

SOUTH GEORGIA ASSOCIATION Marine Biodiversity Meeting Cambridge $4^{th} - 5^{th}$ July 2025



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PROGRAMME

Friday 4th July 2025

THE BRITISH ANTARCTIC SURVEY AT SOUTH GEORGIA **BAS AURORA COLLABORATION SPACE**

13:30 Registration with Tea & Coffee

14:00 Advances in mapping the island of South Georgia

14:45 Overview of BAS Archives

- 15:15 South Georgia Association Annual General Meeting
- 16:15 Morag Husband Campbell Medal Presentation

SOUTH GEORGIA 250th ANNIVERSARY DINNER THE ATRIUM, GONVILLE HOTEL

19:00 Drinks Reception 19:30 Dinner 23:00 Carriages

Saturday 5th July 2025

THE MARINE BIODIVERSITY OF SOUTH GEORGIA: PAST, PRESENT AND FUTURE

BAS AURORA COLLABORATION SPACE

Past Exploitation

09:30	Seals and Sealing	Connor Bamford (BAS)		
10:10	Whales: past, present and future	Jen Jackson (BAS)		
10:50	Coffee			
11:20	New Predator Science	Ashley Bennison (BAS)		
Current Manage	ement			
12:00	Ocean Ecosystem Science: new insights from an unusual ye	ar Sally Thorpe (BAS)		
12:40	Lunch			
13:40	Marine Management and Protection	Martin Collins (BAS)		
14:20	New Threats including Climate Change F	Ryan Reisinger (Southampton)		
New Directions and Future Perspectives				
15:00	Where next for the SGA?	Philippa Foster Back (SGA)		
16:00	Coffee, chatter and dispersal			

ACRONYMS

BAS	British Antarctic Survey
BASC	British Antarctic Survey Club
CCAMLR	Convention for the Conservation of Antarctic Marine Living Resources
FCDO	Foreign, Commonwealth and Development Office
GSGSSI	Government of South Georgia and the South Sandwich Islands
HPAI	Highly pathogenic avian influenza
SGHT	South Georgia Heritage Trust
SGSSI	South Georgia and the South Sandwich Islands

Adrian Fox (SGA) & Bob Headland (SGA) leuan Hopkins (BAS) Philippa Foster Back (SGA) Philippa Foster Back (SGA)



ADVANCES IN MAPPING THE ISLAND OF SOUTH GEORGIA Robert Headland (SGA) and Adrian Fox (SGA)

In 1775, Captain James Cook charted the northern coast of South Georgia. This was complemented by Fabien Bellingshausen's survey of the southern coast in 1819. During the 1800s, sealers, and an expedition of the first International Polar Year improved marine and terrestrial maps, and their history is shown in much of the toponomy. Vast changes occurred in the 1900s, when South Georgia became the focus of Antarctic whaling when navigational charts were produced, and many island expeditions (which included surveys of specific regions) were active. In 1951, Duncan Carse led a series of comprehensive expeditions over four



summers. This culminated in the publication of DOS 610 in 1958, the first comprehensive map of the entire island which remained the reference map for management, travel and scientific activity until the major revision in 2005 by BAS, on behalf of the GSGSSI. This was based on satellite imagery and highlighted the dramatic changes in ice cover and glacier fronts in the second half of the 20th century and underpinned the South Georgia Geographic Information System. Improvements in mapping techniques and availability of sub-metre resolution satellite imagery since 2000 has enabled the first rigorous mapping at detailed scales in key areas. Robert Headland will describe the advances in mapping until the publication of DOS 610, and Adrian Fox will report progress from then to date.

AN INTRODUCTION TO THE BAS ARCHIVES leuan Hopkins (BAS)

leuan is the Archives, Records and Information Compliance Manager at BAS, where he's been working since 2013. He will provide an overview of the range of the material held in the BAS archives, with a focus on that relating to South Georgia, and will explain how they are currently used to support the work of BAS.



ANNUAL GENERAL MEETING

Philippa Foster Back CBE

Philippa Foster Back CBE

Philippa Foster Back CBE

within event leaflet

David Rootes

- 1 Welcome
- 2 Minutes of the 22nd Annual General Meeting (2024)
- 3 Chairman's Report (including Committee Officer's reports)
- 4 Treasurer's Report
- 5 Reports from partner organisations FCDO, GSGSSI & SGHT
- 6 Election of Committee

Election of Committee				
Present Committee				
President	David Tatham			
Chairman	Philippa Foster Back CBE			
Secretary	Fran Prince (retiring 2025) Post Vacant			
Treasurer	David Rootes (acting) Post Vacant			
Newsletter Editor	Adrian Fox			
Membership Secretary	John Stafford Mills			
Communications	Sarah Greenwood			
Events	Paul Rodhouse			
Initiative Funding	Sarah Lurcock			
Website Manager Pat Lurcock				
Members	Martin Collins			
	Dave Fletcher			
	Bob Headland			
	Bruce Mair			
	Alexandra Shackleton			
	Phil Trathan			
Corresponding Members	Jan Cheek	Falkland Islands		
	Deirdre Mitchell	South Georgia		
Data of Novt Event (2025) and AGN (2026)				

- 7 Date of Next Event (2025) and AGM (2026)
- 8 Any Other Business

FCDO SUPPORT OF SGSSI OVER THE PAST YEAR

Jane Rumble OBE (Head of Polar Regions Department)

The Polar Regions Department of the Foreign, Commonwealth and Development Office has continued to support the work of HM Commissioner for SGSSI (Alison Blake CMG), the Government of SGSSI, and BAS to manage this unique and globally significant UK Overseas Territory and its environment. Our objectives



remain that South Georgia is recognised as one of the best managed remote islands in the world with good governance, sound financial management and thriving biodiversity.

In addition to providing our annual £500,000 contribution to BAS for the operation of King Edward Point research station, and the UK Government's Blue Belt Programme continuing its support to science, monitoring and surveillance of the Marine Protected Area (MPA), we were pleased to award new project funding to the GSGSSI for the development of a Research and Monitoring Plan for the Terrestrial Protected Area (TPA). We also prepared a Statutory Instrument, the South Georgia and South Sandwich Islands (Territorial Sea) (Amendment) Order 2024, which has ensured accurate measurements of the Territorial Sea following improvements and revisions to the mapping of South Georgia. The SGSSI flag was flown from the FCDO's joint headquarters in London on 17 January 2025 to mark the 250th anniversary of Captain Cook claiming South Georgia for Great Britain.

GOVERNMENT OF SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS

Laura Sinclair Willis (Chief Executive)

Marine Conservation Efforts In February, GSGSSI expanded the South Georgia MPA by an additional 187, 000 sq. km of "No Take Zone" to incorporate regions noted for their importance for use by marine mammals including humpback whales and fur seals. These "No-Take Zones" prohibit all fishing and extractive activities to safeguard critical habitats. Around 37% of the MPA is now closed to all fishing activity. The expansion followed a comprehensive scientific review in 2023/24, the second since the inception of the MPA, reflecting the government's commitment to evidence-based environmental management. The GSGSSI also funded and facilitated a groundfish survey from a commercial fishing vessel in early 2025 in partnership with BAS and commenced the tender process for a new fisheries protection vessel to replace *Pharos SG* in 2028.

<u>Cultural Heritage and Commemorations</u> This year marks the 250th anniversary year of Captain James Cook's 1775 landing on South Georgia. To commemorate this milestone, the South Georgia Museum in Grytviken has launched a dedicated exhibition titled "250 Years of Discovery," highlighting Cook's voyage and the island's subsequent history, with a parallel public event planned in Dundee in June 2025. The museum, housed in the restored 1914 villa of the former whaling station manager, continues to play a pivotal role in preserving and showcasing the island's cultural heritage. Additionally, GSGSSI has entered into a new agreement with Tower Mint Ltd., a UK-based company, to produce a series of commemorative coins celebrating South Georgia's unique wildlife and heritage.

Monitoring Significant Events This included the drift of the massive iceberg A23a which broke off from Antarctica in 1986 and grounded on the continental shelf off South Georgia in early 2025. The disintegration of A23a is unlikely to have a significant impact on the island's inhabitants, although it may present hazards to maritime navigation due to the proliferation of large ice fragments. A film crew from Sky News were able to capture footage of the iceberg by joining an A400 COLD STARE flight over the island, facilitated by the Royal Air Force and British Forces South Atlantic Islands.

<u>Conservation and Research</u> The government issued 90 "Regulated Activity Permits" in the 24/25 season, for a variety of projects including an increasing amount of citizen-science activity delivered from cruise ships. Two main research projects were delivered from King Edward Point, including a second year of activity by the Darwin Plus funded *Hungry Humpbacks* team undertaking whale science, and a Cornell University project seeking to better understand the distribution of HPAI in the Territory. A revised version



of the King Edward Point Science Plan was also finalised and published, which included the continuation of long-term monitoring of study colonies as well as mainstreaming of previously grant-funded work such as winter trawls for krill utilising the echosounder that was installed on *Pharos SG* in 2022.

Biosecurity A strong focus on biosecurity has been maintained. Building on past projects targeting nonnative invasive species, in late 2024 a small team funded by the Darwin Plus local scheme visited the island to undertake work to eradicate some invasive invertebrates that had been discovered in the previous season. In addition, the second phase of a research project into the threat of non-native marine invasive species has also concluded, which will inform future biosecurity policy decisions.

RECENT ACTIVITIES OF SOUTH GEORGIA HERITAGE TRUST Alison Neil MBE (Chief Executive Officer)

The work to stabilise the Stromness Manager's Villa (built 1912), with its links to Shackleton and the *Endurance*, is planned to begin in November 2025, subject to GSGSSI approval. A team including heritage carpenters from Sandefjord in Norway will repair the Villa, so that it can be saved for future generations.

In parallel, the Key Table of the Whale Memorial named *Commensalis* will be installed on the Flensing Plan at Grytviken. This stunning sculpture will incorporate a "Nightingale Rose Chart" representing six whale species, with one original rivet from Stromness Whaling Station signifying 50 whales hunted and killed at South Georgia. The memorial is to be unveiled at the 'Whale of a Weekend' event in Dundee in late June, which will also see the launch of the Whalers' Memory Bank, a South Georgia Museum initiative to create a digital portal for former whalers and their families, thereby capturing the memories of their lives on the island. Historian, and TV presenter Dan Snow will deliver a talk on the Whalers' Memory Bank, and introduce John Shears and Nico Vincent, who will recount the 2022 discovery of the wreck of *Endurance* and explore the connection with the Stromness Manager's Villa.

In November 2026, Dan and John hope to recreate Shackleton, Worsley and Crean's 1916 traverse of South Georgia and finish by walking up to the newly stabilised Villa. In conjunction with this, SGHT is chartering the Swan Hellenic ship *Vega* for a special "South Georgia only" cruise which could offer SGA members the trip of a lifetime.

THE MORAG HUSBAND CAMPBELL MEDAL

The award was made possible by the generous bequest of a long-standing supporter of the South Georgia Association, Morag Husband Campbell. The medal can be awarded annually to individuals who have contributed significantly to the understanding, appreciation and promotion of South Georgia. This would encompass scientific studies; arts and humanities including culture, history, heritage and artistic endeavour; adventurous travel and exploration; activities which enhance the wider appreciation of South Georgia (e.g. in the media or through administrative functions).

For more information see https://southgeorgiaassociation.org/the-morag-husband-campbell-medal/



AWARD FOR 2023 - DR FREDERIK PAULSEN

Awarded for outstanding and sustained support for the ecological restoration, preservation of heritage and enhancement of scientific knowledge of South Georgia.

Frederik's interest in the island is long and enduring, and his support of diverse initiatives to benefit South Georgia has been key to some of the most important positive changes on the island in recent times. Frederik helped to set up the SGHT in 2005, in collaboration with the charity's founder and first Chairman, the late Brigadier David Nicholls RN.

His early and substantial financial support of the South Georgia Habitat Restoration project to eradicate rats and mice from the island (2007-2018) allowed the purchase of three helicopters used to spread bait on the island, in the largest eradication project ever attempted. The project's success and the subsequent return of native birds, some of which were under threat of extinction, has become a worldwide example of good conservation practice.

Frederik has also instigated and supported various projects aiming to preserve some of the island's rich British and Norwegian human heritage. A recent gift enabled a survey of South Georgia's whaling stations in November 2022 - a prerequisite to the planned stabilisation of the Whaling Manager's Villa at Stromness in November 2025, with its historical links to Sir Ernest Shackleton and the Imperial Trans-Antarctic Expedition.





PREVIOUS RECIPIENTS

2024 Ian Hart

For his significant contributions to the history, heritage and knowledge of South Georgia.



In recognition of his outstanding and dedicated contributions to South Georgia – in particular his pivotal role in the South Georgia Heritage Trust Habitat Restoration Programme of the Island and as a consequence promoting a wider appreciation of these islands.

2021 Robert Headland

For outstanding and sustained contributions to the history and knowledge of South Georgia and to extending the wider appreciation of the island.

2020 Caradoc 'Crag' Jones

For contribution to fisheries management and scientific studies, and for championing adventurous travel, exploration and mountaineering on South Georgia.

2019 Sally Poncet

For outstanding contributions to the study and conservation of wildlife and heritage of South Georgia.

2018 Robert Burton

For outstanding contributions to the study and conservation of wildlife and the heritage of South Georgia.

SEAL AND SEALING

Connor Bamford (BAS)

South Georgia Island has witnessed the dramatic exploitation of its endemic fauna, particularly its seal populations, which were nearly driven to extinction by commercial sealing in the 18th and 19th centuries. These populations have since undergone significant shifts, not only due to historical exploitation, but also in response to more recent environmental changes. This talk will explore the historical context of sealing at South Georgia, the remarkable recovery of seal populations, and current research aimed at understanding their population dynamics under new and evolving stressors.

Dr Connor Bamford is a postdoctoral marine ecologist at BAS, specialising in the use of high-resolution satellite imagery, integrated with AI approaches, to study seal populations in the Southern Ocean. His most recent postdoctoral research focuses on understanding how recent shifts in climate have impacted crabeater seal populations on the Western Antarctic Peninsula, and how elephant seals are faring at South Georgia. Connor holds a BSc in Environmental Science from the University of Southampton and an MPhil in Polar Studies from the University of Cambridge. He completed his PhD at BAS from 2017-2021, where he continues to contribute to conservation science and marine ecosystem management between the ecosystems and wildlife from space teams.







SOUTH GEORGIA WHALES: PAST, PRESENT AND FUTURE

Jen Jackson (BAS)

South Georgia is an important summer feeding ground for multiple species of whales, including humpback, Antarctic blue, fin and southern right whales. It was also a whaling hotspot in the early 20th century, with over 174, 000 whales killed in under two whale generations. The impact of this fishery on whale stocks will be discussed and the variety of new tools used to study whale recovery presented. These tools include the satellite tracking of individuals, and using drones, acoustics and genetics to understand how whales use this important feeding ground. What the future holds for these recovering populations will be considered, given their dependencies on krill, with its links to climate change, and their vulnerability to anthropogenic impacts both near and distant.

Dr Jen Jackson is a marine biologist who studies the recovery of whales from whaling in the Antarctic, how whale populations are connected around the Southern Hemisphere, and what types of habitats they like. She has been leading a whale research programme at South Georgia (the "Wild Water Whales" project) since

2017 to investigate the populations of southern right, humpback, blue and fin whales that are returning to these waters since whaling ceased.



NEW PREDATOR SCIENCE – HIGHLIGHTS, QUESTIONS, AND CHALLENGES! Ashley Bennison (BAS)

The challenge of monitoring predators is how to keep up with developing technology while also staying relevant to long term studies. I will present some of the developing predator research that looks to answer new questions or even new ways of answering old questions! New research includes examples from the "up close" work with new species through to drone imagery, and to satellites! The advantages, and challenges of using these new approaches are explored. This new and developing predator science utilising cutting-edge technology is revealing new insights to ecology on South Georgia.



Ash Bennison is the Bird Island Science Manager at BAS, working on the long-term monitoring at Bird Island, and developing new methods for understanding the behavioural ecology of marine predators. He has been

at BAS for three years after spending a decade undertaking seabird and marine mammal research in Ireland including tagging studies and aerial surveys.

OCEAN ECOSYSTEM SCIENCE: NEW INSIGHTS FROM AN UNUSUAL YEAR Sally Thorpe (BAS)

Long-term monitoring of the South Georgia marine ecosystem is a core aspect of the British Antarctic Survey Ecosystems science programme. An update on the marine ecosystem science that has been carried out around South Georgia in the last year, including a research cruise on the RRS *Sir David Attenborough* in February-March will be provided. The 2024/2025 season was unusual in several ways for South Georgia and the Scotia Sea, and these are described in the context of our ecological monitoring time series and larger-scale observations of climate change.

Sally is an ecological modeller and head of the Pelagic Ecosystems Group at BAS. Her research is focused on understanding the role of the physical environment in the distribution of key species within the Southern Ocean ecosystem. She has participated in nine research cruises to South Georgia and the Scotia Sea, spanning 1997 to 2025.





MARINE MANAGEMENT AND PROTECTION

Martin Collins (BAS)

Marine management in South Georgia waters is a combination of the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) system, and the domestic management implemented by GSGSSI. The recent history of exploitation and subsequent marine management at South Georgia including the establishment of CCAMLR, the proclamation of the maritime zone and development of domestic fishery management regulations, and the creation and revisions of the MPA will be described.

Martin Collins OBE, FMBA is a marine ecologist at BAS and is the UK's Scientific Representative to CCAMLR. He first visited South Georgia in 1997 to investigate the abundance and behaviour of Patagonian toothfish and has been a regular visitor since. Martin was the Chief Executive and Director of Fisheries for GSGSSI from 2009 to 2015, a period that included the creation of the MPA, and the eradications of reindeer, rats and mice.



NEW THREATS INCLUDING CLIMATE CHANGE

Dr Ryan Reisinger (School of Ocean and Earth Science, University of Southampton)

I will examine South Georgia's marine ecosystem through a century of observation and management while considering potential futures for this unique environment. Over the past century, the South Atlantic has undergone significant environmental transformation, with rapid physical oceanographic changes alongside changes in the distribution and abundance of marine life. These shifts alongside the historical exploitation of krill, Patagonian toothfish, and marine mammals in the region will be reviewed. Drawing on published and forthcoming research, projections for distribution changes across trophic levels, exploring how climate-driven alterations may create spatial mismatches between predators and their prey will be presented. Central to this discussion is CCAMLR's ecosystem-based management framework, which aims to balance resource exploitation with ecosystem protection. The effectiveness of these measures alongside the additional protections provided by South Georgia's Marine Protected Area have been assessed, and specific challenges within CCAMLR's consensus-based approach to adapting krill fishery regulations in response to climate change will be highlighted. Scientific monitoring programmes inform our understanding of emerging threats while identifying persistent governance challenges that may undermine conservation efforts in this extraordinarily biodiverse region as environmental pressures intensify.





Dr. Ryan Reisinger is an Associate Professor at the University of Southampton, specializing in the ecology of top predators in the Southern Ocean. His research focuses on the movement patterns, habitat use, and foraging behaviour of marine mammals in Antarctic and sub-Antarctic ecosystems. Dr. Reisinger uses advanced field techniques and analytical tools to investigate how whales, seals, and other predators respond to environmental change, and how their distributions intersect with fisheries and protected areas. Through his research, Dr. Reisinger strives to bridge the gap between fundamental ecological science and applied conservation, supporting the protection of one of the world's most rapidly changing marine environments.



DOS 610 1958 1:200000



SOUTH GEORGIA 250th ANNIVERSARY DINNER

SIGHTING THE WILLIS ISLANDS

White onion soup, served with fresh focaccia, crispy shallots & whipped butter Cured trout, dill crème fraiche, pickled baby beetroot, charred corn, with fresh herbs Braised ox cheek, horseradish cream & polenta bon bon

COOK'S LANDING

Pan fried hake, butter sauce split with a herb emulsion, crispy mussels & samphire Herb crusted venison loin, pickled pear compôte, celeriac purée served with pan fried baby gem & finished with jus Wild mushroom lasagna with frisée lettuce & fresh truffle

DEPARTING CLERKE ROCKS

Lemon meringue tart with lemon sorbet, candid lemon and poppy seed crumb Summer fruit pavlova with berry gel & baby mint Fresh fruit & sorbet

TEA & COFFEE

THE TOAST

"Captain James Cook, the Crew and the Scientists of HMS Resolution"

SOME USEFUL LINKS

British Antarctic Survey	https://www.bas.ac.uk/
British Antarctic Survey Club	https://basclub.org/
Blue Belt Programme	https://www.gov.uk/guidance/the-blue-belt-programme
Darwin Plus (UK Government Grants Scheme	e) <u>https://darwinplus.org.uk/</u>
Government of South Georgia and the South	n Sandwich Islands <u>http://www.gov.gs/</u>
James Caird Society	https://jamescairdsociety.com/
Oyas Venner	http://www.oyasvenner.org/
South Georgia Association	http://www.southgeorgiaassociation.org/
South Georgia Heritage Trust	http://www.sght.org/
Scott Polar Research Institute	https://www.spri.cam.ac.uk/
United Kingdom Antarctic Heritage Trust	https://www.ukaht.org/



ATTENDEES

Richard Adderton	Philippa Foster Back	Alison Neil
Anthony Airey	Adrian Fox	Robert Paterson
Nina Ashton	Harriet Gillett	Frederik Paulsen
Robert Ashton	Sarah Greenwood	Bruce Pearson
Louise Baker	John Hall	Jayne Pierce
Connor Bamford	Deirdre Hanna	Frances Prince
Juliet Barrows	Robert Headland	Ryan Reisinger
Bjørn Basberg	Joshua Holder	Paul Rodhouse
Ashley Bennison	leuan Hopkins	Graham Sadler
Cindy Buxton	Adrian Hughes	John Shears
Hilary Chester	lan Hunter	Liz Shears
John Chester	Sally Hunter	Laura Sinclair Willis
Andrew Clarke	Jen Jackson	Luke Smith
Martin Collins	Bob Jay	Stephanie Strutt
Katie Costello	Martin Kelly	Britta Sugden
John Croxall	Denise Landau	David Sugden
Jane Cuthbert	Tom Lynch	Jeremy Tallowin
David Drewry	Bruce Mair	Sally Thorpe
Rachel Duncan Morgan	Katie Milne	Philip Trathan
Jeremy Dwight	Maureen Neary	Daniel Yarker
Alan Esnouf		

Dr. Bruce F. Mair 10 June 2025