2020/21

Blue Belt Programme

Annual Update for Financial Year 2020/21

UK Government

UK Government

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The Blue Belt Programme is an ambitious UK Government commitment to enhance protection and management across more than 4 million square kilometres of ocean around the UK Overseas Territories.

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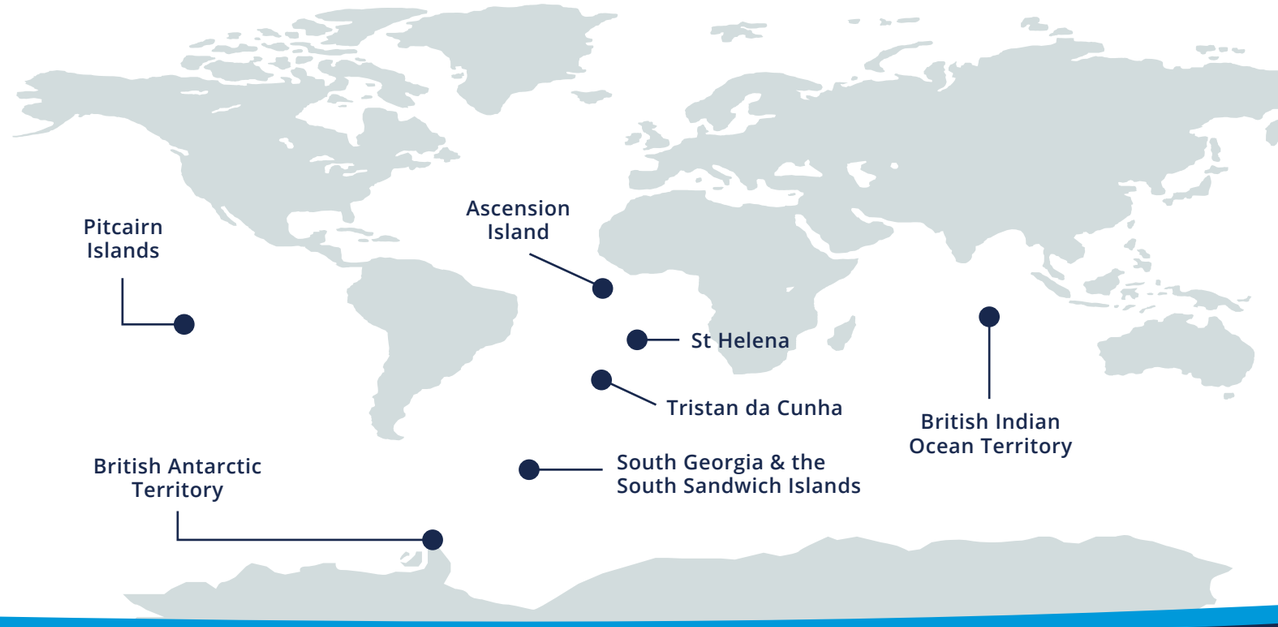


Introduction

The Blue Belt Programme supports protection of the marine environments around the UK Overseas Territories of Ascension Island, St Helena and Tristan da Cunha (classed as one territory but each ecologically unique), British Antarctic Territory, British Indian Ocean Territory, Pitcairn Islands and South Georgia & the South Sandwich Islands.

These territories are home to some of the most biologically valuable and unique life on Earth, from the butterfly fish of St Helena to the vast penguin colonies of South Georgia & the South Sandwich Islands.

The Blue Belt Programme is the largest marine conservation programme of its kind in the world. It is driven by United Nations (UN) Sustainable Development Goals and the Convention on Biological Diversity, and underpins the 25 Year Environment Plan and global ambition for 30% of the world's oceans to be protected by 2030. It is central to the UK Government's ambition of leading global action against illegal fishing, climate change and biodiversity loss.

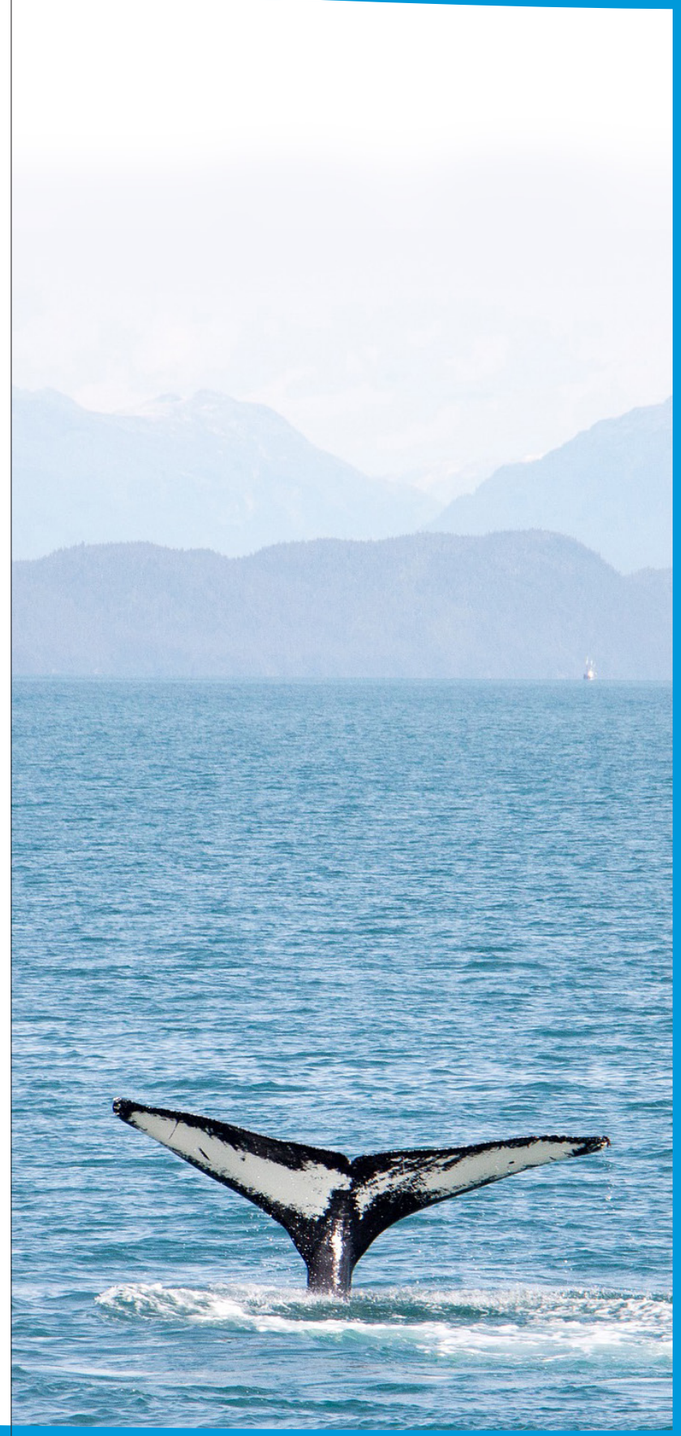
Since 2016, the Blue Belt Programme has supported the UK Overseas Territories to enhance the protection and management of their marine environments and resources.

During 2020–2021, significant developments across the programme have continued despite the COVID-19 pandemic. Tristan da Cunha made global news by designating the largest Marine Protection Zone (MPZ) in the Atlantic, a new marine management plan has been approved for Ascension Island's Marine Protected Area (MPA) and innovative drone technology has been developed to tackle illegal, unreported and unregulated fishing activity.

The Blue Belt Programme continues to support UK Overseas Territory Governments and local communities across the territories who are at the heart of the ongoing work and future ambition.

In 2020, the Blue Belt Programme was funded by the Foreign, Commonwealth and Development Office (FCDO) and the Department for Environment, Food and Rural Affairs (DEFRA). The programme is supported by delivery partners – the Centre for Environment, Fisheries and Aquaculture Science (Cefas) and the Marine Management Organisation (MMO) on behalf of the UK Government.

These organisations provide knowledge and expertise in the fields of applied marine science, management, technology, and enforcement; and work with other UK Government bodies and non-governmental organisations to ensure the Overseas Territories receive the best support available.



"The flagship Blue Belt initiative has exceeded its target of establishing over 4 million square kilometres of protected and managed oceans across the UK Overseas Territories. We are excited to build on this landmark year, working to strengthen the protection of these marine environments for future generations.

This year the Overseas Territories, supported by the Blue Belt Programme, have established new marine management plans, harnessed the latest technology to tackle illegal, unreported and unregulated fishing, and put in place legislation to strengthen governance.

The Overseas Territories are acutely aware of, and impacted by, the ocean challenges we face on a global scale – from climate change to overfishing. Programmes such as the Blue Belt show what can be achieved through coordinated action, and I am calling on the international community to work with the UK Government to protect 30% of the world's oceans by 2030."

Lord Goldsmith,
Minister for Pacific and the Environment

Ascension Island

Ascension Island sits within the South Atlantic and is home to globally important marine life, including green turtles and large predators. In 2019, the Ascension Island Council designated one of the largest MPAs in the world which covers their entire Exclusive Economic Zone (EEZ) of over 440,000 square kilometres.

Building on the designation of their MPA, the Ascension Island Government, the Island Council and the Fisheries and Conservation Department have led the development and implementation of new management and monitoring strategies. These plans are designed to conserve precious marine life and sustainably manage ongoing human activities like fishing and ecotourism.

- The work resulted in the production and publishing of the Ascension Island MPA management plan and associated documents, which were approved in February 2021.
- The Blue Belt Programme supported the Ascension Island Government with advice and acted as a robust 'sounding-board' on the MPA management plan, research and monitoring plan and financial plan.
- The programme funded a number of key roles and staff within the Ascension Island Fisheries and Conservation Department, to support with the management and implementation of the MPA.

Green turtle hatchling, Ascension Island

Squirrel fish, Ascension Island

Work has been ongoing to support sustainable fisheries management around Ascension Island.

- The Blue Belt Programme provided advice on the development of data collection programmes needed to undertake stock assessments of exploited fish and shellfish species, which include the rock hind, squirrel fish and the spiny lobster. The information collected will ensure these species are fished sustainably.
- The impact of climate change on the distribution of commercially important tuna in the waters of Ascension Island was modelled, (this work was also conducted for Tristan da Cunha and St Helena) helping to build knowledge of local fish stocks.

"We Ascension Islanders believe strongly in sustainable fishing. Our hope is to set standards to others to prove that marine life can live in harmony with their human neighbours and be fished responsibly to ensure that our fish stocks are around for future generations to come and enjoy."

Ascension Island Council

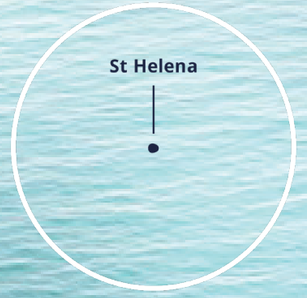
The programme has continued to assist with the compliance and enforcement of Ascension Island's MPA.

- Trials of NovaSAR satellite data are ongoing. If successful, this will help to monitor possible illegal fishing activity and improve surveillance coverage of Ascension's MPA and the vulnerable marine ecosystems surrounding its seamounts.

The Blue Belt Programme also helped support the introduction of the latest technology and techniques to better understand and protect the rich biodiversity within the MPA.

- The Ascension Island Fisheries and Conservation Department intends to establish a network of 12 inshore monitoring stations. This monitoring network will include the deployment of a suite of seawater loggers to record water temperature, salinity and conductivity.
- The data collected will inform the creation of ecosystem-based models that can assess the condition of key marine habitats and species, as well as environmental variables associated with the effects of climate change. The Blue Belt Programme funded equipment for the stations and will provide ongoing support with the project's delivery.

St Helena



St Helena is an oceanic island located in the tropical South Atlantic. The island's sustainable use MPA, established in 2016, encompasses its entire EEZ – over 440,000 square kilometres. St Helena's waters support a range of marine life including endemic and migratory species such as butterfly fish and whale sharks.

This year the Blue Belt Programme continued its supportive role working with the St Helena Government.

- The programme assisted in the development of new policies for marine tourism and marine development activities within St Helena's MPA. These policies will support the sustainable and responsible use of the MPA.
- The programme helped produce a waterproof booklet for all marine tourism operators, detailing the rules about interacting with marine wildlife in a responsible way.
- Guidance has been developed to support implementation of the new policies and licensing process.

Tuna tagging off St Helena

A tuna tagged by Blue Belt scientists

The programme has worked closely with St Helena Government to ensure the local fisheries are managed sustainably.

- Data was collected with St Helena Government and the local fishing fleet to assess stock status and provide fisheries management advice for key fish species.
- St Helena Government introduced logbooks within the fishery, providing a means of monitoring the fishing effort and catch across different areas and times.
- Tuna-tagging data was analysed (includes tags deployed by the Blue Belt Programme) to form the basis of a peer-reviewed publication on the fidelity of yellowfin tuna to the seamounts and island of St Helena.

- Plans have been developed for a Remote Electronic Monitoring trial for the offshore pole and line fishery. This complimentary tool will use cameras and GPS technology to collect data on a fishing vessel's activity. The plan has been designed to improve management effectiveness.
- The programme continued to fund a number of roles for St Helena to help implement new policies and build local capability. These include a Marine Enforcement Officer, Marine Data Apprentice, Blue Belt Coordinator and Fisheries Officer.

Glasseye fish, St Helena (Credit: Martin Collins)

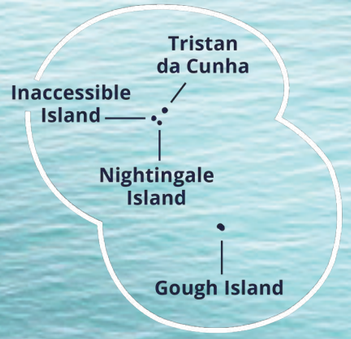
"This year the Blue Belt Programme has helped us deliver more key scientific and policy successes aimed at ensuring the effective management of our marine environment. The funding Blue Belt has provided to build our new laboratory will help to increase the capacity and capability of on island staff as well as ensuring St Helena and its research institute is a centre of excellence for marine science for years to come."

St Helena Government

Understanding and protecting the biodiversity around St Helena has also been central to the Blue Belt Programme's work.

- The island's first inshore habitat maps were developed using various data types. These describe the nature of the seabed substrate and can be used to identify areas important for key marine species.
- To better understand ocean currents around St Helena, the programme and British Antarctic Survey developed oceanographic models to determine regional ocean circulation. These will help inform future wastewater and fisheries management strategies.
- A new laboratory was funded to enable safe and effective marine science studies and monitoring on St Helena. Opening in 2021, the lab will include an interactive interpretation board to provide information on St Helena's marine environment.
- Marine Awareness Week was celebrated on the island in March 2021, with the theme "Blue Belt – Tomorrow's Ocean Today". The Blue Belt Programme produced activity booklets for St Helenian school children, aligned with the national curriculum.

Tristan da Cunha



Tristan da Cunha is an isolated archipelago in the South Atlantic, home to the world's most remote human settlement. Comprised of four main islands, its Marine Protection Zone (MPZ) covers around 700,000 square kilometres and was designated in 2020. Many species in Tristan's productive waters are endemic and depend on its environment.

In November 2020, Tristan made global news with the announcement of its marine protection strategy, ensuring the long-term protection of its marine environment. This included:

- A no-take Marine Protection Zone encompassing over 90% of its waters, in which fishing and other extractive activities like deep-sea mining are banned.
- Improved conservation and sustainability measures in the remaining fishing zones for the seamount fishery, including a ban on bottom trawling designed to protect vulnerable marine ecosystems such as deep-sea coral reefs.

This designation made Tristan responsible for the largest no-take area in the Atlantic. The Blue Belt Programme worked with the RSPB, the British Antarctic Survey and the University of Plymouth in assisting Tristan on their journey towards this landmark decision, which will protect a wealth of wildlife, including sevengill sharks, rockhopper penguins and the endemic Tristan albatross.

Tristan da Cunha's MPZ covers around 700,000 sq km

"This year we on Tristan da Cunha were delighted to designate one of the world's largest Marine Protection Zones, supported by the Blue Belt Programme. If we as an island of 250 people can do this, then I hope politicians around the world will sit up and take note."

James Glass, Chief Islander
Tristan da Cunha

To underpin the new marine protection strategy, the programme also supported Tristan da Cunha Government to produce a suite of draft management documents, including marine management, seamount management and operational plans. These will ensure effective management, monitoring and evaluation of the new MPZ and remaining fishing zones.

Managing and understanding the impact of human activities has been a key part of work around Tristan this year.

- October 2020 brought news of the sinking of MFV Geo Searcher (lobster fishing vessel) off Gough Island. Fortunately, all crew escaped unharmed. Given the vulnerable species nearby and the importance of the lobster fishery to the local economy, a rapid risk assessment was conducted by the Blue Belt Programme into threats posed by the wreck.
- An oil spill detection system has been sent to Tristan, which will act as an early warning system for the community in tracking and responding more effectively to oil spill events and to adjust fishing effort as needed.

MFV Geo Searcher

Rockhopper penguins, Tristan da Cunha

The Blue Belt Programme supported Tristan to designate two Areas to be Avoided (ATBA) within its EEZ to reduce the risk of shipping accidents and pollution events.

- With assistance from the Blue Belt Programme, Tristan da Cunha Government has now developed a comprehensive monitoring and reporting system to track activity within the ATBAs.
- Work has also been undertaken to develop Virtual Aids to Navigation. This technology acts as an early warning system that will help alert transiting vessels to hazards and ATBAs, improving compliance.

Summary of all Activity 2020/21

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

Understanding and protecting biodiversity

Strengthening governance

Managing human impacts

Sustainable fisheries management

Supporting compliance and enforcement

Pitcairn Islands

- New MPA Officer role funded to ensure effective management of the MPA. Blue Belt Programme is providing training and support to the officer.
- Seabed habitat maps created around the Pitcairn Islands to inform management of how boats anchor, ensuring sensitive corals are not damaged.
- New visitor interpretation board was developed, detailing the different marine species visitors might see, such as humpback whales.
- Detailed how climate change might impact the coral reefs of the Pitcairn Island, and strategies for mitigation.

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Tristan da Cunha

- Tristan's new marine protection strategy was announced, closing over 90% of its waters to fishing and other extractive activities.
- Assessment conducted on wreck of MFV Geo Searcher, which sank off Gough Island, to identify risk of oil pollution and impact on rare species.
- Comprehensive monitoring and reporting system developed to track shipping and human activity within the newly designated Areas to be Avoided.
- First stock assessment of bluenose warehou in the Atlantic carried out. Findings will inform conservation measures for vulnerable species around Tristan.

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British Antarctic Territory

- Supported work to underpin international negotiations relating to the management of the krill fishery. The Blue Belt Programme used its expertise in fisheries management analysis, simulation and advice.
- Continued to support the monitoring of waters around BAT for unlawful activity, using both aerial and satellite surveillance techniques.

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Ascension Island

- Ascension Island's new MPA management plan was approved, designed to conserve key marine life, and sustainably manage ongoing activities.
- Trialled new satellite technology to help monitor possible illegal fishing activity and improve surveillance coverage of Ascension's MPA.
- Impacts of climate change on the distribution of commercially important tuna in waters of Ascension Island were modelled.
- Funded key roles within the Ascension Island Fisheries and Conservation Department, to support with the management and implementation of the MPA.

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St Helena

- Assisted in development of new policies for marine tourism and marine development within St Helena's MPA, ensuring human activities are managed effectively.
- Continued to fund a number of roles for St Helena to help implement new policies and build local capability.
- Island's first inshore habitat maps generated to identify key areas for valuable and vulnerable marine species.
- Celebrated Marine Awareness Week and Blue Belt-themed activity booklets were provided for school children on the island.
- Logbooks introduced by St Helena Government within fishery to better monitor the fishing effort and catch.

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Cross-territory

- Compliance and enforcement strategies implemented across all Overseas Territories, including assistance from the Blue Belt Intelligence and Surveillance hub.
- Fully autonomous drone being developed with Virginia Tech University. Self-reliant and able to persistently monitor large areas of remote marine environment for unlawful activity.
- Assisted Atlantic Overseas Territories with ICCAT obligations, including scientific and compliance and enforcement data reporting.
- Deployment of extensive underwater camera network across ten Overseas Territories to monitor marine environments, leading to more informed management.
- Funded legal support in the Attorney General's Chambers to draft new marine-management legislation within St Helena, Ascension Island and Tristan da Cunha.

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South Georgia & the South Sandwich Islands

- Compliance and Enforcement Framework for SGSSI further developed to strengthen the territory's role in managing and monitoring their marine environment.
- Passive acoustic device trialled within SGSSI waters, to potentially track mechanical vessel sounds to tackle IUU fishing.
- RRS Discovery Expedition data used to develop models that predict and map areas around the islands containing vulnerable species, informing management measures.
- Funded underwater cameras that have been deployed on over 500 fishing longline sets to monitor fishing operations and deep-water biodiversity.
- Potential impacts of the megaberg A-68 on local ecosystems assessed through funded oceanographic gliders and underwater temperature and depth sensors.

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British Indian Ocean Territory

- Active surveillance for IUU fishing, including remote analysis of compliance data to inform future operations and improve enforcement.
- Initial training on new SMART technology rolled out. This new tool will help to better monitor, evaluate and adaptively manage enforcement activities.
- Coastal erosion assessed around Diego Garcia using satellite imagery and the latest remote technology, highlighting areas which need further monitoring.
- Detailed how climate change might impact the coral reefs of BIOT, and strategies for mitigation.

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British Indian Ocean Territory

The Blue Belt Programme has continued to work closely with the BIOT Administration to enhance marine protection across the territory's 640,000 square kilometre MPA.

Human activities that take place within BIOT's MPA – such as a busy shipping lane – can impact its marine environment. The programme has assisted in identifying and minimising both local and global human impacts.

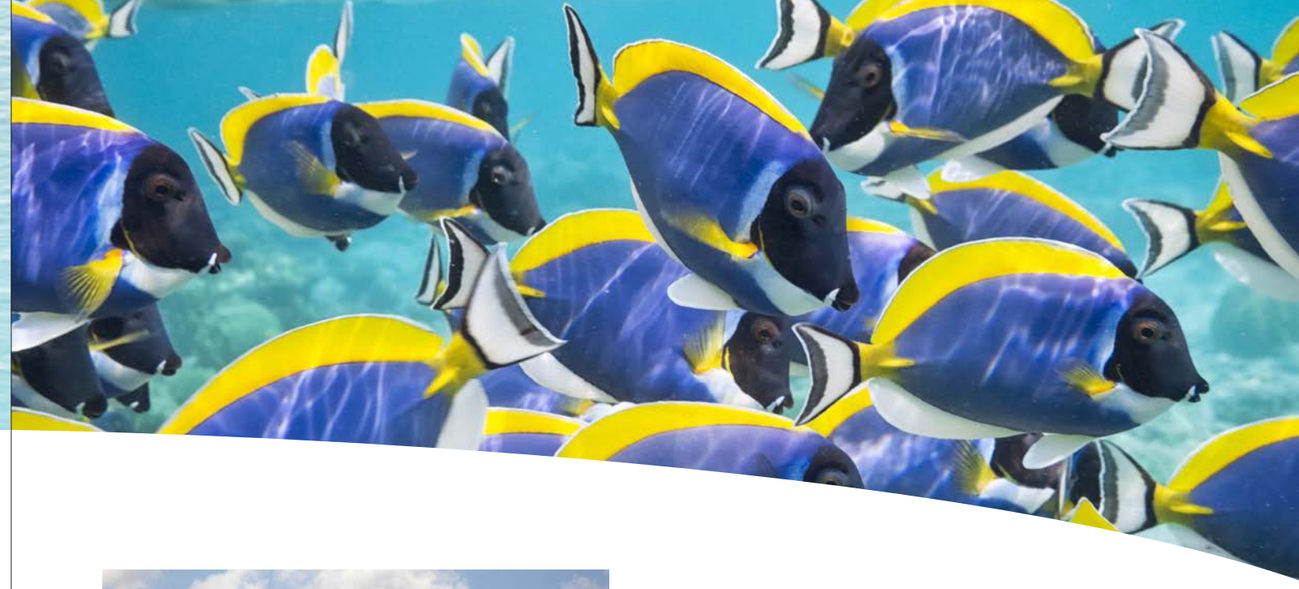
- Changes in water quality have significant impacts on marine environments, particularly coral reefs. The programme assisted the BIOT Administration in the development of their monitoring strategy and provided new monitoring equipment, assisting them to identify potential problems quickly and ultimately to inform management decisions.
- A new report card was produced on the impacts of climate change on the coral reefs of BIOT. Potential impacts on these reefs were assessed, as well as how the BIOT Administration can work to manage and mitigate them.

Clown fish on coral reefs, BIOT

- The programme undertook an assessment of coastal erosion around Diego Garcia. Using satellite imagery and the latest remote technology, areas that need further monitoring were highlighted.
- Working with the BIOT Administration and UK Hydrographic Office, the programme is currently investigating the potential need for a voluntary Area to be Avoided (ATBA). If created, this would mean nearby vessels are aware of the important coral reefs around BIOT, reducing collision and pollution risks and supporting conservation activities.

"The Blue Belt continues to effectively support the BIOT Administration's ability to protect its waters from the threat of Illegal, Unregulated and Unreported fishing. Training on new monitoring technology and continued threat analysis has improved our capability to identify vessels acting unlawfully."

BIOT Administration



The patrol ship, BIOT

Only low-level recreational fishing is permitted within BIOT's MPA, and the Blue Belt Programme has continued to assist on best management practices and wider compliance.

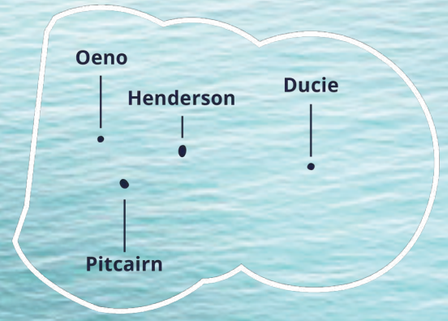
- The programme advised on how to monitor recreational fishing – which is popular around Diego Garcia – to improve understanding of its overall impact.
- The programme continues to assist with surveillance for Illegal, Unregulated and Unreported (IUU) fishing. Remote monitoring and data analysis assists the Senior Fishery Protection Officer to brief the patrol vessel to carry out enforcement and detention of vessels operating illegally.

This work has been supported by the introduction and trialling of cutting-edge technologies for use within BIOT and the other Overseas Territories (see page 21 for more information):

- BIOT staff have been given initial training on a new Spatial Monitoring and Reporting Tool (SMART), a field-based data collection area management system. This technology has begun to be rolled out in BIOT and is designed to better monitor, evaluate and adaptively manage enforcement activities.

The BIOT patrol team at work within the MPA

Pitcairn Islands



The Pitcairn Islands in the South Pacific Ocean have one of the largest EEZs in the world. Made up of four islands, the no-take MPA established in 2016 covers over 840,000 square kilometres and is home to a huge range of marine species and exceptionally preserved coral reefs.

The Blue Belt Programme has supported the Government of the Pitcairn Islands to strengthen the governance underpinning the MPA.

- The programme supported the development of the new Pitcairn Islands MPA Management Plan, setting out clear guidance on the day-to-day management of the MPA. The plan is with the Island Council for approval during 2021.
- The Blue Belt Programme funded a new MPA Officer for the islands to implement the new management plan. The post will ensure effective management of the MPA and the programme is providing training and ongoing support to the officer.

A diver surveying the coral reefs, Pitcairn Islands

Coral reefs, Pitcairn Islands
(Credit: Luke Hosty, Protect Blue)

The programme has worked alongside the Government of Pitcairn Islands to better understand and protect its valuable marine life and coral reefs, as well as to manage the impacts of human activity.

- To better understand the unique shallow waters around Pitcairn Island, the Blue Belt Programme and the Joint Nature Conservation Committee used unique cameras to create new seabed habitat maps for around the island. These maps are used to manage how boats anchor around the island, ensuring sensitive corals are not damaged.

Image credit: Luke Hosty, Protect Blue.

- A new report card was produced on the impacts of climate change on the coral reefs of Pitcairn. Potential impacts on these reefs were assessed, as well as how Pitcairn can work to manage and mitigate them.
- A new visitor interpretation board was developed in collaboration with the RSPB. The board will provide information on the different marine species visitors might see, including humpback whales and rare seabirds.

Green turtle, Pitcairn Islands
(Credit: Luke Hosty, Protect Blue)

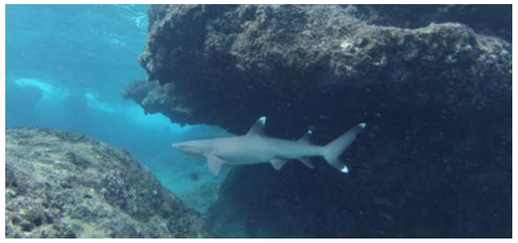
"The Blue Belt Programme continues to be an extremely important piece of work for the Pitcairn Islands. This year we're excited to put in place our new MPA Management Plan, which will bring clear guidance on how to manage and effectively protect our valuable marine environment."

Michele Christian, Government of Pitcairn Islands

Survey vessel off Pitcairn Islands
(Credit: Luke Hosty, Protect Blue)

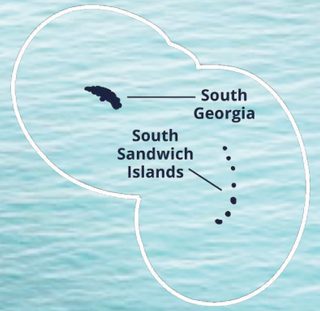
In January 2021, the Blue Belt Programme also started to assist with the surveillance of Pitcairn's MPA.

- This included the analysis and use of satellite imagery provided by OceanMind. Compliance in the MPA has been very high, with no confirmed instances of illegal activity over the last year.



White tipped reef shark, Pitcairn Islands

South Georgia & the South Sandwich Islands



South Georgia & the South Sandwich Islands (SGSSI) is a sub-Antarctic archipelago in the Atlantic sector of the Southern Ocean. The MPA, established in 2012 and enhanced in 2019, covers over 1.2 million square kilometres and is home to exceptional wildlife including vast penguin colonies, elephant seals and migrating whales.

The Blue Belt Programme has continued its work with the SGSSI Government to effectively assist them in protecting their marine environment from unlawful activity.

- The Compliance and Enforcement Framework for SGSSI continues to be developed. When implemented, it will provide clarity and transparency for vessels operating in the EEZ as to how inspections and enforcement action is carried out, helping SGSSI to manage, monitor and protect their marine environment.
- The programme trialled a new passive acoustic device within SGSSI's waters in partnership with the Commonwealth Scientific and Industrial Research Organisation. The device's ability to track mechanical vessel sounds was tested, as this could help tackle unlawful fishing by detecting vessels operating illegally and without their positional systems turned on. Results from the trial will be assessed during 2021.

The biodiversity around SGSSI is rich and hugely varied. The Blue Belt Programme continued to support several long-term projects to develop a better understanding of the deep-sea environment in SGSSI and any potential risks from human activities.

The passive acoustic device being collected off SGSSI (Credit: British Antarctic Survey)

- Data collected during the 2019 RRS Discovery Expedition to SGSSI has been used to develop models that predict and map areas around the islands that are suitable for vulnerable species, ultimately informing management measures.

Deepwater camera units

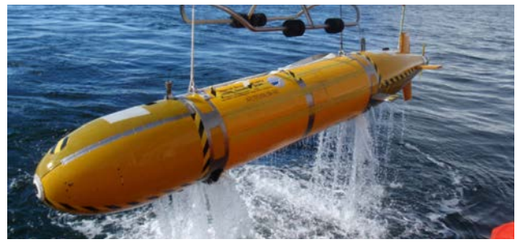
- The Blue Belt Programme funded underwater cameras that have been deployed on over 500 fishing longline sets to monitor fishing operations and their impact. They also provide key information on deep-water biodiversity within SGSSI waters.
- A risk framework that can be used for fisheries management is being developed. This will bring together research and fishery data to assess risks from fishing activities, supporting and informing management decisions.

In late 2020 the mega iceberg A-68 drifted close to South Georgia, with concerns over the impact this may have on local ecosystems:

"The Blue Belt Programme is an integral part of the Government of South Georgia & the South Sandwich Island's evidence-based approach to environmental stewardship. The programme helps us gather key scientific evidence to inform our decision making, as well as contributing to our compliance and enforcement activity. We look forward to ongoing engagement with the programme to support the protection of SGSSI's incredible biodiversity."

Nigel Phillips CBE,
HM Commissioner for SGSSI

- Blue Belt Programme funded temperature and depth sensors, which have been deployed on fishing lines since 2016, are contributing data to inform the assessment of the impact of the megaberg on BAT's marine ecosystem.
- The programme also funded the deployment of underwater oceanographic gliders as part of a British Antarctic Survey led scientific investigation into the impacts of the megaberg.



Oceanographic glider (Credit: British Antarctic Survey)

Elephant seal photographed by deep-water cameras on fishing longline sets

British Antarctic Territory

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

A fishery for Antarctic krill is active during the austral summer in BAT. There is also a small research fishery for the valuable Antarctic toothfish. Both fisheries are managed by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).

Critical CCAMLR regulations, in place for the krill fishery, are due to expire in 2021. In partnership with the British Antarctic Survey, the programme is providing additional scientific support for the renegotiation of these regulations, particularly through the application of data limited methods for fisheries management analysis, simulation and advice.

To ensure compliance and enforcement, the programme has continued monitoring the waters around BAT to prevent unlawful activity, including within the South Orkney Islands Southern Shelf MPA.

Image of BAT taken during RAF surveillance flight (Credit: RAF)

Antarctic krill

- A vessel suspected of IUU fishing was investigated using both satellite and aerial surveillance to ensure it was complying with CCAMLR management measures.
- The Royal Air Force (RAF) carried out a surveillance flight to identify the suspect vessel, providing near real time data on any human activities. Combined with satellite surveillance data, these methods significantly enhance monitoring and enforcement capabilities.

"The Blue Belt programme continues to support our scientific understanding of the region, which will be vital in developing climate-smart management regimes under the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR). Through the development of sophisticated surveillance methods, we are now better able to assess, and deter, the threat of IUU fishing across the Southern Ocean".

Jane Rumble OBE UK Commissioner to CCAMLR and Deputy Commissioner for British Antarctic Territory.

Cross-territory

Image credit: British Antarctic Survey

Many projects within the Blue Belt Programme are relevant to a number or all of the Overseas Territories, and so provide cross-territory outcomes. The programme, in partnership with the territories, collaborates with a number of agencies, non-government organisations and academics to develop and implement its work.

Understanding the biodiversity across the territories is key to being able to effectively protect it:

- The Global Ocean Wildlife Analysis Network was launched. Underwater cameras will be deployed across ten Overseas Territories during 2021 to collect data on marine biodiversity. This data will actively inform future management measures.

Strengthening governance is a core objective of this programme. After a territory designates an MPA, it is then vital they implement regularly reviewed management plans to ensure they are effective.

- The Blue Belt Programme is supporting Overseas Territories colleagues to review Protected Area Management Effectiveness (PAME) tools. These tools allow MPA managers to understand the strengths and weaknesses in their management measures, and ultimately adapt them to make sure they are effective.
- A roundtable event was held with international experts, Overseas Territories staff and partner organisations to discuss management effectiveness, suitability of different tools for each of the territories, and share experiences.
- Within Ascension Island, St Helena and Tristan da Cunha, funding has been provided for legal support from the Attorney General's Chambers to support with the drafting of new legislation, to help enable effective management of their marine areas.
- Sustainable finance is key to ensuring effective MPA management. Funded by the Blue Belt Programme, a scoping exercise for sustainable finance opportunities, exploring future possible funding mechanisms and developing a potential fund and governance structure, was undertaken. Further exploration of financial opportunities and support strategies for UKOTs will be explored in 2021.

Drone trials, BIOT

A silky shark, photographed by camera types used by the Global Ocean Wildlife Analysis Network

Compliance and enforcement is critical in tackling issues such as IUU fishing and ultimately in ensuring effective marine management. This year:

- Compliance and enforcement strategies have been adopted across all the UK Overseas Territories within the programme. The strategies include assistance provided by the Blue Belt Intelligence and Surveillance Hub and address the individual needs of territories to ensure surveillance and any further action is appropriate.
- Routine surveillance using satellite data (with OceanMind and the European Maritime Safety Agency) has been implemented across all territories to ensure their waters are monitored and unlawful activity is detected. More detailed data is used for areas more vulnerable to non-compliance.
- The programme has developed training programmes to build long-term compliance and enforcement capability across the territories. Training materials cover a range of subject matters and include videos and e-learning modules.
- Assistance continues to be provided to the Atlantic Overseas Territories to fulfill their International Commission for the Conservation of Atlantic Tuna (ICCAT) obligations. This includes support with scientific and compliance data reporting, as well as assistance with the implementation of ICCAT measures within domestic legislation.

Across the territories the programme has continued using cutting edge technology and innovation. This includes use of the new NovaSAR satellite data and passive acoustic devices to monitor possible unlawful activity, as well as the development of drone technology:

- Following previous drone trials in BIOT in 2018-2020, the programme (with Loughborough University) is redeveloping the drone to expand the range of patrol vessels monitoring the MPA. Work is ongoing to enhance capability (range, flight duration etc.), and a roadmap has been produced to optimise operational performance.
- A fully autonomous drone is also in development with Virginia Tech University. This innovative and self-reliant drone will perform persistent monitoring on large remote areas. Able to land, take off and charge autonomously, human operators will be able to direct the drone from thousands of miles away. Still at a low-level of technological readiness, it will be further developed and tested before use across the territories.

Preparing the drone for trials

Future Ambition

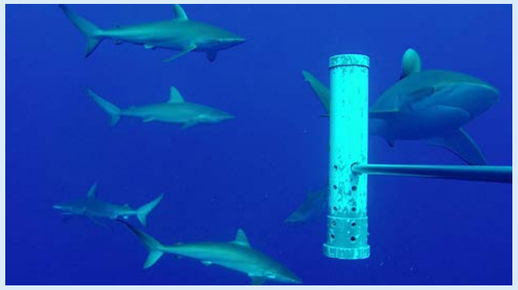
Yellownosed Albatross, Tristan da Cunha

During 2020–2021, the Blue Belt Programme met its milestone target of protecting and enhancing over 4 million square kilometres of marine environment across the UK Overseas Territories.

The programme is central to the UK Government's ambition of tackling some of the serious global threats to our seas – from illegal fishing to climate change – and is driven by a recognition that a step change is needed if we are to preserve unique species and habitats for future generations.

One year into the UN Decade of Ocean Science (UNDOS), 2021 marks a 'super year' for the world's oceans with the G7 summit hosted in the UK, the Convention on Biological Diversity (COP15) and a year of climate action in the run up to the United Nations Framework Convention on Climate Change (COP26).

The continuation of the Blue Belt Programme for 2021-2022 reflects the UK Government's commitment to safeguarding global biodiversity. The programme will contribute significantly to the UK's global leadership of ocean protection, and demonstrate that small, remote islands can play a major role in achieving global change.



Silky and Galapagos Sharks, Ascension Island

Over the next year, the Blue Belt Programme, funded by the FCDO, will continue to work in partnership with UK Overseas Territories and external stakeholders to:

- **Support implementation and review of management plans, as well as ongoing monitoring, compliance and enforcement to ensure that these unique marine environments will be conserved and sustainably managed into the future.**
- **Build understanding of the biodiversity across the programme. A survey expedition is planned to voyage between St Helena and Ascension Island in 2021, which will provide an opportunity to survey the offshore environments and look at connectivity between two large scale MPAs at a regional level.**
- **Gather evidence to demonstrate the effectiveness and benefits of the current marine protected areas and comprehensive management regimes for local communities and globally.**
- **Further build capacity and skills in the Overseas Territories to ensure long-term programme legacy by supporting infrastructure, training, in-country roles and education.**
- **Across the 'super year' for the oceans, demonstrate the role of the programme in combatting major threats to the oceans, such as climate change and overfishing.**
- **Provide support for other UKOTs wishing to join the programme and enhance the protection and management of activities within their marine environments.**

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: facebook.com/ukgovBlueBelt

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