

# Blue Belt Overseas Territory Work Plan: Pitcairn Islands

## Extended Overseas Territory Plan

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Marine  
Management  
Organisation



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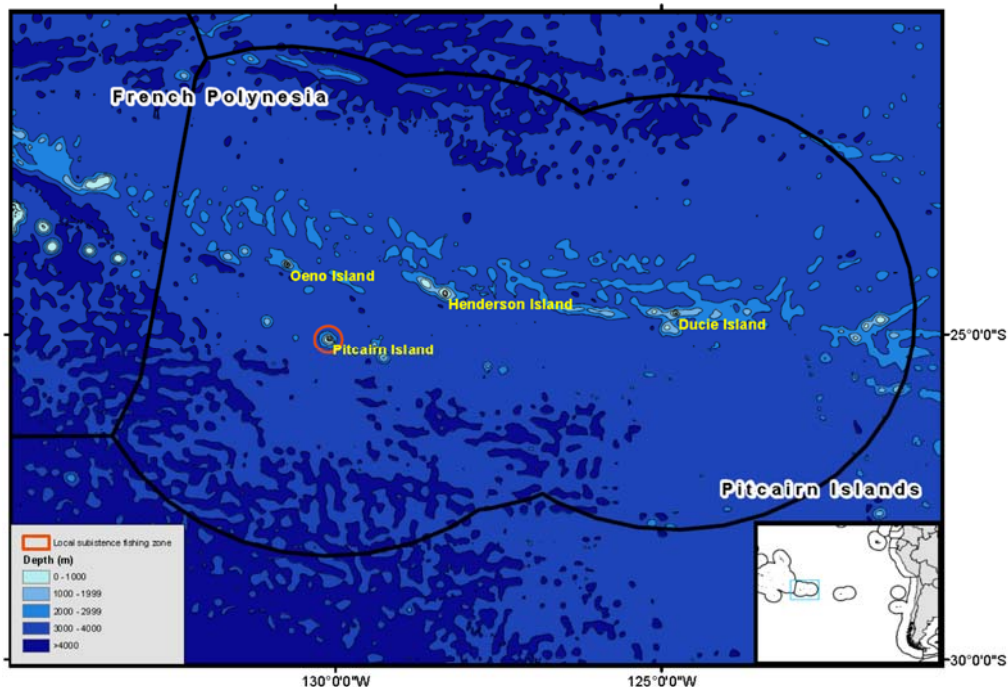
Acronym	Full
<b>CEFAS</b>	Centre for Environment, Fisheries and Aquaculture Science
<b>COSSH</b>	Control of Substances Hazardous to Health
<b>CSSF</b>	Conflict Stability and Security Fund
<b>D+</b>	Darwin Plus
<b>EEZ</b>	Exclusive Economic Zone
<b>EFZ</b>	Exclusive Fishing Zone
<b>FCO</b>	Foreign and Commonwealth Office
<b>FY</b>	Financial Year
<b>IUU</b>	Illegal, Unreported and Unregulated (fishing)
<b>MMO</b>	Marine Management Organisation
<b>MMP</b>	Marine Management Plan
<b>MPA</b>	Marine Protected Area
<b>PCN</b>	Pitcairn Islands
<b>RFMO</b>	Regional Fisheries Management Organisation
<b>TBD</b>	To Be Determined
<b>UKHO</b>	United Kingdom Hydrographic Office
<b>UKOT</b>	United Kingdom Overseas Territory

# Introduction

## Background information

The Pitcairn Islands are an archipelago of four small volcanic and coral islands in the remote South Pacific (Pitcairn, Oeno, Henderson, and Ducie Islands). Only the second largest island, Pitcairn, is inhabited, with approximately 45-50 permanent residents. There is no permanent consular presence and the Territory is administered remotely by the FCO in London and the British High Commission in New Zealand.

The four islands total a land area of ~47 km<sup>2</sup> along the Foundation Seamounts chain running WNW-ESE through the central south Pacific. The Exclusive Economic Zone (EEZ) covers an area of ~834,000 km<sup>2</sup>, largely comprised of abyssal depth waters (>3,000 m), except for the narrow chain of Foundation Seamounts, most of which do not reach the surface.



The EEZ from 12 to 200 nautical miles offshore was declared an International Union for Conservation of Nature (IUCN) Category I fully protected, no-take marine reserve (MPA) in September 2016 following an announcement in April 2015.

The objective of the Blue Belt initiative is to enhance the protection of the marine environment across the UK's Overseas Territories (UKOTs). The project stems from the UK Government's commitment to 'create a Blue Belt around the UK's 14 Overseas Territories, subject to local support and environmental need', with a goal to protect over 4 million km<sup>2</sup> of ocean by 2020.

## Biodiversity

The biodiversity around the four islands which make up the Pitcairn Islands is very high. The area is considered to be one of the least impacted in the Pacific. Pitcairn is a volcanic island and Henderson Island is formed from a raised coral reef. Both Oeno and Ducie islands are low coral atolls. The reefs around Pitcairn and the surrounding islands are considered highly pristine. Developed corals are present around all four islands, with Ducie having the highest coral cover. Due to the islands remoteness there are significant gaps in our knowledge of the islands marine ecosystems and the status of the marine community.

## Fisheries

The islanders' historic subsistence fishing rights (<12 nm from Pitcairn Island) have been conserved since the designation of the MPA. However, Pitcairn islanders have very limited fishing capacity (mostly within 5 nm of the coast), owing to the small population and the lack of powered vessels available locally. Most local fishing is subsistence, although islanders do sometimes trade with passing cruise ships and may sell catches, particularly lobster, and sharks teeth souvenirs.

Prior to MPA designation, the low primary productivity of the Pitcairn EEZ and its remoteness meant that in most cases, commercial fishing was not economically viable. In the past two decades, albacore and bigeye tuna have been the main component of commercial landings while seasonally, swordfish landings may also have been important. Most landings originated from the north and east of the EEZ, between October and January.

There is no local fisheries monitoring, patrol, or enforcement. Pitcairn will be monitored by satellite surveillance by external providers and AIS monitoring conducted by NMIC.

## Other Activities in the marine environment

The Pitcairn Islands, and Henderson Island in particular, has a very high density of fishing-related plastic waste on the shore. Tourism is very limited, largely owing to its remoteness of the islands. Islanders do a limited trade in souvenirs and food with passing cruise ships but there is no capacity for such vessels to dock with the island and passengers are landed by small boats. There is concern that local reefs may be being damaged by cruise ship anchors.

## Local capacity

The Territory has a Director of Natural Resources but, given the small population, there is very limited capacity for monitoring and management of the marine environment.

## Current status (linked to FCO Mandate)

**Design:** The MPA was declared from 12-200 nm in 2016 with no specific science-based design;

**Designation:** The EEZ from 12 to 200 nm off shore is a designated an IUCN Category 1 (No-take) marine protected area;

**Management:** There is limited management beyond the MPA designation, an Inshore Fisheries Management Plan has been drafted and is awaiting approval;

**Monitored:** No local capacity for monitoring;

**Enforced:** No patrol vessel or enforcement capacity.

## Desired Outcome for 2020

Pitcairn has a marine environment that is managed to the highest international standards, with effectively regulated marine activities underpinned by robust science.

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## Pitcairn Work Programme

This work programme has been planned to help Pitcairn develop, implement and enforce marine protection strategies within the MPA, as part of the Blue Belt Programme. Proposed deliverables have been planned to meet Pitcairn's needs and comply with the objectives that underpin the Blue Belt mandate. All work proposed as part of this plan is discussed and agreed with the Pitcairn Government. Quarterly update meetings will be held with the Pitcairn Government, Administrators, MMO and Cefas to discuss issues, progress and changes to the work programme.

### Workstream 1: Legislation, policy and strategy

Activity: Advice on, and support for, the development of legislation, management strategies and policies

Pitcairn have made a commitment to establishing a regime for marine protection around the waters of their EEZ by 2020. Although they have designated an IUCN Category I (No-take) Marine Protected Area (MPA), not all the requisite legislation is in place. The following deliverables and activities are planned to support the development of legislation, management strategies and policies (Table 1).

Table1. Planned tasks for Pitcairn legislation, policy and strategy workstream.

Outcome	Activity	ID	Tasks	Description	Deliverables / Outputs	Mandate Objectives	When	Who
<b>LEGISLATION, POLICY AND STRATEGY</b>								
<b>Laws and policies to underpin designation and management.</b>	Advice on, and support for, the development of legislation, management strategies and policies.	PCN 1.1	Review other marine legislation and provide advice/support with updating legislation	New Marine Conservation Regulations are currently being drafted by the Attorney General and support and advice will be provided if required. Other legislation and policies relevant to the marine environment will be reviewed and advice provided as necessary to help develop a modern suite of legislation for management of the marine environment.	1. Advice provided on Marine Conservation Regulations (if required)  2. Updated legislation (where relevant)  3. Review of other legislation and policies	Designation Management	Mid-2018  End of 2018  2019	<b>MMO,</b> Cefas



Outcome	Activity	ID	Tasks	Description	Deliverables / Outputs	Mandate Objectives	When	Who
		PCN 1.2	Marine Management Plan	Continue the work of the Darwin+ project (20-006) and help advise on the creation of a Marine Management Plan to guide management of the MPA. This would include an evaluation of existing information, workshops with the local community and key stakeholders, drafting the plan and public consultation	1. Review and evaluation of existing information.  2. Stakeholder workshops to define vision, objectives and actions  3. Draft Marine Management Plan  4. Formal consultation  5. Final Marine Management Plan (following public consultation)		Sep 2018  Sept-Dec 2018  Dec 2018 - Apr 2019  Apr 2019 - Sep 2019  Sep – Dec 2019	MMO Cefas, PCN,
		N/A	Ad hoc support and advice	Ongoing support and advice provided on legislation, policy and strategy.	-		Ongoing	MMO, Cefas

## Workstream 2: Assessment and management of Resources and Human Activities

Activity: Determine sustainable harvests for fisheries (lobster and reef fish) and advise on sustainable fisheries strategies and management plans

Although no commercial fisheries exist on the Island there is a strong tradition of subsistence fishing with the majority of households have a fish based meal 2 to 3 times a week. The three principal fisheries in Pitcairn are:

1. An **inshore fishery**– which uses handlines to fish from the rocky shore or from using handlines or rod and lines from small vessels which are able to access nearby rock shores or reefs or trolling for pelagic species such as tuna and wahoo.
2. An **inshore shark fishery** – past records indicate a small shark fishery around the island, including for grey reef sharks and whitetip reef sharks. In the past couple of years this has reduced to minimal numbers, and the local community are supportive of a ban under the Inshore Fisheries Management Plan
3. An **inshore fishery for spiny lobster and slipper lobster** – which uses pots, traps and scuba/free diving to harvest lobster. Although not widely eaten on the island Lobsters are caught and sold to the occasional visiting cruise ship.

Some previous work has been carried out on estimating the total fisheries impact however further investigations would provide a long-term legacy for the Pitcairn community (Tasks PCN 2.1 – 2.4, Table 2).

Activity: Assess current and future threats and advise on management strategies

Pitcairn has a fairly low number of anthropogenic activities occurring in its maritime zone. These include, recreational fishing and marine tourism (currently only whale watching). The remoteness of the islands makes them appealing for 'Adventure Cruises'. Per year, 8 to 10 cruise ships visit the islands anchoring in the near shore areas of the island. Currently the visiting vessels are anchoring in "safe spots". However, there is currently very little knowledge of what lies beneath the vessels. The impact the ships may be having on the marine environment, in particular the benthic habitats, is currently not well understood. There are currently no management measures for tourism or marine recreation activities within the MPA and work is needed to assess their impacts and management needs. Consultation with the Pitcairn Government has highlighted a specific need for support with developing guidelines and codes of conduct for whale watching and for other new marine tourism activities as they are developed to ensure that they are compatible with the principles of the MPA. Deliverables 2.5 – 2.6 (Table 2) will assess the impacts of marine tourism (whale watching activities) and the cruise ship activity on the marine environment, recommend appropriate mitigation (where needed) and support adoption (or review) of their licensing and regulation.

Recently plastics have been identified as a serious threat to the 'pristine' environment of the Pitcairn Islands. The islands sit on the edge of the Southern Pacific Gyre. Litter entering the Southern Pacific from the surrounding land masses circulates around the gyre. Large quantities of litter, predominantly plastic, is washed up onto the beaches on the islands and once there acts as a serious environmental hazard to marine and terrestrial life. Highlighting the scale and range of ocean debris impacts in the Pacific may

help to advocate for solutions at an international scale; on a more practical local level, the Pitcairn Government has requested advice on how the community can manage this debris and deal with its removal in a sustainable way in the longer-term.

The OTs are vulnerable to the introduction of potentially harmful invasive non-native species, because these threaten island biodiversity, food security and sustainable development. Pressures are increasing with the continual growth of international trade, the main driver of the spread of invasive species, which results in higher numbers of individuals of more species being moved around the world, both deliberately and accidentally. The chance of a new potentially harmful species arriving and establishing in Pitcairn is therefore, greater (See Cross-Cutting Work plan for more detail).

Table 2. Planned tasks for Pitcairn *Assessment and management of Resources and Human Activities* workstream.

Outcome	Activity	ID	Tasks	Description	Deliverables / Outputs	Mandate Objectives	When	Who
<b>ASSESSMENT AND MANAGEMENT OF RESOURCES AND HUMAN ACTIVITIES</b>								
<b>Sustainable fisheries management plans in place</b>	Determine sustainable harvests for fisheries and advice on sustainable fisheries strategies and management plans.	PCN 2.1	Fisheries Profile	Description of Pitcairn fisheries, including a review of species, catches, governance, management and IUU fishing. Identifies gaps in knowledge.	1. Report	Design Management	June 2018	Cefas
		PCN 2.2	Lobster stock assessment	Analysis of video data combined with the baseline habitat map to describe the population of lobsters within the inshore areas. Monitor whether the proposed restrictions in the Inshore Fisheries Management Plan are being effective and to inform a revision of the Plan if necessary	1. Fieldwork / survey 2. Report	Monitoring Management	Dec 2018 Sep 2019	Cefas, PCN

Outcome	Activity	ID	Tasks	Description	Deliverables / Outputs	Mandate Objectives	When	Who
		PCN 2.3	Assessment and monitoring of reef shark species	Although the shark fishery is likely to be closed soon it is important to try to understand the impact of past fishing effort and monitor the population after the ban has come in to determine its effectiveness and inform the compliance and enforcement strategy.	1. Plan 2. Data collection 3. Analysis and write-up	Monitoring Management Enforcement	May 2018 Sep 2018 and Sep 2019 Dec 2019	Cefas, PCN
		PCN 2.4	Assessment of offshore species – Tuna	A small amount of yellow fin and skipjack tuna is caught by the islanders each year. With the MPA now closed to commercial fishing it is important to understand the population of the migrating stocks across the territory. Tagging of tuna stocks (skipjack, yellowfin) around the waters of Pitcairn may also help to identify whether the level of risk of IUU fishing and will inform the compliance and enforcement strategy.	1. Plan/proposal 2. Data collection and tagging 3. Progress report 4. Final report	Monitoring Management Enforcement	July 2018 Sep 2018 - Sep 2019 June 2018 Dec 2019	Cefas, ZSL

Outcome	Activity	ID	Tasks	Description	Deliverables / Outputs	Mandate Objectives	When	Who
<b>Management strategies in place for relevant activities</b>	Assessment of the threats to the marine environment of tourism and other human activities and development of mitigation strategies.	PCN 2.5	Assessment of risk (marine tourism) and mitigation strategy	Initially, support will be provided to the Pitcairn Government to develop guidelines and codes of conduct for whale watching activities and promote this amongst the local community and visitors to the island to prevent impacts to the humpback whale population. If other new tourism activities are developed (eg SCUBA diving) then guidance on permitting for these activities will also be provided as required.	1. Short review and advice on management best practise. Review existing legislation and guidelines for whale watching in other countries  2. Develop code of conduct for whale watching in Pitcairn  3. Work with Pitcairn Government to promote use of the code of conduct	Management	June 2018  August 2018  September 2018	MMO, Cefas
		PCN 2.6	Undertake a bathymetric assessment of the anchorages around Pitcairn Island	The anchorages around Pitcairn are currently poorly mapped. With the number of cruise ships arriving each year and the potential for an increase in the number of visiting yachts it is important in terms of Safety at Sea and resource management that the anchorages are well mapped. Mapping will be undertaken provisionally through remote sensing followed by ship based sonar survey.	1. Fieldwork / survey  2. Processing and mapping of data  3. Advice on zoning for anchorages	Design Management Monitoring Enforcement	Dec 2018  Mar -July 2019  Aug 2019	Cefas, PCN, UKHO, MMO

Outcome	Activity	ID	Tasks	Description	Deliverables / Outputs	Mandate Objectives	When	Who
		PCN 2.7	Assessment of the plastics on Henderson Island	Assessment of the quantity, origin and accumulation rates of litter on Henderson Island. Based on the results of the study a feasibility study considering options for removing marine litter in the longer-term could be developed (e.g. supporting the local community to gain economic benefit from the debris).	1. Fieldwork / survey  2. Processing of samples.  3. Development of a feasibility study for removal of the litter in the longer-term (where appropriate)		Dec 2018  Jan – Mar 2019  May - July 2019	Cefas, PCN, Pew Trust, MMO
		N/A	Ad-hoc support and advice	Ongoing support and advice provided as necessary.	-	-		Cefas, MMO
<b>Marine protection strategies implemented.</b>	As requested.							

## Workstream 3: Marine Environment and biodiversity.

Activity: Develop an understanding of the biodiversity of marine environment.

There is limited information available on the biodiversity of the Pitcairn marine environment, particularly offshore species and habitats. Additional studies (Table 3) have been identified to supplement existing knowledge of both the marine environment and human activities that occur there. This information will support MPA management (of the threats to native habitats and species), whilst also providing a baseline from which to monitor in future. The proposed work will draw on both existing and newly collected data.

Table 3. Planned tasks for Pitcairn *Marine Environment and biodiversity* workstream.

Outcome	Activity	ID	Tasks	Description	Deliverables / Outputs	Mandate Objectives	When	Who
<b>MARINE ENVIRONMENT AND BIODIVERSITY</b>								
<b>Species and habitat management plans in place</b>	Develop an understanding of the biodiversity of marine environment.	PCN 3.1	Environment Profile	Background review or 'characterisation' of Pitcairn's environment and biodiversity. Detailed review / collation of bathymetric, environmental and biodiversity data.	1. Report	Design Management Monitoring	Sep 2018	Cefas
		PCN 3.2	Seabed habitat mapping	Undertake video and acoustic data collection in support of creating a habitat map of the inshore (<15m deep) regions around Pitcairn. This will utilise the bathymetry maps created either using sonar or earth observation	1. Fieldwork / survey 2. Interim report 3. Final map and report	Design Management Monitoring	Dec 2018  Apr - Aug 2019  Dec 2019	Cefas, PCN
		PCN 3.4	Habitat and Species monitoring	Develop a long-term monitoring programme for assessment of key species and habitats by members of the local community	1. Environmental Monitoring plan	Monitoring Management	Q3 2019	Cefas, PCN

## Workstream 4: Capacity Building and Local Engagement

Activity: Training, capacity building, facilities and local engagement

Capacity building and provision of support to PCN staff is an integral part of the delivery of the Blue Belt objectives and essential for the long-term legacy of the programme. Training will be provided (where necessary).

Table 4. Planned tasks for Pitcairn *Capacity Building and Local Engagement* workstream.

Outcome	Activity	ID	Tasks	Description	Deliverables / Outputs	Mandate Objectives	When	Who
<b>CAPACITY BUILDING AND LOCAL ENGAGEMENT</b>								
<b>Pitcairn has facilities and expertise required to deliver long-term management</b>	Training, capacity building, facilities and local engagement.	PCN 4.1	Ongoing training as required. Specific requests for training in the following areas have been received: <ol style="list-style-type: none"> <li>1. Marine ecological training: basic marine ecology, species identification, breeding cycles of relevant Pitcairn marine species and seasonal populations in zones for monitoring purposes.</li> <li>2. Fisheries training: Exploring different fish catch log methods</li> <li>3. Training in marine management principles.</li> <li>4. Training in Litter sampling and recording</li> </ol>	Training will form the majority of planned activities and will be reviewed throughout the lifetime of the project. Specific training sessions will be held during visits by Blue Belt staff to the island or on-line where appropriate. Online and other training methods will be utilised where practical.	1. Marine ecology training manual produced and training delivered	All	Dec 2018 & March 2019	<b>Cefas, MMO</b>
					2. Marine fisheries training manual produced and training delivered		Dec 2018	<b>Cefas, MMO</b>
					3. Marine management principles training manual produced and training delivered		August 2018	<b>MMO</b>
					4. Litter sampling Manual delivered and training provided		Dec 2018	<b>Cefas</b>



## Key Milestones and Deliverables

There are a number of key milestones that will indicate success of the Blue Belt programme in supporting Pitcairn to achieve its desired outcome by 2020. Identified milestones are listed in no particular order, but reflect the desired outcomes identified for Pitcairn and the outputs that contribute towards delivery of those outcomes. Milestones can be, therefore, be achieved through a culmination of work carried out across the Blue Belt programme (and described in the: 1) Pitcairn; 2) Cross-Territory; and 3) RFMO Work Plans).

Identified Blue Belt milestones for Pitcairn include:

1. Finalised Marine Management Plan published (Dec 2019);
2. Requisite legislation is in place for MPA Management (Mar 2020);
3. Baseline data for key species and habitats in place (Dec 2019)
4. Implementation and Monitoring Plans in place (Dec 2019).

Key milestones are supported by the following key deliverables

5. Key reports to enhance understanding of biodiversity of the marine environment;
  - a. Habitat assessment and mapping (Aug 2019)
  - b. Lobster Stock Assessment (Aug 2019)
6. Code of conduct for whale watching;
7. Recommendations for management of other new marine recreation activities as required
8. Bathymetric maps for nearshore (<15 m depth) areas around Pitcairn (July 2019)
9. A feasibility study into a zoning plan for ship anchorages (Aug 2019)
10. A feasibility study for the local community to remove and reuse the marine litter in the longer-term (Dec 2019)

Cross territory deliverables relevant to the designation and management of the Pitcairn MPA

1. Compliance and enforcement process and procedures developed
2. The development and implementation of emergency response procedures
3. A review and assessment of biosecurity procedures in relation to invasive species