

Centre for Environment Fisheries & Aquaculture Science





Blue Belt Programme programme highlights 2016-2020

Over the past four years the Blue Belt Programme has enhanced marine protection across 4 million square kilometres of marine environment in the UK Overseas Territories.

The UK Overseas Territories are some of the most biologically interesting, and remote, places on Earth. From the vast penguin colonies of South Georgia & the South Sandwich Islands to the marine turtles of Ascension Island, the UK Overseas Territories are home to globally significant biodiversity.

The Blue Belt Programme was initially established from 2016-2020, with funding from the Conflict, Stability and Security Fund. Since 2016 the Blue Belt Programme has worked closely with the UK Overseas Territories to help them enhance the protection and management of their precious marine environments by:

- improving scientific understanding of the marine environment
- assisting in the development and implementation of evidence-based, tailored marine management strategies including surveillance and enforcement
- providing support to ensure sustainable and longterm management

This flagship programme has been central to the UK government's ambition of leading action to tackle the serious global problems of overfishing. It is supported by two world leading organisations - the Centre for Environment, Fisheries and Aquaculture Science (Cefas) and the Marine Management Organisation (MMO) on behalf of the UK government.

During the programme extension the UK Overseas Territories will build on the success of the first 4 years of the programme in partnership with Cefas and MMO and other UK government experts, while increasing on island capacity, and developing external partnerships.

We hope you enjoy reading some of our 2016-2020 highlights.



I am delighted that working with the Overseas Territories, the UK government has delivered one of the most ambitious conservation policies ever. It builds on the success of the Blue Belt Programme, which has seen over 4.3 million square kilometres of ocean protected since 2016.

This is a huge achievement and is a vital step in protecting the world's biodiversity, wildlife habitats and ecosystems. It also demonstrates that our vision of protecting at least 30% of the global ocean by 2030 can be realised. Blue Belt scientist lowering an underwater camera during the Henderson Expedition

LORD GOLDSMITH

Minister for Pacific and the Environment

ASCENSION ISLAND

Ascension Island is situated in the tropical South Atlantic surrounded by an Exclusive Economic Zone covering over 440,000 square kilometres that supports globally important marine life including large predators and green turtles.

Since 2016 the Blue Belt Programme helped to develop and enhance marine protection in Ascension Island. Highlights include:

- Providing information, analysis and advice to support the Ascension Island Government and Island Council decision to designate 100% of their Exclusive Economic Zone as a Marine Protected Area.
- Advising the Ascension Island Government on how to amend and prepare legislation to underpin the Marine Protected Area.
- Participating in the organisation and delivery of the first Blue Belt Symposium, led by Ascension Island Government. Speakers included Overseas Territories, the UK government Blue Belt team, non-governmental organisations, researchers, industry professionals and more.
- Supporting the Ascension Island Government to develop their Marine Protected Area Management Plan to ensure their Exclusive Economic Zone is effectively managed and monitored.
- Supporting the development of a bespoke fisheries compliance and enforcement strategy for the Ascension Island Government.





Chinstrap penguin in British Antarctic Territory

Since 2016 the Blue Belt Programme helped to develop and enhance marine protection in British Antarctic Territory. Highlights include:

- Undertaking a comprehensive review of fishing activity in the region to help inform management strategies.
- Developing satellite surveillance to support enforcement and explore alternative surveillance tools in the region.
- Providing support, where needed, for the South Orkneys Southern Shelf Marine Protected Area review conducted by Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) in 2019.
- Collaborating with British Antarctic Survey on marine science and advice on management in the British Antarctic Territory.

BRITISH ANTARCTIC TERRITORY

The waters around the British Antarctic Territory are amongst the most productive in the Southern Ocean, supporting large populations of krill, which feed larger predators, such as baleen whales, penguins and seals.

BRITISH INDIAN OCEAN TERRITORY



The British Indian Ocean Territory (BIOT) is in the central Indian Ocean surrounded by a 640,000 square kilometre maritime zone. BIOT's small islands and atolls support globally significant biodiversity.

Since 2016 the Blue Belt Programme helped to develop and enhance marine protection in the British Indian Ocean Territory. Highlights include:

- Supporting the BIOT Administration develop new environmental priorities. These priorities will ensure BIOT's Marine Protected Area continues to be effectively managed.
- Conducting a water quality survey around Diego Garcia. The results of which will help the BIOT Administration manage human activities in Diego Garcia.
- Supporting compliance and enforcement in BIOT. Blue Belt Programme has set up and run frequent and comprehensive surveillance across the territory, supplied new equipment to support enforcement activities and built relationships between the BIOT Administration and external organisations to improve daily patrol operations.
- Providing on going intelligence and live operational support during a multi-agency operation involving MRAG, BIOT Administration and EMSA. The operation resulted in the interception, detention and prosecution of a vessel illegally fishing in the BIOT Exclusive Fishing Zone.





Microplastic samples collected during the Henderson Expedition

Since 2016 the Blue Belt Programme helped to develop and enhance marine protection in the Pitcairn Islands. Highlights include:

- Assisting the Government of the Pitcairn Islands to develop the Pitcairn Islands Marine Protected Area management plan in consultation with the local community. The management plan will ensure the Marine Protected Area is effectively managed over the next 5 years.
- Supporting the Government of the Pitcairn Islands to develop a code of conduct for whale watching. The Blue Belt Programme provided assistance to create a booklet and a leaflet to communicate the code of conduct to the local community and visitors and supported on island practical training for the community.
- Two marine surveys to Pitcairn Island and Henderson Island. The surveys produced a wealth of data, including 8,000 images, which have been used to produce seabed maps to improve understanding of the marine environment and inform Pitcairn Islands' Marine Protected Area management plan.
- Providing advice on the drafting of new Marine Conservation Regulations to underpin the management of the Marine Protected Area.
- Providing on island training on intelligence reporting, Marine Protected Area management and environmental data collection and held several meetings with the local community.

PITCAIRN ISLANDS

The Pitcairn Islands are in the South Pacific Ocean with one of the largest Exclusive Economic Zones in the world. The Pitcairn Islands are home to amazing biodiversity from hundreds of species of fish to exceptionally preserved coral ecosystems.

Blue Belt Programme

programme highlights from 2016-2020

Enhancing marine protection across 4 million square kilometres of marine environment in the UK Overseas Territories

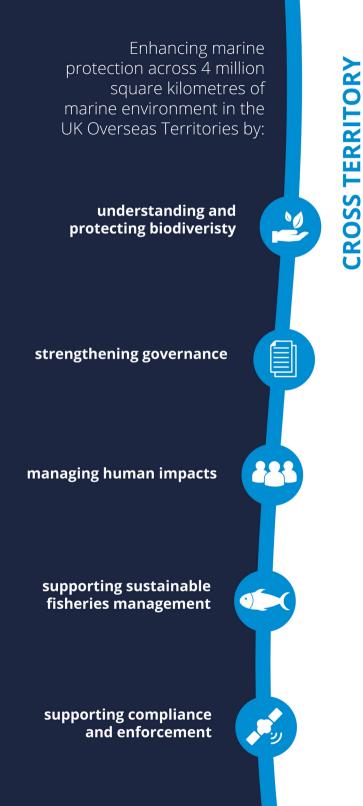


Centre for Environment Fisheries & Aquaculture Science

₩ UK Government



Blue Belt Programme highlights from 2016-2020



Developed risk profiles to target surveillance activity utilising over 142 million square kilometres of satellite imagery. Marine Officers joined patrols in Ascension Island and Fristan da Cunha and live patrol support was provided to South Georgia & the South Sandwich Islands (SGSSI) and British Indian Ocean Territory (BIOT).

Researched current and future technologies the territories may want to adopt or invest in to help identify illegal activity.

Established the Blue Belt surveillance and intelligence hub a centralised point to collate, analyse and share intelligence with the UK Overseas Territories.

Trialled drones in BIOT, Uganda, Canada and Belize to improve the functionality to support live patrols and identify illegal fishing vessels.

Supported the Maritime and Coastguard Agency and the GB Non-Native Species Secretariat to understand the territories capacity to respond to marine pollution emergencies and invasive species.

Provided on island and online training to staff across the UK Overseas Territories to support compliance and enforcement.

MORE ON PAGE 8



Supported the Ascension Island develop their marine management and action plan to sustainably manage and monitor their Marine Protected Area

Provided analysis, evidence and advice to support Ascension Island

Government and Island Council's decision to designate a 100% fully



Participated in the development and delivery of the first Blue Belt nposium.

MORE ON PAGE 1

ASCENSION ISLAND

Identified key habitats, species, and threats to inform the Tristan da Cunha Island Council's decision on their marine protection strategy. Conducted policy analysis to help the Island Council identify the most appropriate legislative approach to underpin their strategy.



Provided Tristan da Cunha with a new vessel for inshore biodiversity nonitoring and refurbished their fisheries patrol vessel.

Provided UK-based training in compliance and enforcement for Tristan da Cunha Fishery Department staff and supported the training of additional scientific observers to monitor fishing operations.



Provided capacity building to staff from Tristan da Cunha's Fisheries Department, including vessel maintenance, sea survival techniques, compliance and enforcement, and data management.

MORE ON PAGE 7

TRISTAN DA CUNHA

PITCAIRN ISLANDS



Supported the Government of the Pitcairn Islands develop a code of conduct for whale watching. The Blue Belt Programme provided assistance to create a booklet and a leaflet to communicate the code of conduct to the local community and visitors and supported on island practical training for the community.



Conducted two marine surveys to Pitcairn Island and Henderson Island. The surveys produced a wealth of data, including 8,000 images, which have been used o produce seabed maps to improve understanding of the marine environment.

MORE ON PAGE 4

BRITISH ANTARTIC TERRITORY



Undertaken a comprehensive review of fishing activity in the region to help inform marine management strategies.

MORE ON PAGE 2

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Supported the UK Overseas Territories to improve compliance with International Commission for the Conservation of Atlantic unas (ICCAT) measures, contributing valuable scientific evidence for the regional management of migratory species. Over 1500 fish have been tagged in St Helena and local staff have been trained in in electronic tagging techniques to support ongoing monitoring.



Provided funding to support the marine crown counsel in St Helena produce essential legislation to help St Helena, Ascension Island and Tristan da Cunha effectively manage and enforce their

Supported the St Helena Government develop strategies to nanage human activities including marine tourism, water quality and sand extraction.

Built St Helena's capacity by funding an on-island coordinator, a Marine Enforcement Officer, a Fisheries Officer and a new laboratory which, once complete, will enable marine science studies and monitoring.

MORE ON PAGE 5

ST HELENA

BRITISH INDIAN OCEAN TERRITORY

Supported the British Indian Ocean Territory (BIOT) Administration develop new environmental priorities to ensure BIOT's Marine Protected Area continues to be effectively managed.

Conducted a water quality survey around Diego Garcia, the results of which will help the BIOT Administration manage human

Provided on going intelligence and live operational support during a multiagency operation which resulted in the interception, detention and prosecution of a vessel illegally fishing in BIOT

MORE ON PAGE 3

SOUTH GEORGIA & THE SOUTH SANDWICH ISLANDS



Supported the Government of South Georgia & the South Sandwich Islands (SGSSI) with Marine Protected Area management and their first five-year review of the area.

Developed models predicting where vulnerable habitats are likely to be located within the SGSSI's Marine Protected Area.



Procured and deployed camera systems on research and commercial fishing vessels to test and alidate the outputs and management advice.

MORE ON PAGE 6



Two of the marine surveys visited Tristan da Cunha and St Helena. The team travelled 10.000 nautical miles, trained UK Overseas Territory staff, and mapped over 100,000 square kilometres of seabed including 12 seamounts.

Two of the marine surveys visited South Georgia & the South Sandwich Islands. They produced over 4000 images, 30 hours of video for analysis and 500 specimens that contributed to the British Museum collection and the Darwin Tree of Life project for future scientific study.



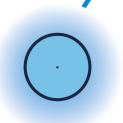
The RRS Discovery surveys generated over 1000 social media posts and made 60 million impressions on twitter using the hashtags #DY99 and #DY100.

MORE ON PAGES 5, 6 AND 7





ST HELENA



St Helena is an isolated oceanic island, located in the sub-tropical South Atlantic. The waters support a range of marine life including endemic and migratory species such as whale sharks, humpback whales and turtles.

Since 2016 the Blue Belt Programme helped to develop and enhance marine protection in St Helena. Highlights include:

- Supporting the St Helena Government to update their fisheries legislation, ensuring fisheries in St Helena are sustainably managed.
- Provided funding to support the marine crown counsel in St Helena. The crown counsel produces essential legislation to help St Helena, Ascension Island and Tristan da Cunha effectively manage and enforce their waters.
- Conducted two major marine surveys around St Helena to improve our understanding of their marine environment addressing gaps in our knowledge. During the surveys, the Blue Belt team trained local staff, mapped the sea floor, gathered water samples, and collected biological specimens and more.
- Offered advice on the sustainability of St Helena's current and future fishing practices. Tagged over 1500 fish and trained local staff in electronic tagging techniques to support ongoing monitoring.
- Supported the St Helena Government develop strategies to manage human activities in their marine protected area, including marine tourism, water quality and sand extraction.
- Provided equipment, training and funding for a Marine Enforcement Officer to support compliance and enforcement in St Helena's waters.
- Built on island capacity by funding an on island coordinator, a fisheries officer and a new laboratory which, once complete, will enable safe and effective marine science studies and monitoring around the island.
- Held a workshop in St Helena to better understand the issues experienced by the territories and the support that the Blue Belt Programme could provide going forward.

Masked Booby birds in St Helena



Since 2016 the Blue Belt Programme helped to develop and enhance marine protection in South Georgia & the South Sandwich Islands (SGSSI). Highlights include:

- Supported the Government of South Georgia & the South Sandwich Islands with Marine Protected Area management and their first five-year review of the area.
- Conducted two major marine surveys to South Georgia & the South Sandwich Islands. The surveys produced over 4000 images, 30 hours of video for analysis and 500 specimens that contributed to the British Museum collection and the Darwin Tree of Life project for future scientific study.
- Developed models to help SGSSI predict where vulnerable habitats are likely to be located in their Marine Protected Area.
- Procured and deployed camera systems on research and commercial fishing vessels to test and validate the outputs and management advice.
- Developed a procedure to help SGSSI gather and record information on fishing vessel activities to support their compliance and enforcement.

SOUTH GEORGIA & THE SOUTH SANDWICH ISLANDS

South Georgia & the South Sandwich Islands (SGSSI) are a sub-Antarctic archipelago in the Atlantic sector of the Southern Ocean with a Marine Protected Area covering over 1.2 million square kilometres. The territory is home to exceptional wildlife including vast penguin colonies and migrating whales.

The RRS Discovery at Tristan da Cunha during the Discovery Expedition

Since 2016 the Blue Belt Programme helped to develop and enhance marine protection in Tristan da Cunha. Highlights include:

- Providing improved knowledge of Tristan da Cunha's inshore, seamount and open ocean ecosystems identifying key habitats, species and threats. Working with the Tristan da Cunha Island Council to inform their marine protection strategy based on this information and conducting policy analysis to help the Island Council identify the most appropriate legislative approach to underpin their strategy.
- Conducting two major marine surveys around Tristan da Cunha waters on the RRS Discovery and the RRS James Clark Ross to improve our understanding of the marine environment. During the surveys, the Blue Belt team trained local staff, surveyed key fishing grounds, mapped the sea floor, gathered water samples and collected physical specimens.
- Providing Tristan da Cunha with a new vessel for inshore biodiversity monitoring. Refurbished Tristan da Cunha's fisheries patrol vessel and provided extensive training to members of the Tristan da Cunha's fisheries department on vessel maintenance and at-sea survival techniques.
- Providing UK-based training in compliance and enforcement for Tristan da Cunha Fisheries Department staff and supported the training of additional scientific observers to monitor fishing operations.
- Supporting Tristan da Cunha Fisheries Department to streamline their fishery data management systems
- Helping Tristan da Cunha designate a recommended 'Area To Be Avoided' around the islands to encourage shipping traffic to keep a safe distance from Tristan da Cunha's vulnerable habitats.

TRISTAN DA CUNHA

Tristan da Cunha is an isolated archipelago in the South Atlantic. It is thought many species in Tristan da Cunha's highly productive waters are endemic, having evolved in complete isolation.

CROSS TERRITORY

Much of the work of the Blue Belt Programme applies across several, or all, of the UK Overseas Territories (UKOTs).

Since 2016 the Blue Belt Programme helped to develop and enhance marine protection across the UK Overseas Territories. Highlights include:

- Developing risk profiles and a Blue Belt Surveillance and Intelligence Hub. A centralised point to analyse and disseminate intelligence to UKOTs.
- Using over 142 million square kilometres of satellite imagery to detect illegal unregulated and unreported fishing across the UKOTs. Supporting patrols in Ascension Island and Tristan da Cunha.
- Building relationships with 9 flag states, all of which have provided data to support investigations into illegal fishing.
- Providing on island training to staff across the UKOTs and developing online training packages to support compliance and enforcement.
- Improving visibility and compliance of the UKOTs within Regional Fisheries Management Organisations such as ICCAT and influencing the development of key legislation to support tackling illegal, unreported and unregulated fishing.
- Building a prototype analysis tool for UKOTs working with the SCISYS Group. The tool could give UK Overseas Territories access to surveillance monitoring from low-cost or free sources.
- Trialling drones in BIOT, Uganda, Canada, and Belize to improve the functionality to support live patrols and identify illegal fishing vessels.
- Developing bespoke technology roadmaps for each UKOT. The roadmaps look at current and future technologies the territories may want to adopt or invest in to help identify illegal maritime activity.
- Working with the GB Non-Native Species Secretariat to improve biosecurity in the UKOTs. Reviewing the risks of marine non-native species in St Helena, Tristan da Cunha, Ascension, Pitcairn and BIOT.
- Supporting the Maritime and Coastguard Agency to understand UKOTs' capacity to respond to marine pollution emergencies.

A long-range unmanned aerial vehicle during testing in BIOT

Blue Belt Programme highlights 2016-2020 | 7

The Blue Belt Programme has been central to the UK government's ambition of leading action to tackle the serious global problems of overfishing, species extinction and climate change.

It has been driven by the 25 Year Action Plan and UN Sustainable Development Goals (SDG14), and more recently by the UK's commitment to ensure 30% of the world's oceans are protected by the end of the decade in 2030.

The next phase of the Blue Belt Programme, funded by the Foreign, Commonwealth & Development Office (FCDO) and Department for Environment, Food & Rural Affairs (Defra), will contribute to the global aspiration to protect, manage and conserve vast areas of the marine environment.

Cefas and the MMO are continuing to work closely with UK Overseas Territories and external partners to:

- Support implementation of management plans, and ongoing monitoring, compliance and enforcement to ensure that the pristine, unique and highly diverse marine environments will be conserved and sustainably managed into the future.
- Demonstrate the effectiveness of the current marine protected areas and comprehensive management regimes.
- Further build capacity and skills in the Overseas Territories, by supporting infrastructure, training and incountry roles to ensure a long term programme legacy.
- The programme will also, where possible, seek to support new UK Overseas Territories who wish to join the programme and gather evidence to demonstrate the benefits of the Blue Belt Programme considering wider ocean issues including climate change and plastic pollution.





For more information about the Blue Belt Programme:

Web:	www.gov.uk/government/publications/the-blue-belt-programme
Email:	Bluebelt@cefas.co.uk
Twitter:	@UKGovBlueBelt
Facebook:	www.facebook.com/ukgovBlueBelt
Blog:	marinedevelopments.blog.gov.uk/category/blue-belt
Research :	gov.uk/government/publications/the-blue-belt-programme

Cover image taken during the Henderson Expedition, credit: Luke Hosty, Protect Blue