequities, and has developed a number of resources available to the community to help address some of the issues identified. The extent of underrepresentation of STEM talent with ethnic minority, LGBTQ+ and disability backgrounds in the UK Polar Community compared to the UK STEM Higher Education sector and to UK society has been identified. Furthermore, quantitative as well as qualitative evidence of racial discrimination in the UK Polar Community has been collated through the Race Impact Survey. Recommendations have been provided in the Race Impact Survey Report on how to address issues, and a range of resources have been developed and made freely available on the DiPSI webpage. These include recorded talks

by role models from underrepresented groups, an EDI 101 training slide deck, summaries of funding opportunities, a report on an inclusive ECR citizen science project and reports of the two Polar Horizon cohort programmes. A 'how-to-guide' for inclusive cohort engagement takes the learning from inperson and virtual delivery of the Polar Horizons programme and makes it applicable not only for the international polar community, but also for other subject areas that suffer from underrepresentation of diverse talent.

Going forward, DiPSI aims to build on what has been achieved so far, intensifying the collaboration across the organisations that make up the UK polar community, and with funding bodies, to build an inclusive culture and a diverse talent pipeline. We aim to tackle issues that have already been identified, and listen actively to understand and address current and emerging concerns. We thank the Foreign, Commonwealth and Development Office for the foresight and leadership in conceiving, birthing and maturing this valuable initiative.

RESOURCES

Appendix A—Inclusion Calendar

Appendix B—One-page Race Impact survey report document

Appendix C—Polar community contact list – email

Appendix D—Table of completed project actions

Appendix E—Communication document for Polar Horizons 2021

Appendix F—Example Polar Horizons 2020 Certificate of Completion

APPENDIX A

The calendar for inclusion and polar days of interest is available on the DiPSI resource page.

Calendar with Inclusion and polar days of interest:

Jan - April are 2021 dates May - Dec 2020 dates

TIMING	OCCASION	NOTES
<u>JANUARY</u>		
4 January	World Braille Day	
20 January	Penguin Awareness Day	
24 January	International Day of Education	
<u>FEBRUARY</u>		
	Whole month: LGBT History month	
6 February	Time to talk Day	
11 February	International Day of Women and Girls in Science	
13 February	World Radio Day - UN	
20 February	World Day of Social Justice - UN	
27 February	International Polar Bear Awareness Day	
<u>MARCH</u>		
	Whole month: Women's History month	
1 March	Zero Discrimination Day - UN	
1 March	Inclusive Networks Awards	
03 March	03 March World Wildlife Day (WWD)	
03 March	World Hearing Day	
07 March	World Maths Day	







Diversity in Polar Science Initiative

RACE IMPACT SURVEY REPORT SUMMARY

This report outlines the key findings and data summary from the first Race Impact survey undertaken by the Diversity in UK Polar Science Initiative (DIPSI) in October 2020, with the guidance and support of the Foreign, Commonwealth and Development Office (FCDO) and British Antarctic Survey (BAS). The survey was open for 2.5 weeks and was completed by 174 polar researchers.

Survey results identify barriers for people from minority backgrounds in entering polar research through recruitment and academic career development pipelines, and the need and requirement to develop more inclusive policies in current polar institutions to support minorities. While the experiences of people from minority backgrounds is not specific to polar research, efforts are needed from within the polar community to address current underrepresentation and change traditions that prevent ethnic minorities from fully contributing their talent to the UK Polar research community.

Key survey findings at a glance:

- 1. 32% of respondents (55/174) have witnessed discrimination based on race or micro-aggressive¹ behaviour towards individuals of a minority background while working within the UK Polar research community.
- 2. 57% of BAME respondents (4/7) have experienced racism in their workplace in polar research.
- 3. 67% of respondents (37/55) who witnessed an incident that involved racism did not report it.
- 4. 78% of respondents (136/174) are aware of issues regarding racism and exclusion of Black, Asian and Minority Ethnic (BAME) staff or students inside the workforce culture of UK polar research community.
- 5. A lack of reporting of racist behaviours adds to the lack of recognition and response to these behaviours.

The following actions could assist in the change required to address the significant issue of lack of diversity and evidence of racist systems and behaviours:

- 1. Ring fenced employment programmes for both science and non-science roles at all levels (including senior researchers and management).
- A full review of bias within the UK postgraduate application process (including UKRI Doctoral Training Partnerships) e.g., exclusionary university rankings, rewards for volunteering and other systemic racial barriers.
- 3. A fully resourced and strategic polar focused outreach programme to target BAME students across the UK STEM Higher Education system to elevate awareness of the polar research community and show an EDI-aware workforce that would counteract historic views.

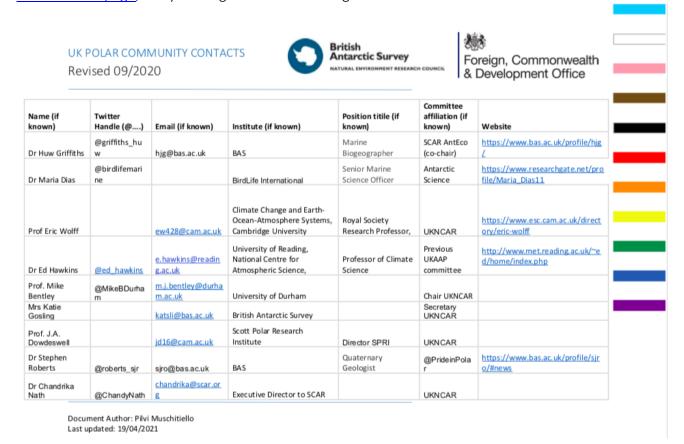
Conclusions

The survey provides both a body of evidence of testimonials of race-based discrimination, both experienced and witnessed, inside the UK polar research community, and a range of suggestions of how the community could begin to address these issues. The responses strongly encourage the UK polar community and its leaders to identify and deal with negative cultural practices and traditions, to ensure that the workplace meets the needs and standards required to be fully inclusive. The survey suggests that becoming more effective in accessing a pool of diverse, talented people and avoiding unconscious and systemic bias in recruitment would achieve a higher level BAME representation within UK polar research. The results of the survey are clear: those who have not had personal experience of racial discrimination within the UK polar research community can rely on these findings as evidence that a problem exists and requires addressing. The 10 action recommendations derived from the survey to combat current issues are detailed in the <u>full report found here</u> and the <u>actions and outcomes undertaken by the Diversity in Polar Science Initiative addressing these issues can be found in *Appendix 1* of the report.</u>

Document author: Donna Frater Last updated: 21/04/21

APPENDIX C

The full community contact list can be found via this link on the Diversity in UK Polar Science resource webpage, or by clicking on the below image.



APPFNDIX D

The table of completed project actions can be found on the <u>DiPSI delivery plan webpage</u>. All actions are divided into the following categories:

- Awareness
- Best practice / systemic
- DiPSI legacy products
- International engagement
- Role models
- Tools
- UK Capacity building
- Website

APPENDIX E

POLAR HORIZONS 2021 HOSTING SCHEME - UK POLAR SCIENCE

#UKPOLARHORIZONS

Improving the Diversity of UK Polar Science

The Polar Horizons initiative, funded by the UK Foreign, Commonwealth, and Development Office, builds new connections and collaborations between the UK Polar Science community and those from currently underrepresented groups, particularly BAME, LGBTQ+ and Disabled.

What does the programme look like?

The 2020 programme was disrupted by Covid immediately after its launch day but what were best laid plans were able to be maximised using online outreach and connection between the students and the host scientists online. We will replicate the success of the programme by <u>running the 2021 programme completely online</u>. It will launch with 4 days of intensive networking and exploring Polar research opportunities from the $2^{nd} - 5^{th}$ March 2021.

We aim to give early career STEM practitioners and students, an opportunity to experience research science in a polar context with the added benefit of matching your science with a host scientist active in polar research. During the first 3 days we will introduce you to BAS & SPRI through virtual medium and have UK Polar researchers talk to you and demonstrate their research to help to show what it's like to work in Polar Science and come away with a better understanding of how you can get involved in UK Polar Science as a career.

We will have people talk about many aspects of Polar science from animals to atmosphere and also the key areas of operations, logistics and sustainability. You will have a virtual tour of some of the BAS facilities, take part in workshops, hear from invited speakers and spend two and a half days learning of the worlds of polar scientists or polar engineers. You will network with the new cohort of Polar Horizons students as well as meeting come of the Polar Horizons alumni who are continuing their studies in polar interests.

Beyond March:

After the first week of intense engagement, the 2020 Polar Horizons Programme continued with a regular programme of talks, presentations and discussions aimed at building upon the initial week. We plan to continue activities through to December 2021. This will be an interactive process designed around the 2021 cohort.

Who are we looking for to be involved in the programme?

We are looking for BAME, LGBTQ+ and Disabled students, currently enrolled in UK Higher Education in Science, Technology, Engineering and Maths subjects and STEM related fields, who want to find out about Polar Science and its broader implications for the planet today.

What will we provide?

A detailed schedule of talks and education opportunities about UK Polar Sciences and current research. An opportunity to speak to scientists and engineers working on cutting edge science and technology projects in the Polar Regions today. A great programme completion certificate for your CV and new connections into a vital and exciting area of Global Science.

Applying for this programme – STEM undergrads, Masters and PhD candidates

APPLY HERE VIA OUR APPLICATION FORM

Applications close on the 25th of January 2021.

APPENDIX F – Example Polar Horizons 2020 Certificate of Completion







CERTIFICATE OF COMPLETION

This is to certify that

was selected, and successfully took part in, the POLAR HORIZONS project of the Diversity in UK Polar Science Initiative, run in partnership with BRITISH ANTARCTIC SURVEY from March — December 2020. The Foreign, Commonwealth & Development Office funded project introduced participants to UK Polar Science and celebrated Diversity and Inclusion in STEM.

Prof. Dr Dame Jane Francis Director British Antarctic Survey Dr Jane Rumble Head of Polar Regions Foreign, Commonwealth & Development Office



15th December 2020

