

Darwin Initiative Final Report

*To be completed with reference to the Reporting Guidance Notes for Project Leaders (<http://darwin.defra.gov.uk/resources/>) it is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)*

Darwin project information

Project reference	20-006
Project title	A sustainable marine and fisheries management plan for the Pitcairn islands
Host country(ies)	Pitcairn Islands
Contract holder institution	King's College London
Partner institution(s)	University of Dundee, Natural Resources Division - Government of Pitcairn Island, Zoological Society of London (ZSL), Secretariat of the Pacific Community (SPC), Sea-Scope Marine Environmental Consultants.
Darwin grant value	£249,946
Start/end dates of project	September 2013 – March 2017 (no-cost extension awarded)
Project leader's name	Professor Terence Peter Dawson
Project websites/blog/Twitter	1. http://www.pitcairnenvironment.org.pn/ 2. http://www.zsl.org/regions/uk-and-overseas-territories/pitcairn-islands-marine-conservation 3. http://www.marinereservescoalition.org/resources/blog/
Report author(s) and date	Terry Dawson, Heather Koldewey, Robert Irving, Michele Christian, June 2017.

1 Project Rationale

Given their extremely isolated location and difficulties of access, the Pitcairn Islands' marine habitats are one of the UKOTs least known ecosystems (Figure 1). Scientific evidence for fisheries management of Pitcairn's Exclusive Economic Zone (EEZ) remains insufficient for decision-making, as highlighted by the PEMP report (Smyth, 2009) and confirmed by our Challenge Fund report (2012). Global fishing pressures on migratory species, especially tuna and billfish, had, since the turn of the century, resulted in commercial fishing fleets increasingly approaching the Pitcairn Government to lease their fishing rights. Further, the Secretariat of the Pacific Community (SPC) proposed that the Pitcairn community develop commercial reef fisheries for export to neighbouring Mangareva (Gambier Islands, French Polynesia). The environmental and economic sustainability of such proposals were unknown. Crucially, the small local community relies on fishing for food, and together with tourism, providing income support. In addition, a Pew Charitable Trust / Pitcairn Island Council initiative to create a large marine reserve around the Pitcairn Islands was considered in 2012, which highlighted a number of scientific knowledge gaps that needed to be filled.

The local economy of the Pitcairn Islands is reliant on tourism as a source of income due to their geographic isolation, small size, and small population (given that it is one of the primary mainstays alongside fisheries). The community's income is boosted through the sale of souve-

nirs to cruise ships, landing and accommodation fees charged to visitors and the sale of Pitcairn products such as honey, stamps, postcards, 'signature' clothing/accessories and traditional crafts such as wood carvings. In the recent past, the sale of fish and lobster to cruise ships has also boosted this income from time to time. The number of cruise ships that stop at Pitcairn has increased in recent years and it is expected to continue to rise with the recently (2016) designated very large Marine Protected Area now in place. It is envisaged that the creation of one of the world's largest marine reserve in the Pitcairn Islands will enhance the island's image to potential visitors. It will provide an opportunity for increased awareness of the islands and their unique tourism experience on offer. This opportunity, and the consequent increased number of visitors, represents a realistic opportunity for building a sustainable economic future for the community.

Considering these challenges with socio-political and economic pressures, our project was envisaged to facilitate informed decision-making by the Pitcairn Government for sustainable marine resource use by (1) underpinning the scientific evidence-base; (2) developing local capacity for fisheries and environmental assessments; (3) developing a marine management plan with the Pitcairn community and UK Government for fisheries and the proposed marine reserve; (4) enhancing tourism opportunities; and (5) increasing awareness of Pitcairn's importance in meeting the UK's biodiversity targets. A key development within this project was to work closely with the Pew Charitable Trusts and the Pitcairn Island Council and the UK and Pitcairn Island Governments to support the establishment of a Marine Protected Area, and to provide the underpinning management protocols and scientific evidence-base to ensure a sustainable future for Pitcairn's marine resources.

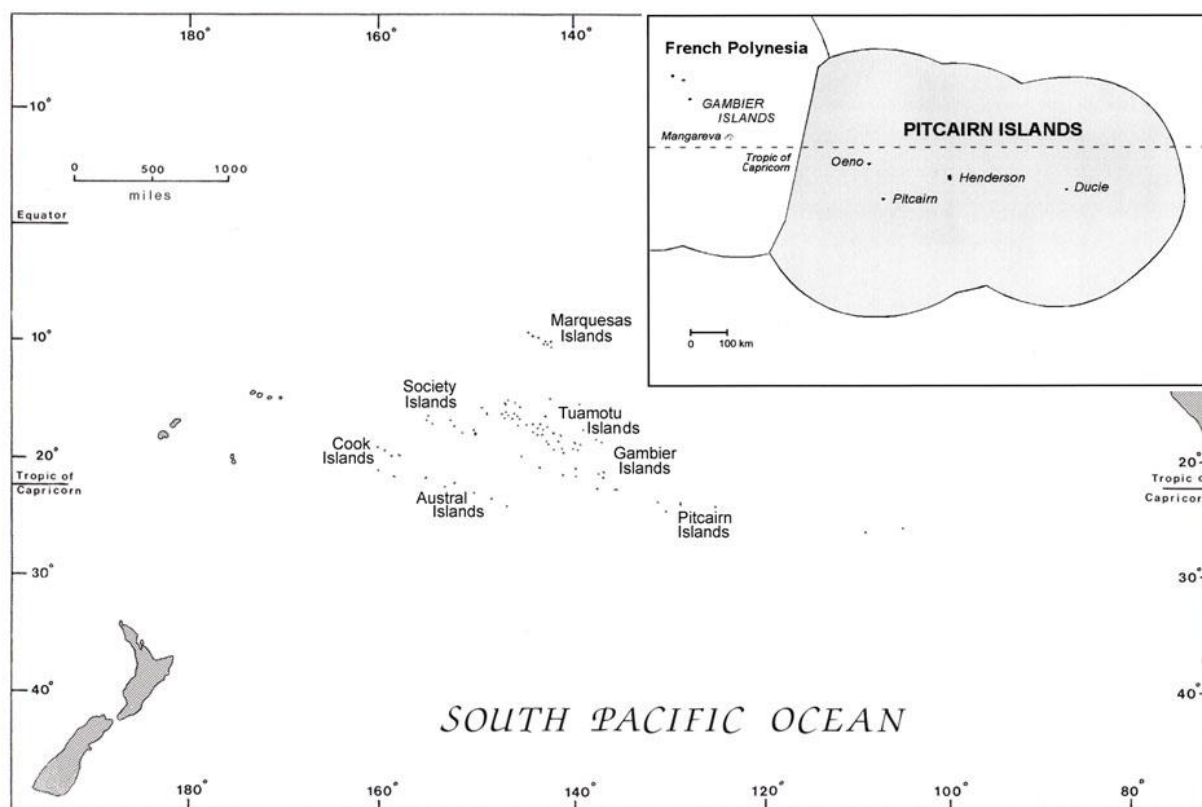


Figure 1. Map showing the location of the Pitcairn Islands within the central South Pacific and (insert) the extent of the EEZ around the islands.

2 Project Partnerships

The project leader, Terry Dawson relocated from the University of Dundee to King's College London in 2016, with a formal transfer of project management on 1st September 2016. Because this transfer occurred during the period of a no-cost extension following the end of the

financial year and completion of the project funding period, the financial management and final audit of project accounts will be undertaken by the University of Dundee.

- The UK based principle partners (Dundee University/King's College London, Sea-Scope, Zoological Society of London) have liaised frequently since the project's inception on 1st September 2013. Meetings have been held via Skype and in person. A MoU is in place between Dundee University and ZSL, and between Dundee University and Sea-Scope.
- Visits and contact with the Pitcairn islander community: Skype/Teleconference meetings have been held regularly with Michele Christian, Head of the Natural Resources Division, Government of Pitcairn Island, through the Pitcairn Environment (Stakeholders) Group (PEG) Meetings. UK partners regularly visited Pitcairn throughout the lifetime of the project (with the last visit in Aug/Sep 2016 by Terry Dawson and Ana Pinto), during which time meetings were held with Michele Christian, the Fisheries Officers (Sue O'Keefe and Charlene Warren-Peu), as well as the Mayor, Shawn Christian. During on-island visits, meetings were also held with the Pitcairn Island Council and with successive British Government (FCO) officials on Pitcairn (Pete Smith, Kevin Lynch, Alan Richmond, Robin Satchel and Nicola Hebb), and the fishing community. Two Pitcairn Islanders (Simon Young & Melva Warren-Evans) visited the UK in October 2013 and December 2014 following an invitation by the Pew Charitable Trusts, and met with members of this project. Michele Christian visited the UK from Mar-Jun 2017 and had regular meetings with the project team and collaborators during her visit.
- Terence Dawson was invited by Jonathan Sinclair, Governor of Pitcairn, to participate in a Pitcairn Islands focus group meeting, Foreign and Commonwealth Office, London, 27 Oct 2015.
- Heather Koldewey and Fiona Llewellyn (Marine Reserves Coalition) were invited to join the Foreign and Commonwealth Office 'Blue Belt Working Group' which has met several times and included discussions on fisheries enforcement in Pitcairn.
- Robert Irving has led on various aspects of field data collection from Pitcairn involving three visits to the island over the duration of the project. He helped establish a fish catch recording scheme (whereby individual fishers report their catches to the project-appointed Fisheries Officer on a monthly basis); helped to supervise the assessment of existing reef fish populations using Baited Remote Underwater Video System (BRUVS), carried out by MSc student Henry Duffy and overseen by Dr Tom Letessier; and initiated a humpback whale sightings recording scheme, undertaken on a voluntary basis by all islanders.
- Other meetings have been held in the UK with project collaborators Dr Tom Appleby, Academic lawyer and Trustee, Blue Marine Foundation and Jo Royle, Pew Charitable Trust, (Aug 2015); with Michelle Crick, Research Associate, Conservation Sans Frontieres (Sep 2015, Mar 2016) to support the legal aspects of the fisheries management plan and MPA ordinance, and with Prof. Meriwether Wilson, University of Edinburgh (Feb 2016).
- There has been on-going correspondence with Michel Blanc and Delphine Leguerrier Sauboua Suraud (SPC, Pacific Community) regarding the Pitcairn fisheries and tourism developments, and integration with the 10th EDF Integre project (co-funding).
- Legislation regarding the fisheries management has depended upon the active collaboration of Danielle Kelly (Pitcairn Government), who, with Dr Tom Appleby (Blue Marine Foundation), has advised on and reviewed the Pitcairn Fisheries Management documentation developed by Michelle Crick (Conservation Sans Frontieres) and Terence Dawson.
- Dr Tom Letessier (ZSL Postdoc researcher) and Henry Duffy (MSc student, Imperial College) have progressed regional collaborations to share biological monitoring data of fish populations in French Polynesia and Tonga with Institut de Reserche pour le Developpement (IRD) and Montpellier University to enable com-parative assessments with the fish populations surveyed in Pitcairn as part of Henry Duffy's MSc project within the Darwin project.
- There has been continuous communication with the Pitcairn Island Tourism (Tourism Assistant/Local Services Manager- Melva Evans, and Tourism Coordinator - Heather

Menzies) regarding tourism-related developments as per the tourism development plans (Tourism visits and activities led by Ana Pinto, ZSL). Since the initial contact with the Pitcairn Islands Tourism Department during visits to Pitcairn Island, when a tourism plan was formulated collaboratively and priorities were established, the collaboration was reinforced during a second visit in 2016. Working closely with the tourism department and community has been essential for achieving the outcomes of the tourism and outreach elements.

- We made a change request to enable a funds transfer between cost categories, which was agreed in March 2015 to enable the project to employ a research assistant (Michelle Crick, Conservation Sans Frontières) to progress the development of the legal framework for fisheries management and the Pitcairn Marine Reserve in collaboration with the Pitcairn Government. Other new collaborators in 2015-2016 included the University of St. Andrews and the MASTS community (provision of whale sound recording equipment, and funding a travel scholarship for Jackie Christian, representative of the Pitcairn Islands Government, to visit Dundee/St. Andrews in 2015 for talks/funding applications); University of Auckland (Professor Andrew Jeffs) where we agreed (Darwin project 20-006 and the Natural Resources Division, Pitcairn Government) to support their significant international research project into the population biology of important commercial lobster species, including the Easter Island Spiny Lobster, one of the two species collected from Pitcairn Island (DNA from caught lobster samples will be extracted for further analyses in the Leigh Marine Laboratory at the University of Auckland). The Darwin project provided sample tubes and fixing alcohol to enable the local collectors to store the samples securely for shipping back to the New Zealand laboratory.
- The roles of the project's partners: Terry Dawson led on the whole project; led on strategic planning, finances, liaison between partners and report writing. Heather Koldewey led on the tourism aspects of the project, ably assisted by Ana Pinto, as well as representation of the project with the Marine Reserves Coalition/Great British Oceans (with Fiona Llewellyn). Robert Irving led on the collection and collation of scientific data from Pitcairn, assisted by Tom Letessier. Michele Christian (Pitcairn) acted as our main on-island contact, helping to set up meetings and providing various permissions. Michel Blanc (SPC) provided input into fisheries discussions and workshops and helped with fisheries advice. All of the principle partners of the project (Terry Dawson – Kings College; Heather Koldewey – ZSL; and Robert Irving – Sea-Scope) contributed to the writing of this report.
- It is very likely that all partners involved with this project will keep in touch following the end of the project. Strong friendships have been made, particularly with many of the Pitcairn Islanders.

3 Project Achievements

3.1 Outputs

Overall, given the ambitious nature of the project, and some of the challenges encountered during its lifetime, we have achieved virtually all of the outputs proposed in the original application (see Annex 1 and 2) with some modifications. The main activities completed during the period from 2013-2017 relating to our objectives (headings from the project proposal) are:

(1) Underpinning the scientific evidence-base

A number of activities have taken place on Pitcairn Island and Henderson. Scientific surveys of the fish communities were undertaken using Baited Remote Underwater Video systems (BRUVs) in 2014 and 2015 (Henderson Island) where new species were identified (Duffy *et al.*, 2017) as well as enabling the assessment of the trophic structures (Letessier *et al.*, in prep).

Monthly fish catch returns by individual fishers on Pitcairn were first obtained in September 2014. A considerable amount of time and effort had gone into persuading fishers to do this: there was considerable suspicion as to our motives and that we would be stopping them fishing. Tack and diplomacy were the order of the day. At first, individual fishers were asked to complete their own logsheets for this purpose, but it was later found that a greater uptake of participants was ensured by having the Fisheries Officer request verbal reports from individuals. These reports were then

transcribed by the Fisheries Officer onto the paper logsheets for each separate fishing 'event', be this detailing the efforts of an individual fishing from the rocks or a group all fishing from one boat.

A full 12 months' worth of data was obtained in this way, from September 2014 until August 2015. This provided us with the basis for assessing overall fishing effort, the total number of fishes/lobsters caught and of which species and the most frequently caught species in any one month. These data were then used to prepare species description sheets (for 4 fish species and 3 lobster species) and provided us with the necessary background information to start drawing up a Fisheries Management Plan. Combining this data with historical records has resulted in a baseline for Pitcairn fish catches from 1950 to 2014 (Coghlan *et al.*, 2017)

Maintaining regular and reliable monthly fish catch records has proved difficult for a number of reasons. These have included: (1) absence of the Fisheries Officer from the island for several months at a time (due to medical reasons); (2) the irregular appointment of a replacement Fisheries Officer during absences (due to lack of availability of a suitable replacement); and (3) lack of enthusiasm of fishers to participate in the return of catch records (this has been countered by encouragement from the Fisheries Officer when on-island, but due to unforeseen absences has led to a fall-off of returns). It cannot be stressed enough how difficult it has been to maintain on-island interest in this project given the small population and the number of unexpected happenings which have impacted on the project.

Humpback whales are regular visitors to Pitcairn between June and November each year. As a means of encouraging all islanders to participate in a citizen science project, a sightings recording scheme was initiated by the Darwin project team. A recording form was devised and distributed to all households on the island. Over 80% of islanders have contributed to this recording project and it has tapped in to a genuine enthusiasm and joy held by the community when whales are sighted. We now have sightings records for the years 2014-2016, as well as additional records from Henderson during 2015 (when the Fisheries Officer was on Henderson with the RSPB). This sightings project has led to the confirmation of both Pitcairn and Henderson being used as birthing and mating grounds by humpback whales, a finding that has been written up and submitted to an appropriate international journal (Irving *et al.*, 2017).

Scientific publications (see also Annex 5)

- Dawson TP. 2015. The UK Government agrees to create the world's largest marine reserve around the Pitcairn Islands, a UK Overseas Territory in the South Pacific. *Pacific Conservation Biology* 21(2), 108-109.
- Irving RA, Dawson TP & Koldewey H. 2015. The Pitcairn Islands – The case for protecting their marine environment. *In: Dawson TP, The UK Government agrees to create the world's largest marine reserve around the Pitcairn Islands, a UK Overseas Territory in the South Pacific. Pacific Conservation Biology*, 21(2), 110-112.
- Irving RA, Dawson TP and Wowor D. 2017. An amphidromic prawn, *Macrobrachium latimanus* (von Martens, 1868) (Decapoda: Palaemonidae), discovered on Pitcairn, a remote island in the southeastern Pacific, *Journal of Crustacean Biology*, JCB-1821, in press.
- Duffy HJ, Letessier TB & Irving, RA. 2017. Significant range extensions for two fish species at Pitcairn Island, South Pacific. *Journal of Fish Biology*, in press.

Scientific publications currently being prepared and/or submitted:

- Coghlan AR, White R, Dawson TP, Irving RA, Zeller D & Palomares ML. 2017. A share of the Bounty: Reconstruction of marine fishery catches for the Pitcairn Islands (1950-2014), *Frontiers in Marine Science*, submitted.
- Irving RA, O'Keefe S, Warren P, Koldewey HJ and Dawson TP. 2017. Confirmation of a new breeding ground for humpback whales (*Megaptera novaeangliae*) in the central South Pacific, *Journal of Cetacean Research and Management*, submitted.
- Letessier T, Duffy H, Juhel J-B, Koldewey H, Dawson TP, Irving RA, Meeuwig J, Wantiez L, Mouillot D & Vigliola L, Fish assemblage, functional characteristics, and trophic structure of the Pitcairn fish assemblage: implications for artisanal and tourist-

driven fisheries management within protected areas. Target journal *Coral Reefs*, submission planned by November 2017, in prep.

- Irving, RA, Letessier, TB, Duffy, HJ, O'Keefe, S, Christian, M, Koldewey, H & Dawson, TP. 2017. A tiny island in a vast sea: marrying local fishery needs and new MPA status within a small community on Pitcairn Island, central South Pacific. Paper submitted for presentation at the 10th Indo-Pacific Fish Conference, Tahiti, October 2017, in prep.

(2) Developing local capacity for fisheries and environmental assessments

Workshops, presentations to a broad-based audience and discussions with key personnel have been held on Pitcairn throughout the duration of the project in 2014 and 2015, mainly relating to training activities on fisheries ecology and management protocols.

A community workshop was held on Pitcairn Island (22-26 May 2016) hosted by Hugh Govan and Caroline Vieux (SPC) through the Integre/Darwin collaboration entitled 'Participatory marine resource management planning' (14 islanders attended). Presentations were made on coastal management plans - experiences from around the Pacific, and training was provided on drafting a coastal fisheries management plan for Pitcairn. This workshop was followed up by Terry Dawson and Ana Pinto, who visited Pitcairn Island in Aug-Sep 2016 (meetings with the Natural Resources Division – Michele Christian and Sue O'Keefe - and discussions with individual fishers).

(3) Developing a marine management plan with the Pitcairn community and UK Government for fisheries and the proposed marine reserve

On 14 September 2016, the UK Foreign Office Minister, Sir Alan Duncan, announced at the 'Our Ocean' Conference in the USA that the UK government would be investing £20 million to double the area of ocean under marine protection around the UK Overseas Territories. This commitment included the final establishment of the marine protected area around the Pitcairn Islands that the UK Government proposed in 2015, which permanently closes more than 99% of the 840,000 square kilometre maritime zone around the Islands – 40,000 square kilometres more than originally planned.

The 'Pitcairn Islands Marine Protected Area Ordinance 2016' was drafted and became legally binding in August 2016 (prepared by the Attorney-General, Government of Pitcairn, with contributions from Terry Dawson and Robert Irving as well as the Pitcairn Island Council, in consultation with the island community). This establishes the legal definition and framework for subsequent adoption of the Pitcairn Island Fisheries Management Plan. The Pitcairn Island Fisheries Management Plan was completed in February 2017, which, after revisions, was approved by the Environmental, Conservation & Natural Resources Division Manager, Michele Christian. Consultation with the Pitcairn Island Council and island fishers should have been completed by June 2017, but due to travel issues (British Airways flight disruptions and a French Polynesia air traffic control strike in May 2017 resulted in a missed boat transfer to Pitcairn), this has been postponed to later this year.

(4) Enhancing tourism opportunities

Following the on-island initial consultation with the tourism staff on Pitcairn (Ana Pinto visited Aug-Sep 2014 and Aug-Sep 2016), the content, images and footage for the tourism materials prioritised in the tourism development plan have been collated from various sources. Following the most recent visit (Ana Pinto visited Aug-Sep 2016), and subsequent discussions with the tourism staff regarding design and production details, the following materials have been produced and published:

- Visitor leaflet- including self-guided walks information; information on plant and animal species as well as historical information. Over 300 leaflets has been handed out to island visitors since their delivery to the island in February 2017.
- Information board for display in Adamstown square- large map of the island highlighting the self-guided trails (link with the leaflet) and additional information (eg. first aid points, post office, shop). This is now installed following the delivery of the board in February 2017.

- A second information board (having an environmental/biodiversity focus) has also been produced with a schedule to have it ready delivered to Pitcairn Island on the Aug/Sep 2017 delivery rotation of the Claymore supply ship.

These have been created to enhance the self-guided activities available for visitors, and to highlight the natural heritage and unique biodiversity of the Pitcairn Islands.

The plans for the Pitcairn Museum's natural history interpretive centre were included in the 'Visit Report' for Ana Pinto's visit in September 2014. A consultation was undertaken with Carol Warren (Museum Curator), and the cataloguing process had started (for museum items that could have been used for the natural history links). Future redevelopment plans for the museum (as part of project EDF11, in prep), have caused a shift in the Museum's interpretation priorities. Digital interpretation has more recently been identified as the priority, due to the transferability potential and consistency with future museum developments. The natural history of the Pitcairn Islands will be displayed via a new media screen that showcases wildlife images and information, as well as video footage and interviews with project collaborators regarding the Marine Protected Area and other marine environmental information. A media screen will be delivered to the Pitcairn Islands in the next rotation of the Island's supply ship (August 2017) and installed in the Museum.

A video has been produced to display in cruise ships and the Pitcairn Island Museum - highlighting the local wildlife; information on the marine protected area and featuring scientific and project staff (Heather Koldewey, Robert Irving, Terry Dawson and Ana Pinto) as well as members of the Pitcairn community (available from ZSL via USB and/or web transfer on request).

(5) Media activities, advocacy and public outreach

- A number of articles have been written by members of the Darwin Project team, several of which have been published in Pitcairn-centred Newsletters (Annex 5). This has helped inform the Pitcairn community of project progress, particularly during times when there have been no visits to the island by project staff.
- Fiona Llewellyn (ZSL, on behalf of the Marine Reserves Coalition) led a Great British Oceans (GBO) strategy meeting in Apr 2016.
- A new website from the 'Pitcairn Environment Group' (UK stakeholders) went live in May 2016 at: <http://www.pitcairnenvironment.org.pn/> with contributions from the Darwin project team.
- In August 2016, the book *Britain's Treasure Islands - a journey to the UK Overseas Territories* by Stewart McPherson, was published, following a successful showing on BBC4 of the 3-part documentary of the same name. Robert Irving was invited to co-author the chapter on the Pitcairn Islands and he also co-edited the whole book. A copy of the book has been sent to the school on Pitcairn, with additional free copies given to several members of the community who contributed to it. Free copies have also been distributed to all secondary schools in the UK.

Public Presentations:

- Terry Dawson, 2015. *The Pitcairn Islands*. In: *Sustaining Partnerships: a conference on conservation and sustainability in UK Overseas Territories, Crown Dependencies and other small island communities*. Gibraltar, July 2015. Ed. by M. Pienkowski & C. Wensink. pp 232-233.
- Robert Irving, 2014. *Remote islands and their marine provenance – the risks posed by unwanted introductions*. Presentation to the 4th meeting of the Marine Alliance for Science and Technology for Scotland, Heriot-Watt University, 3-5 September 2014.
- Heather Koldewey, 2014. *Establishing the largest marine reserve in the world: scientific justification and management challenges for the Pitcairn Islands*. Presentation to the 3rd International Marine Conservation Congress, Glasgow, 14-18 August 2014.
- Robert Irving, 2016, "The Pitcairn Islands - managing their marine resources", South East Group of the Marine Conservation Society, Imperial College, London, April 2016.
- Terence P. Dawson, 2016, "Establishing the largest Marine Protect Areas in the world- management challenges in the Pitcairn Islands", Chartered Institute of Ecology and

Environmental Management conference “*Protecting marine and coastal areas in the UK and Overseas Territories*”, Darwin House, London, 21 September 2016.

- Tom Letessier (ZSL), “Isolated reefs and seamounts represent a last stronghold for oceanic vertebrates”, Chartered Institute of Ecology and Environmental Management conference “*Protecting marine and coastal areas in the UK and Overseas Territories*”, Darwin House, London, 21 September 2016.
- Ana Pinto (ZSL) ‘*Fostering ocean literacy through conservation in context: the Pitcairn Islands example*’ at the EMSEA (European Marine Science Educators Association) conference Titanic Belfast, NI, 4th October 2016.
- Heather Koldewey (ZSL), ‘*From fish to livelihoods – sharing experiences of the benefits and challenges of marine protected areas from around the world*’ at the international workshop on Easter Island ‘The Science and Culture of Marine Conservation on Rapa Nui’ April 24-27, 2017.
- Terence P. Dawson, Keynote Speaker: Marine Protected Areas: a cultural dimension (A Case Study from the Pitcairn Islands), Historic Environment Projects and Activities within Marine Conservation Zones, Historic England Workshop, 11 May 2017, London.

Other activities:

- Pitcairn Environment Group – meetings of this group have taken place twice a year since its inauguration in May 2013. Meetings have been hosted by the Pew Charitable Trusts at their London offices. The 8th stakeholders meeting was held on 5th May 2016 at the Pew Charitable Trusts UK headquarters, 248A Marylebone Road, London (minutes available). Darwin team members present were Terry Dawson, Robert Irving and Ana Pinto, with Michele Christian connecting through a teleconference link from Pitcairn.
- April 2017. Terry Dawson & Robert Irving attend a workshop hosted by St Andrews University entitled ‘Marine Science in the Pitcairn Islands’.
- BBC Radio 4 programme ‘Costing the Earth’ Britain Rules the Waves, Terence P. Dawson interview on the proposed Pitcairn Islands Marine Reserve, broadcast on 15 and 16 Sept 2015 (Podcast available online, see Annex 5).

(6) Policy advocacy and Parliamentary activities

- Sept. 2014. Terry Dawson, Heather Koldewey and Robert Irving attend the launch of the initiative for MPAs in UK Overseas Territories at the Palace of Westminster, hosted by Zac Goldsmith MP.
- 25 May 2016. Terry Dawson and Robert Irving attended the ‘Great British Oceans Blue Belt Reception’ at the Palace of Westminster, hosted by Richard Benyon MP and the Great British Oceans campaign (update on MPAs in the UKOTs).

Output indicators in the logical framework:

Output 1:	Fisheries research reports and appraisals. Developing a collection of GIS maps (atlas) of fisheries zones, marine habitats and ecosystems.			Comments (if necessary)
	Baseline	Change recorded by 2017	Source of evidence	
Indicator 1.1: Fisheries and regional socio-economic reviews conducted and integrated into an assessment report	Report from earlier Darwin Challenge Fund project: Irving, R.A. and Dawson, T.P. 2012. <i>The marine environment of the Pitcairn Islands</i> . Dundee: Dundee University Press:	- MSc student Henry Duffy (Imperial College London), under the supervision of Dr Tom Letessier and Robert Irving, undertook a fish and fisheries assessment using Baited Remote	- Henry Duffy MSc Thesis, 2014: ‘Fisheries Resources of Pitcairn Island: Assessment and Management Challenges’ (2015 AR2 SUPP7) - Pitcairn Island Economic Report	

	ISBN 9781845861612.	Underwater Video Systems (BRUVs) from June to September 2014. - 'Pitcairn Islands Economic Report' (2014); - Henderson Island BRUV fish database conducted in 2015 by Terry Dawson and Robert Irving. - Marine and fisheries policy research undertaken (MSc projects).	published (2015 AR2 SUPP13) -Henderson_BRUV_Species.xlsx (2016 AR3: SUPP1) - Kirsty Grey MSc Thesis, 2016: "Recommended Actions for the Inshore Marine and Fisheries Management Plan for Pitcairn Island". - James Nikitine MSc thesis, 2016: "Establishing large, remote no-take marine reserves: An evaluation of the Pitcairn Islands Marine Reserve".	
Indicator 1.2: Individual fisheries species assessed in a local context	Only variety of fish known (local names). No data on abundance or fishing effort.	Voluntary fish catch recording scheme instigated in Sep 2014 and taken up by circa 50% of fishers. Data have allowed us to make initial assessments of stock and fishing effort. Data from <i>in situ</i> BRUV (above) recordings has provided data on species present, abundance and size ranges. - Development of fish fact sheets for the following species: Red snapper, Pacific chub, Lyretail/Coronation cod, Wahoo, Spiny lobster (two species) and Rock lobster.	Catch returns summary report_Sep14-Aug15.docx (2016 AR3: SUPP2) 2016 AR3: SUPP5 Red Snapper_species_BAP.docx 2016 AR3: SUPP6 Nanwe_species_BAP.docx 2016 AR3: SUPP7 Faafaia_species_BAP.docx 2016 AR3: SUPP8 Wahoo_species_BAP.docx 2016 AR3: SUPP9 Spiny lobster <i>Panulirus pascuensis</i> _BAP.docx 2016 AR3: SUPP10 Spiny lobster <i>Panulirus penicillatus</i> _BAP.docx SUPP11 Slipper lobster <i>Scyllarides haanii</i> _species_BAP.docx	It will be important to ensure logging of catches continues after the end of this project.
Output 2:	Operational quay-side weighing station and catch logbook.			Comments (if necessary)
	Baseline	Change recorded by 2017	Source of evidence	

<p>Indicator 2.1: Commercial grade weigh scales installed at Bounty Bay</p>	<p>Fish catches not weighed, so no data available. However, individuals of certain species (e.g. sharks, wahoo, yellowfin tuna etc), if thought to be particularly large, have been weighed in the past.</p>	<p>In Sep 2015, three hand-held weigh scales (of two different makes) were presented to the Fisheries Officer for assessment. Ways of recording catches have been discussed with the Fisheries Officer, who recommended current method (i.e. individuals reporting their own catches to the FO) as best.</p>	<p>Logbook and portable weighing scales now located at Bounty Bay. (see Annex 2)</p>	<p>Obtaining catch weights is not essential for the success of this aspect of the project but it will add very useful data regarding the landing sizes of species. Persuading uptake of this method has proved tricky (particularly based on 'waste of time/effort' attitude by some fishers).</p>
<p>Indicator 2.2: Methodology established for the collection of data and information</p>	<p>Historically (from 1950s to 1990s), community fish catches used to be reported on a monthly <i>ad hoc</i> basis in the island's journal <i>Miscellany</i>. However, these records are too crude for effective comparisons to be made.</p>	<p>Daily catch logsheets are kept by the Fisheries Officer on days when fishing takes place. This relies on individual fishers reporting their catches (something which half are now doing voluntarily). Summary catch record sheets are emailed to Robert Irving on a quarterly basis, for analysis. An experimental on-line reporting system (devised specifically for the Pitcairn Islanders to encourage greater take-up of recording catches) has also been created and discussed with key individuals.</p>	<p>Individual log sheets and spreadsheets are available and held by the Island Fisheries Officer. Catch returns Annual summary report, Sep14-Aug15 (2016 AR3: SUPP2)</p>	<p>It is hoped that others may be encouraged to participate. For the data to be presented and used with confidence, a greater take-up than 50% is required, which we have achieved to date.</p>
<p>Indicator 2.3: Fishery activities are monitored</p>	<p>Prior to this project appointing a Fisheries Officer (FO), no records were kept of when fishing 'forays' took place, by how many people and what quantity & species of fish were caught.</p>	<p>The FO now keeps a record, <i>when she is aware</i>, of when fishing takes place. However, some 'forays' may go unreported or unnoticed.</p>		
<p>Output 3:</p>	<p>All island fishers trained in, and utilising, fisheries monitoring and management protocols. Household-level economic action plans</p>		<p>Comments (if necessary)</p>	

	Baseline	Change recorded by 2017	Source of evidence	
Indicator 3.1: 12 participants attending workshops and other training events	No previous activity	A public meeting was held on Pitcairn in September 2015 with the majority of active fishers being present. Training workshops conducted in 2015 and 2016 on 'Status and Ecology of the important Pitcairn fisheries' and 'Fisheries Management' respectively. In 2016, results of the first year of fish catch data were presented, together with a summary of the work undertaken by the project at Henderson Island a few days prior to the meeting, by Robert Irving & Terence Dawson.	Powerpoint presentations, records of attendance, summary reports, photographs of engagement (Available on request)	
Indicator 3.2: Local fishers, in collaboration with Fisheries Department, enforcing community agreed sustainable fishing practices		The NRD has continued to explain the proposed new fisheries legislation to islanders/local fishers with the fisheries management plan planned for adoption in 2017.	Email correspondence with Pitcairn Islands Government Attorney General.	

Output 4:	Establishment of a legally-binding fisheries management plan as a basis for external organisations (fishing) negotiations (permit issue or no-take zone delimitation).			Comments (if necessary)
	Baseline	Change recorded by 2017	Source of evidence	
Indicator 4.1: Status of legal, policy and institutional reforms and collaborative agreements for improved management of fisheries	No management of Pitcairn's inshore fisheries existed before the commencement of the project.	The Pitcairn Islands marine and fisheries ordinance have been fully revised and a management plan has been published.	Publications: Dawson et al. (2017) Fisheries Management Plan for the Pitcairn Islands Coastal Conservation Areas, Draft V4.2, March 2017, 19pp. (SUPP 1)	

Indicator 4.2: Local codes, laws and regulations compatible with sustainable fisheries and marine resources conservation and extraction	No laws exist.	A revision of the Pitcairn Regulations (Marine and Fisheries) (with contributions from the Darwin Initiative team) has been published by the Government of Pitcairn	Pitcairn Islands Marine Protected Area Ordinance 2016	Available from: http://www.government.pn/Laws/2016-09-13%20Pitcairn%20Islands%20Marine%20Protected%20Area%20Ordinance%202016.pdf
Output 5:	Dissemination of information to stakeholders, scientific/conservation community and raising awareness within the general public and international media.			Comments (if necessary)
	Baseline	Change recorded by 2017	Source of evidence	
Indicator 5.1: Stakeholders outreach: slide show presentations, posters, displays, identification guides and other interpretive materials; website set up to provide up-to-date information. Key stakeholders informed at least every three months through email, newsletters and steering group meetings.	No project website	The Pitcairn Environment Group (PEG) members has developed a collaborative website which became live in May 2016. All members (including Pitcairn Islanders) have had input and provided text, images and footage. - Presentations at the UKOTCF symposium in Gibraltar, July 2015.	Website: http://www.pitcairnenvironment.org.pn/ 2016 AR3: SUPP12 TourismOutreach 2016.docx 2016 AR3: SUPP16 Session08Marine_03Dawsontalk.pdf 2016 AR3: SUPP17 Session08Marine_12Dawsonposter.pdf	
Indicator 5.2: Public outreach: website, social media, Marine Instant Wild.	No activity	Ongoing – see separate updated tourism report	2016 AR3: SUPP13 UK schools engagement stats.docx	
Indicator 5.3: Media outreach: articles, periodicals, journals	No activity	Ongoing - several publications (see Annexe 5)	2016 AR3: SUPP14 Dawson_PCB_2015.pdf 2016 AR3: SUPP15 DemTull2016JanFebMarch.pdf	

3.2 Outcome

We believe the project has successfully achieved its intended Outcome, despite a number of difficulties (and delays) along the way. We are currently awaiting the ratification of the proposed Fisheries Management Plan by the Pitcairn Islands Council. This was due to have been completed by the end of the project (April 2017), but unexpected delays due to unforeseen circumstances has meant this decision has been put back to later in 2017.

Outcome:	This project will produce a fully-operational fisheries and marine management plan that is ecosystem-based and sustainable, which will enhance tourism development, and which is crucial to providing a secure future for the economic benefit of the Island community and protection of the unique marine biodiversity of the Pitcairn Islands.			Comments (if necessary)
	Baseline	Change by March 2017 (end of project)	Source of evidence	
Indicator 0.1: Monitoring protocols in place, a quayside weigh-station is established and a central database of marine monitoring data is maintained	None of these methodologies existed prior to the commencement of the project (September 2013).	<p>Protocols to acquire fish catch data on a monthly basis are now in place. Individual fishers complete individual logsheets (one A4 side per catch event) and submit these to the FO by the end of each month. Some fishers prefer to pass on catch information verbally and it is transcribed onto logsheets by the FO.</p> <p>The idea of a quayside weigh-station was dropped at the end of 2014 in favour of portable hand-held weigh-scales. Three of these (of two makes) were left on the island in September 2015 in order to assess their usefulness.</p>	<p>Individual fish catch record sheets available on request. A process of scanning these and saving as pdf documents has been introduced.</p> <p>One complete year of fish catch records was completed (Sep14 – Aug15). Records for the following year (Sep15-Aug16) were incomplete for reasons given elsewhere.</p> <p>- Summary report: 2016 AR3: SUPP2 Catch returns -Summary report_Sep14-Aug16.docx - Catch returns summary report_2017 (Available on request)</p>	There had been an interruption during 2016 in maintaining the monthly fish catch records, due to the absence (off-island) of the FO (accompanying her partner off island for enforced medical reasons).
		Excel spreadsheets, detailing all fish catches since September 2014 are maintained by the FO and have been passed on to Robert Irving.	We have been unable to ascertain whether the hand-held weigh-scales are being used or not. It may well be that individual fishers have found their use too tedious (especially with regard to noting down weights of fishes)	

<p>Indicator 0.2: Fisheries management plans in place for spiny and slipper lobsters, coral trout and other groupers</p>	<p>No fisheries management plans existed prior to commencement of the project.</p>	<p>Management plans (as well as individual Species Description Sheets) have been prepared for spiny lobsters (2 species), slipper lobster, coral trout, red snapper and wahoo (the main species of conservation concern). An additional sheet has also been prepared for the island's most frequently caught species, nanwe (Pacific chub).</p>	<p>- Dawson et al. (2017) Fisheries Management Plan for the Pitcairn Islands Coastal Conservation Areas (SUPP 1) - Species Description Sheets (supplied with 2016 AR3)</p>	
<p>Indicator 0.3: Marine management plan legally ratified that includes a globally significant MPA</p>	<p>No marine management plan or MPA</p>	<p>Through the MRC (Marine Reserves Coalition), we have continued to work closely with the Foreign and Commonwealth Office to support the implementation of the designation of the MPA. Considerable ongoing political engagement (led by Heather Koldewey with Fiona Llewellyn through the MRC) to maintain support for the Blue Belt in general and Pitcairn in particular through the election campaign. The good news was that all major political parties included a commitment to the Blue Belt in their manifestos and the Conservative Party had a stronger commitment to this. We are now engaging with the new relevant politicians following the election.</p>	<p>A parliamentary reception was scheduled to take place on 25 May 2017 which updated the stakeholder community on Government plans and activities (Great British Oceans Blue Belt Reception, Palace of Westminster). However this was postponed to later this year (2017) due to the General Election on 8 June (Parliament in purdah).</p>	<p>Fisheries Management Plan awaiting ratification by Pitcairn Islands Council (June 2017).</p>

<p>Indicator 0.4: Tourism and outreach package in place on visiting cruise ships and at the Pitcairn heritage museum and through the Internet</p>	<p>No materials</p>	<p>Consultation with tourism department and with ZSL's interpretation team complete- production of leaflets, information boards, video and digital interpretation for museum.</p> <p>Content for digital interpretation for the PI museum being finalised. This will feature in a media screen showcasing images and information regarding the natural environment of the Islands as well as a short video featuring scientific project collaborators covering various aspects of the marine environment of the Pitcairn Islands</p>	<p>20-006 Tourism & Outreach final report (SUPP 2) - Outreach materials: leaflets, information boards and film): - No. leaflets= 1,100 - 1 x large board featuring map of Pitcairn Island with highlighted routes for walking - 1x large board featuring the MPA and other marine conservation information - 1x video featuring Prof. Terry Dawson, Dr Heather Koldewey, Robert Irving and Ana Pinto - 1 x media screen ordered for Museum, to feature digital interpretation (natural history) and video) - Media screen and digital interpretation for the PI Museum will be delivered in the next supply ship (Aug-Sept) and installed in the Museum.</p>	
<p>Indicator 0.5: References to Pitcairn in Parliamentary questions, Google ranking for project websites</p>	<p>No activity</p>	<p>Ongoing – see above Indicator 0.3. Our project has been actively engaged in advocacy activities in Parliament in support of the MPA designation.</p>	<p>- Website: In 2016: 642 page views, 2017: 215 page views to date. - Ana Pinto Blog page: No. of hits - page views>2140 unique page views>1395.</p>	

3.3 Impact: achievement of positive impact on biodiversity and poverty alleviation

Impact statement from logframe:

Improved stewardship of Pitcairn's EEZ will contribute to the Millennium Development Goals (MDGs) and global targets for marine protection set by the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related biodiversity targets, achieved through an effective management programme of marine biodiversity in the Pitcairn Islands that integrates a sustainable future and economic opportunities for the local community.

4 Contribution to Darwin Initiative Programme Objectives

4.1 Contribution to Global Goals for Sustainable Development (SDGs)

Whilst the project was conceived before the establishment of the Sustainable Development Goals, we believe our project addresses a number of these. Specifically:

- Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

However, we also think our activities support two other goals:

- Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (8.4 - Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead);

- Goal 12: Ensure sustainable consumption and production patterns (12.2 - By 2030, achieve the sustainable management and efficient use of natural resources);

4.2 Project support to the Conventions or Treaties (CBD, CMS, CITES, Nagoya Protocol, ITPGRFA)

The overall aim of the project is to ensure long term protection for marine biodiversity in the Pitcairn Islands consistent with the Convention on Biological Diversity (CBD)* within a context of potential commercial fisheries and local community extraction. With this in mind, a marine and fisheries management plan, underpinned by a scientific evidence base, will form the basis of a long-term adaptive management strategy. The scientific analysis of the fish communities from the BRUV surveys conducted over the May to Aug 2015 period is now completed and comparison is being made with French Polynesian fish communities (Letessier, *et al.*, 2017 publication in preparation). Heather Koldewey has engaged with Dr Yvonne Sadovy, Chair of the Grouper and Wrasse Specialist Group and Dr Nick Dulvy, Chair of the Shark Specialist Group, to establish a mechanism to use the data collected by the Darwin project to inform regional species assessments.

The project has also been engaging in activities relating to the Convention on the Conservation of Migratory Species of Wild Animals (CMS). During his visit to Pitcairn in May/June 2014, Robert Irving introduced all of the islanders to a method of recording sightings of Humpback whales made from the island. A small population of these whales visits the island each year between the months of June and October. Further data were collected on whale sightings at Henderson Island (courtesy of the islanders Pawl Warren and Sue O'Keefe, who were stationed on Henderson Island for 6 months from May 2015 until Dec 2015 as part of the RSPB invasive species programme). Data have now been gathered on start/end dates of whale visits; likely numbers present; composition of groups (adults/young); and observed behaviour for the years 2015 and 2016. From this activity, we have been able to confirm Pitcairn Island and Henderson as birthing grounds for these species, a significant finding. A peer-reviewed publication has been submitted based on the results (Irving *et al.*, 2017). This aspect of the project will assist obligations linked to the CMS.

* The CBD does not yet extend to the Pitcairn Islands group.

4.3 Project support to poverty alleviation

As stated earlier, Pitcairn currently relies on budgetary aid from the UK government for over 90% of its income. Fishing is an important livelihood strategy for the Pitcairn Island community with most households having one or more fishers. However, the establishment of the marine reserve has created potentially new opportunities for economic development through tourism. During the lifetime of the project we have initiated or collaborated on island activities that have:

1. Provided social and ecological information through research that is directly and primarily relevant to the unique natural history of the Pitcairn Islands (specifically relating to the marine

environment, fishing and tourism). The establishment of the marine reserve will increase tourism to the Pitcairn Islands;

2. Built capacity in Pitcairn, through training of community members, the promotion of the Island's Museum and strengthening research infrastructure and capability (educational and laboratory material and equipment, outreach training, marine conservation). This has led to two new jobs on the island as well as income for the local boat owners through marine-based tourism opportunities.

4.4 Gender equality

King's College London and the University of Dundee, the two lead partners of the project, hold the Bronze institutional award of Athena SWAN. The Equality Challenge Unit (ECU) Athena SWAN Charter was established in 2005, originally to encourage and recognise commitment to advancing the careers of women in science, technology, engineering, maths and medicine (STEMM) employment in higher education and research. In May 2015 the charter was expanded to recognise work undertaken to address gender equality more broadly, and not just barriers to progression that affect women.

The Pitcairn community is very small (~50 people) so the project works with the entire community, including men, women and children. We work closely with the Division Manager of the Natural Resources Division, Government of Pitcairn Islands, Michele Christian. The Fisheries and Conservation Officer post, funded by the Darwin project, is currently held by Sue O'Keefe (Appointed April 2015). Charlene Warren-Peu was appointed temporary Fisheries Officer from May to Nov 2015, in Sue's absence off the island. We also cooperate with the Pitcairn Island Administrator, Nicola Hebb, who acts as the main point of contact on-island for the Governor of Pitcairn Islands.

4.5 Programme indicators

- **Did the project lead to greater representation of local poor people in management structures of biodiversity?**
 - The project was able to empower the local community to take an active participation in the management of biodiversity through the development of a community-led fisheries management plan, and through a Pitcairn Government-funded payment scheme for tourism activities directly relating to the marine environment (whale watching, diving, game fishing).
- **Were any management plans for biodiversity developed?**
 - The Pitcairn Islands Marine Protected Area Ordinance was published in June 2016, and the Fisheries Management Plan for the Pitcairn Islands Coastal Conservation Areas was published in Mar 2017.
- **Were these formally accepted?**
 - The Pitcairn Islands Marine Protected Area Ordinance was made legally binding in Aug 2016. The Fisheries Management Plan for the Pitcairn Islands Coastal Conservation Areas was approved by the Pitcairn Islands Government in Feb 2017 and will be ratified later this year after consultation with the Pitcairn Island Council and community.
- **Were they participatory in nature or were they 'top-down'? How well represented are the local poor including women, in any proposed management structures?**
 - Due to the community structure for governance on Pitcairn Island, all management protocols were developed in collaboration with the Pitcairn Island Council and local island fishers. The Pitcairn Island Council has a good gender balance (4 out of 6 councillors are female).
- **Were there any positive gains in household (HH) income as a result of this project?**
 - As a result of the Pitcairn Island tourism payment scheme for boat-based activities, there were some positive gains for the few households (seven) who owned personal boats.
- **How many HHs saw an increase in their HH income?**
 - We were able to establish that four households (from around 20 in total on the island) have been able to take advantage of the payment schemes.

- **How much did their HH income increase (e.g. x% above baseline, x% above national average)? How was this measured?**
 - This is difficult to measure due to the secretive nature of the household income of the islanders. However, on the basis of our own evidence working with two boat holders in September 2016, a total of NZ\$120 per boat was generated from the tourism payment scheme over a 10-day period. This was based upon a single payment of NZ\$30 per boat trip x four trips. It is known that income from the island Government jobs (which is responsibly shared around all the islanders) is around NZ\$100 to NZ\$250 per month (NZ\$1200 to NZ\$3000 per annum). Therefore we can assume that for each of the four 10-day visits per annum that the supply vessel brings tourists to the island, the additional payments could be up to NZ\$480 per annum per boat-owner, which represents an increase of HH income from Government sources of between 16% up to 40% (Note that a significant unrecorded income of HHs include income from 'Island stay' accommodation and the selling of wood carvings, jewellery and other Pitcairn Island paraphernalia such as honey, island coffee, clothing, stamps, coins, books, etc).

4.6 Transfer of knowledge

Did the project result in any formal qualifications?

A total of 3 people achieved the Degree of Master of Science during the lifetime of the project. All European, they were:

- Henry Duffy (Male), Masters in Conservation Science (MSc) (2014): "Fisheries Resources of Pitcairn Island: Assessment and Management Challenges", Imperial College London.
- Kirsty Grey (Female) Master of Science in Marine Systems and Policies (MSc) (2016), "Recommended Actions for the Inshore Marine and Fisheries Management Plan for Pitcairn Island", University of Edinburgh.
- James Nikitine (Male) MSc (2016), "Establishing large, remote no-take marine reserves: An evaluation of the Pitcairn Islands Marine Reserve", University of Edinburgh.

4.7 Capacity building

A total of two new Pitcairn Government positions were created over the lifetime of our project (which are on-going) that specifically related to the activities we have been developing to achieve the objectives of the project. They are:

- Fisheries Officer (funded by the Darwin project), position filled by Sue O'Keefe (female), income is NZ\$200 per month.
- Tourism Assistant (funded by the Integre project), position filled by Melva Evans (female), income is NZ\$200 per month.

5 Sustainability and Legacy

The most significant change over the lifetime of the project was the commitment for the Pitcairn Islands to become a no-take marine reserve. This government commitment, supported with support from the Darwin project team, makes a significant global commitment to the long term conservation and management of the waters around the Pitcairn Islands. At 840,000 km², this is the world's second largest MPA after Papahānaumokuākea in the Hawaiian Islands.

With respect to the long-term sustainability of the project, much of the Darwin Initiative activity has made significant constitutional change to the Pitcairn laws (and behavioural changes of fishers) with respect to the MPA, fisheries and marine management practices, and the enhancement of tourism facilities to increase awareness of the islands' natural environment and infrastructure (permanent sign-boards, museum displays, trail guides, etc).

Terence Dawson and SPC (Darwin project partner) assisted Michele Christian, Head of the Natural Resources Division, Government of Pitcairn Island with the crafting of, and submission of a 10th EDF regional programme initiative (INTEGRE: Pacific Territories Initiative for Regional Management of the Environment, a sustainable development project designed for and implemented by the four European Pacific overseas countries and territories) having a focus on environmental and integrated natural resource management, including co-funding support for tourism developments and fisheries management (see <http://integre.spc.int/en/pitcairn/the->

project-in-pitcairn). Value of the award is £200,000. Funding was awarded in 2014 for 3 years (to 2017) with the project being led by SPC, one of the Darwin Initiative Partners.

A recent science collaboration with the University of Auckland (Professor Andrew Jeffs) was initiated in August 2016 to collect DNA samples from Easter Island spiny lobsters (*Panulirus pascuensis*) of the Pitcairn Islands. This project is on-going with the local community collecting samples (A supply of sample tubes and fixing alcohol was provided by the Darwin project).

In 2017, Terence Dawson has been collaborating with Merlin Entertainments (SEA LIFE) Ltd, the world's biggest aquarium brand with centres across the UK, Continental Europe, North America and the Asia Pacific region. The centres have agreed to supply discarded juvenile shark teeth collected from their aquariums as an alternative to shark fishing on Pitcairn (the islanders use the shark teeth in their wood carvings). A batch of approx 220 teeth was provided to Michele Christian in May 2017, who will consult with the island fishers to see if they will accept this more sustainable source.

6 Lessons learned

- What worked well, and what didn't work well?

Successful activities:

- Tourism and biodiversity elements worked well as they were seen to enhance opportunities and profile for the island. Fisheries management more challenging as seen as a threat to current activities.
- Building on interests of community members to implement whale sighting recordings proved very successful.
- Close coordination with MRC to leverage political will combined with scientific and communication expertise from the Darwin project team to result in the government declaration for the MPA
- Strong collaboration across all stakeholders through the Pitcairn Environment Network resulted in good information flow and better coordination of projects

Less successful (in addition to below):

- Socioeconomic work planned due to the various government-related projects on diaspora etc. which meant there was research fatigue amongst the small population. A revised strategy to look at wellbeing proved challenging to implement due to the court case.
- High level of concern within community about government plans for e.g. potential introduction of taxes, removal of community from island, influenced engagement in a lot of the activities.
- Very slow turnaround of review of materials and community agreement on outputs due to competing priorities on island and the small population size.
- If you had to do it again, what would you do differently?
- Find appropriate project team member who could spend longer periods on island than the 10-18 days available through the supply ship? This may have helped a more timely development and implementation of fisheries monitoring methods.
- Although many of the events (from sickness to the court case) could not have been predicted beforehand, a more precautionary approach to objective setting in the unique circumstances of Pitcairn would be advisable.
- What recommendations would you make to others doing similar projects?
- For those working in Pitcairn Islands specifically, close coordination and consultation with those who have spent time there is advisable.
- What key lessons have been learnt as a result of this project? (including administrative, management, technical, M&E).

- The project had experienced a number of delays over the last two years of the project, which have been primarily due to the small population-base in Pitcairn. This results in a fragile situation where individual illness or specific on-island activities can divert the attention of our island partners to those higher priority events. Terence Dawson attended a meeting with the Governor of Pitcairn, Jonathan Sinclair in Oct 2015, who asked that the NGO community be sensitive to the limited capacity of the small local community at that time, due to some of the issues listed below (specifically items 2 and 3). In 2015, we reported that our original Fisheries Officer (Brian Young) suffered some medical problems in 2014, which resulted in him being off-island on sick leave until September 2014. Upon returning to his post, he suffered further medical problems (and subsequent sick leave), which resulted in his decision to permanently move (with his wife) to New Zealand in Feb 2015. During his absence, we were able to appoint Sue O'Keefe as a temporary Fisheries Officer (now permanent). However, from May 2015 until December 2015, Sue volunteered to work on Henderson Island as part of the RSPB invasive species programme. During this time, we recruited a temporary Fisheries Officer, Charlene Warren-Peu, who enabled us to continue to collect fish catch data although the uptake of fish record-keeping has only achieved a 50% level of all fishers. Soon after Sue's return to Pitcairn from Henderson she needed to accompany her partner to Tahiti on medical grounds, a period which kept her away from the island for a further 3 months (during 2016). These absences have interrupted the process of fisheries data collection and have had major impacts to this aspect of the project. Other issues that have resulted in some delays to our original timetable were as follows:
 - (1) Increased international visitors (including other NGO activities) and medical evacuations have resulted in fewer opportunities to visit Pitcairn over the last 20 months due to lack of berths on the transportation ship;
 - (2) The alternative harbour project on Tedside resulted in most of the able-bodied adults spending their time working on this development from April 2015 to May 2017, which has resulted in a lack of engagement on the fisheries management consultations and their useful inputs to the process. Since the start of the project, the island population has also declined by approximately 10%, which increases workload pressures on all existing residents. Fishing effort has been much lower than usual in the last 12 months due to the labour demands of the Tedside development and other island activities. Fish catch records have therefore been more sporadic than anticipated and the community have had fishing-related activities as lower priority;
 - (3) An International criminal trial took place on Pitcairn Island during the Feb/Mar 2016 transport schedule, and all berths were fully-booked. Given the historical connection of this trial with 'Operation Unique' that involved all the islanders, the trial dominated the Islanders focus over this period, so we decided to keep a low profile in our interactions at that time due to local sensitivities.
- In November 2015, we applied to the Darwin Secretariat for, and were awarded a 6-month no-cost extension of the project, with a revised end-date from 30th September 2016 to 31st March 2017.
- The planned visit of the legal team (Pitcairn Government Attorney General) and Terry Dawson to complete consultations on the Fisheries Management Plan with the PIC and island fishers in May/June 2017 was postponed due to an Air Traffic Control strike in French Polynesia. This has been rescheduled to Nov 2017.

6.1 Monitoring and evaluation

There had been no significant changes to the monitoring and evaluation plan. All of our indicators were selected on the basis that they were SMART (specific, measurable, achievable, relevant and time-bound). Regarding catch information from fishers, we have only obtained circa 50% fishers compliance in providing data. However, some indicators have been quite difficult in obtaining (for example, household income from activities, such as the sale of fish, lobsters and curios and carvings to cruise ship passengers). A baseline energy survey conducted in 2016 will attempt to measure a proxy for 'quality of life' through an inventory of

household items (electronics, kitchen aids, transport ownership, e.g. quad bike(s), fishing boat and gardening tools). This is currently being assessed by the Operations Division, Government of Pitcairn.

We had made a change request in 2015 to enable a funds transfer between cost categories, which was agreed in March 2015 to enable the project to employ a research assistant (Michelle Crick, Conservation Sans Frontieres) to progress the development of the legal framework for fisheries management and the Pitcairn Marine Reserve in collaboration with the Pitcairn Government. This was because the UK budgetary aid to support the Pitcairn administration was significantly reduced as a result of UK Government austerity measures, which meant that the Pitcairn Government were unable to fund the legal team to develop the legislation for the fisheries management plan. A no-cost extension of 6-months was also awarded due to delays in delivering outputs that were beyond our control (but were completed in the same financial year).

6.2 Actions taken in response to annual report reviews

There were only minor issues raised in the previous review of the annual reports (responses were to be included in the following half-year reports), which was primarily relating to the delays in our original timelines (essentially beyond our control) and presentation in the reports of our activities and achievements of the outputs and outcomes of the project (improved quantitative data). All feedback was discussed with partners and on-island where applicable. Most of these issues have been addressed through the revised format of the current Annual reporting requirements, where improved clarity of reporting will facilitate assessment of the project. Another point mentioned was the need for greater exposure of the Darwin Initiative support (use of the logo, for example) on reports and outputs (web-sites). This has now been addressed. For example, a new Pitcairn website has recently been launched, compiling all information and news from across members of the Pitcairn Environment Group. This does recognise Darwin Initiative support for this project. The ZSL website has now been revised and features the support from the Darwin Initiative more clearly on the Pitcairn web page. Delays in addressing this were due to the ZSL digital team developing an approach to recognise funders appropriately across the website.

7 Darwin identity

- All project presentations, web sites and publications utilise the Darwin Initiative logo and/or highlight acknowledgements of the Darwin Initiative financial support. Given the earlier Darwin Challenge fund project in Pitcairn to Terry Dawson (No. EIDCF003) (2010-2012), the Darwin Initiative is well known by all members of the island community, and the wider Pitcairn stakeholder groups.
- At present, the project information is hosted on two websites:
 1. <http://www.zsl.org/regions/uk-and-overseas-territories/pitcairn-islands-marine-conservation> (2016: 642 page views, 2017: 215 page views to date);
 2. <http://www.pitcairnenvironment.org.pn/>
- Ana Pinto's blogs are also online and used as the basis of the outreach engagement with schools in the UK <http://www.zsl.org/users/ana-pinto>
- The MRC and Darwin team helped establish a Great British Oceans website in 2015 which profiles Pitcairn (www.greatbritishoceans.org).
- Heather Koldewey (@heatherkoldewey, 2,883 followers), Ana Pinto (@ana7pinto, 87 followers), @ZSLMarine (5,643 followers), MRC (@MRC_Marine, 2,869 followers) regularly share information on Pitcairn, as well as periodically by @ZSLConservation and @OfficialZSL accounts.
- Project information is shared through the ZSL Marine and Freshwater (2,681 followers), MRC (1,024 followers) and Protect Pitcairn (16,800 followers) pages.
- The Darwin Initiative logo has been added to all reports, Species Information Sheets and on articles written for publication in various newsletters.

8 Finance and administration

8.1 Project expenditure

No additional funds drawn down in the 2016-2017 final year (no-cost extension). Final project accounts to be updated/audited by the University of Dundee and submitted separately.

8.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)
Pacific Community (SPC co-funding)	
University of Dundee	
Zoological Society of London	
Sea-Scope Marine Environmental Consultants	
Marine Reserves Coalition	
National Geographic (Video footage from the 2012 expedition)	
MASTS (Pitcairn Fellowship funding)	
Pew Charitable Trust (Advocacy activities and travel funding)	
TOTAL	134,000

Source of funding for additional work after project lifetime	Total (£)
10 th EDF regional programme initiative (INTEGRE)	
TOTAL	200,000

8.3 Value for Money

The timing of our project was critical for the successful designation of the Pitcairn Island marine reserve – a large evidence base drawn from our scientific reports and publications can demonstrate the essential contribution of our project activities towards this very important and globally-significant legacy. Working collaboratively with Pew Charitable Trust, we have been able to harness both resources and the good-will of a large number of additional partner institutions, Government ministers and Members of Parliament in achieving project outcomes. Because of their isolation, visiting Pitcairn Island, supplying goods and scientific equipment and/or building infrastructure on-island is very expensive, and time-consuming due to the infrequent supply ship visits. However, we have managed to deliver all outputs and outcomes and achieve many more activities than was originally planned within budget.

Annex 1 Project's original (or most recently approved) logframe, including indicators, means of verification and assumptions.

LOGICAL FRAMEWORK: A sustainable marine and fisheries management plan for the Pitcairn islands (20-006)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact			
Improved stewardship of Pitcairn's EEZ will contribute to the Millennium Development Goals (MDGs) and global targets for marine protection set by the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related biodiversity targets, achieved through an effective management programme of marine biodiversity in the Pitcairn Islands that integrates a sustainable future and economic opportunities for the local community.			
<p>Outcome (see note *, below)</p> <p>Establishment of a fully-operational fisheries and marine management plan that is ecosystem-based and sustainable, to enhance experience and income from tourism development, and which is crucial to providing a secure future for the economic benefit of the Island community and protection of the unique marine biodiversity of the Pitcairn Islands.</p>	<ul style="list-style-type: none"> - International fisheries advisory committee established by 2014 - Fisheries Management Plan operational by 2016. - Establish baselines and achieve increasing trends in presence and abundance of priority species of fish and invertebrates at selected sites (MDG 7.4. Proportion of commercial fish stocks within safe biological limits) over the lifetime of the project. Baselines to be determined in 2013/14. - At least 30% of the Pitcairn EEZ fully protected (Marine Reserves Coalition and CPAWS guidelines. Baseline is 0%) (MDG 7.6. Proportion of marine areas protected) - Establish baselines and achieve Increasing trends in populations of at least 5 flagship IUCN red list species within Pitcairn EEZ (MDG 7.7 Proportion of species threatened with extinction). 	<ul style="list-style-type: none"> - Reports of meetings of the Fisheries Advisory Committee. - Pitcairn Island marine management plan published. - Legally constituted fisheries regulations. - Marine biodiversity survey reports (e.g. feeding station assessments, shark records, transect surveys and fish counts), manual of methods, marine biodiversity database. - Conservation status reports of flagship IUCN Red List and endemic species in Pitcairn submitted to IUCN and relevant specialist groups. - Biodiversity Action Plans. - Household social-economic surveys, livelihood diagnostics. - Marine environment interpretive centre, research facilities, tourism outreach pack, Pitcairn Marine Instant Wild facility. - Meeting minutes, Parliamentary questions; symposium proceedings; journal publications; website hits; Twitter followers; Facebook likes. - Economic reports (e.g. Annual DFID Business Case and Intervention Summary reports). 	<ul style="list-style-type: none"> - The population of Pitcairn is receptive and are willing to engage with the project. - Cruise ships continue to visit the Pitcairn Islands. - The UK Government continues its support for biodiversity conservation in the UK Overseas Territories, leading to greater interest in the Islands.

	<ul style="list-style-type: none"> - Establish baseline and achieve 15% increase in income in 80% of households from new markets, trade and sale of fish and/or sustainable nature-based tourism products to island visitors, cruise ships, passing traffic and to French Polynesia by 2016 (baseline US\$760 mean income per annum over 20 households) (MDG 8.9 Building trade capacity). - 50% Tourists visiting Pitcairn have a higher awareness of and engagement with marine biodiversity (prior/post project Initiation). - Pitcairn tourism is sustainable. 	<ul style="list-style-type: none"> - Data on markets, trade and sale of fish to cruise ships and passing traffic and to French Polynesia (Island Store Accounts). - Tourist arrival and departure questionnaires and follow up surveys. - Community perception surveys. - 'Best Practice' Environmental and Sustainability' policies established and monitored (tourism provider feedback; Updates/ enhancement of the Pitcairn Environment Charter). - Monthly catch monitoring reports /audits. - Tourist arrival/departure surveys, Social media and website surveys. On-board ship surveys. 	
<p>Outputs</p> <p>1. Fisheries research reports and appraisals. Developing a collection of GIS maps (atlas) of fisheries zones, marine habitats and ecosystems.</p>	<ul style="list-style-type: none"> - Assessment report incorporating fisheries and socioeconomic reviews. - Minimum 5 individual fisheries species assessed using an ecosystems-based approach in a local context. - 80% fishing grounds mapped for Pitcairn Island and 40 mile reef. 	<ul style="list-style-type: none"> - Project monitoring and evaluation reports - Scientific reports and journal and book publications - Habitat data records - GIS maps and datasets - Marine survey reports 	<ul style="list-style-type: none"> - Fisheries data for local species is accessible and the Pitcairn community will be supportive in providing non-published but valuable information e.g. from fishers and divers.
<p>2. Operational quay-side weighing station and catch logbook.</p>	<ul style="list-style-type: none"> - Commercial grade weigh scales installed and used at Bounty Bay by 2014. - Methodology adopted for the collection of data and information by 2014. - 80% fishers individually reporting to the Fisheries Officer: Catch records (priority species numbers and weights) and fishing effort. 	<ul style="list-style-type: none"> - Fisheries Officer position established by the Natural Resources Division of the Pitcairn Government. - Individual fish landing record sheets. - monitoring data and reports arising from central database of fisheries (Natural Resources Division). 	<p>Fishers agree to record their fishing activities and catch.</p>

		- Monthly catch summary publications on the status of fisheries utilisation.	
3. All island fishers trained in, and utilising, fisheries monitoring and management protocols. (leading to improved capacity of island communities and partners to participate in planning and management for fisheries livelihoods) - Economic and social benefits for the islanders is enhanced	<ul style="list-style-type: none"> - At least 2 on-island training workshops on management and legislation of natural resource management attended by 90% of island fishers. - Community Fishers organisation established (legally recognised by Pitcairn Government) (adhering to UN FPIC [Free prior and informed consent] principles and 5th COP to the CBD Decision V/16 and Article 8J). - Fisheries adaptation and management protocols in place. - 10-20% increase of (active fishers) household income from boat-based fishing and tourism. 	<ul style="list-style-type: none"> - Training workshop attendance - Minutes of meetings and consultations with community, stakeholders and local government and regional fisheries management agencies (SPC). - Evaluation questionnaires. - Social-economic surveys. - Tourism Officer (Pitcairn Government) reports. - Memorandum and Articles of Association 'Pitcairn Fishing and Diving Club' (PFDC). - Membership records, PFDC. - Minutes of the PFDC consultation meetings (with Government representative). - Household-level economic action plans. 	<ul style="list-style-type: none"> - Local community interest in participating in long-term monitoring program. - Pitcairn Government is willing to share decision-making responsibility for marine management - Fishing households cooperate in providing information on income
4. Establishment of a legally-binding fisheries management plan as a basis for external organisations (fishing) negotiations (permit issue or no-take zone delimitation).	<p>Management plan submitted to the Pitcairn and UK Governments in 2016.</p> <ul style="list-style-type: none"> - Collaborative agreements implemented for fisheries management. - Introduction of maps, local codes (bylaws), laws and regulations compatible with sustainable fisheries and marine resources conservation. - At least 5 fisheries management plans adopted for priority species (e.g. spiny and slipper lobsters, coral trout, red snapper, wahoo). 	<ul style="list-style-type: none"> - Management plan. - Government records recording submission / adoption. - Record of meetings with community, stakeholders and local government and regional fisheries management agencies (SPC). 	<ul style="list-style-type: none"> - Management plan is accepted by the Pitcairn Island Council and the Pitcairn and UK Governments.

<p>5. Dissemination of information to stakeholders, scientific/conservation community and raising awareness within the general public and international media.</p>	<p>Scope, frequency and dissemination of information, education and communication (IEC) reports as well as evaluation and monitoring reports:</p> <ul style="list-style-type: none"> - Stakeholders outreach: # of public presentations, posters, displays, identification guides and other interpretive materials; website set up to provide up-to-date information. Key stakeholders informed at least every 3 months through email, newsletters and steering group meetings. 	<ul style="list-style-type: none"> - No of hits on project web-site - Minutes of stakeholder meetings- # articles in international press and popular magazines. - Scientific papers published - Presentations at conferences 	<ul style="list-style-type: none"> - All stakeholders have access to email and web-site for registration (can provide a postal contact for correspondence). - There is interest from the international media.
	<ul style="list-style-type: none"> - Public outreach: website (# of hits), social media (# of followers), Marine Instant Wild. - Media outreach: # of articles, periodicals, journals - Perceptions surveys within key International stakeholder groups at beginning and close of project with 50% of international stakeholder research group have increased knowledge and perception of Pitcairn: 	<ul style="list-style-type: none"> - Museum exhibits in place and evaluated. - References to Pitcairn in Parliamentary questions and correspondence. - Ministerial meetings. - Google ranking for project websites - local community attendance and active participation at public meetings. - Number of participants in talks, workshops and conferences about Pitcairn. # of hits on website, subscribers to e-newsletter, likes on Facebook, followers on Twitter. - # public comments in response to online reports/articles -local community attendance and active participation at public meetings. - # grant applications, scoping visits and research projects implemented (with local collaborations), # scientists visiting/engaged with research in Pitcairn (databases, reports, scientific papers). 	
	<ul style="list-style-type: none"> a) Pitcairn tourists b) Science community c) Conservation community d) General public (UK) e) School children (UK) f) International media 		
	<ul style="list-style-type: none"> - Increase in resolve for marine management, specifically: • 50% Island households actively engaged in activities 		

	that support marine environmental issues <ul style="list-style-type: none"> • 20% Increased level of scientific research in Pitcairn. 		
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* Note: Outcome specifically addresses the following Millennium Development Goals (MDGs):

- MDG 7: “Ensure environmental sustainability”: Target 7.A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources, and Target 7.B: Reduce biodiversity loss, achieving, by 2020 (using revised MDG 2015 and CBD Aichi Targets), a significant reduction in the rate of loss;
- MDG 8: “Develop a global partnership for development”: Target 8.A: Develop ... an open, rule-based, predictable, non-discriminatory trading and financial system, Includes a commitment to good governance, development and poverty reduction - both nationally and internationally, and Target 8.C: Address the special needs of ... small island developing States (SIDS) (through the Programme of Action for the Sustainable Development of SIDS, updated 2005: Mauritius Declaration BPoA+10).

Annex 2 Report of progress and achievements against final project logframe for the life of the project

See also section 3.1. and 3.2 for achievements and evidence base against outputs and outcomes.

Summary timetable (using traffic-light scheme):

(**GREEN: Completed**, **YELLOW: Partially completed**, **RED: Uncompleted**).

Activity Note: All times are approximated and dependent upon transport schedules and availability of key islanders	No of Months	Year 1			Year 2				Year 3				Year 4		
		Q1	Q2	Q3	Q1	Q2	Q3	Q4	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 1 Fisheries research reports and appraisals.															
1.1 In depth review of scientific and fisheries literature relating to Pitcairn species of commercial value	3	X	X												
1.2 Conduct habitat surveys and determine the occurrence and spatial distribution of commercially valued species	1		X								X				
1.3 Conduct biodiversity surveys using standardised approaches	1		X								X				
1.4 Establish a database with historical data and survey results	0.5			X					X						
Output 2 Operational quay-side weighing station and catch logbook															
2.1 Installation of a fish weigh station facility at Bounty Bay	0.2										X	→	X		

2.2	Elaborate a fish catch monitoring plan and protocol for Pitcairn fishers	2								X	X	X				
Output 3 Fishers trained in, and utilising, fisheries monitoring and management protocols. Household economic action plans																
3.1	Development of standardised methods	1	X	X						X						
3.2	Training workshops	1		X			X					X				
3.3	Household-level (fishers) economic development action plans	0.4						X	X			X	→	X	X	
Output 4 Establishment of a legally-binding fisheries management plan																
4.1	Consultation workshops for fisheries management plan	1		X			X					X				
4.2	Development of fisheries management options	3		X	X					X	X	X				
4.3	Preparation of fisheries management plan	3				X	X	X			X	X	X	X	X	X
4.4	Endorsement of fisheries management plan	2						X	X	→	→	→	→	→	X	X
Output 5 Dissemination of information to stakeholders and outreach																
5.1	Consultation workshops on outreach materials and plan	0.2	X													
5.2	Outreach training for 2x Pitcairners	1		X												
5.3	Interpretation and outreach plan for the museum	3	X	X												
5.4	Consultation and design of simple research facilities	3		X	X											
5.4	Installation of interpretive centre in museum	2								X						X
5.6	Consultation with tourism companies and community on enhanced tourism package	1	X													
5.7	Production of tourist outreach pack, including film	4		X	X	→	→	→	→	→	→	→	→	X	X	
5.8	Website and social media established and articles posted	Ongoing	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5.9	Pitcairn Instant Wild cameras installed and tested	1									X	X	→	X	X	X
5.10	Pitcairn cameras live on Instant Wild iphone app	0.2													X	X+
5.11	Webinars with other relevant groups, including Pacific Island nations and Chagossians	0.4		X			X		X	X		X		X		

5.12	Pitcairn conference in UK	0.2							X							X+
5.13	Parliamentary questions tabled in relation to Pitcairn	0.1	X	X	X					X						

Notes and clarifications relating to significant changes to the original planned activity:

Output 1.2. Whilst a number of fish surveys were undertaken, we were unable to complete habitat surveys due to the unavailability of suitable water-craft and personnel to operate it for this purpose at Pitcairn; and our inability to obtain sonar equipment within budget/timescale; and the tricky logistics of transporting equipment to/from Pitcairn.

Output 2.1. It was decided by the Natural Resources Division/Fisheries Officer to adopt the use of the portable weighing scales. A facility has been established at the landing site at Bounty Bay to enable the weighing and recording of fish weights (logbook and portable weigh scales).

Output 3.3. A comprehensive economic assessment was undertaken by the Pitcairn Government (output 2015 AR2 SUPP13): ‘Pitcairn Island Economic Report’, 2014. Several consultations with the island fishers and the island tourism office subsequently have resulted in a number of schemes aimed at improving the economic opportunities for the local communities through increased tourism activities. These activities are on-going and include payments for providing tours, such as whale-watching, diving and fishing.

Outputs 4.3/4.4. Following a number of discussions with the island fishers and the Pitcairn Island Council, the decision was made that the management of the fisheries is to be administered by the Pitcairn Island Council (rather than through a Pitcairn Islands Inshore Fishing and Conservation Association, which was originally developed) with bylaws made legally binding through regulations established by the Pitcairn Island Council. A draft of the fisheries management plan and proposed regulations has been approved by the Natural Resources Division of the Government of Pitcairn Islands and submitted to the Island Council and island community for consultation.

Output 5.3. We conducted discussions with the Pitcairn Island community, including the relevant government divisions, in 2014. At that point in time, the community felt that the items in the museum were not sufficient to highlight the natural history or marine environment of the Pitcairn Islands in a structured way and wanted to retain the current focus of the museum. As an alternative, a tourism plan was developed which focused on developing interpretive materials around the island and developing associated materials, including brochures and videos. These have now been completed and installed.

Output 5.4. The museum will be used as a focal point for disseminating the brochures. We have also purchased a media monitor and materials which will display the video which we have produced. Appropriate orientations will be conducted with the museum staff and tourism division. Delivery of the Media centre will take place in Aug 2017.

Output 5.7. The materials are now printed, following final input from the Pitcairn Islanders during the 2016 visit. The trip also enabled us to collect final footage for the video which will be transferred to the island electronically.

Output 5.9. An Instant wild camera has been delivered to Pitcairn island in Aug 2016 to trial using local WiFi due the constraints of transmission of images from Pitcairn. Once the trials are complete, we will be able to deploy with live imagery from Pitcairn.

Output 5.10. Once we have confidence that the camera is operating successfully, we will be able to make this live on the Instant Wild website.

Output 5.11. The webinar facilities on Pitcairn were unsuccessful due to technical issues relating to satellite band-width, making it complex and unrealistic to deliver at a community level, especially considering the fact that internet access and Skype is unreliable and unstable on Pitcairn Island. We did manage to introduce visiting Pitcairn Islanders to the Chagossian community representatives at events in London. However, the ZSL schools engagement activities covered some of the features of a ‘webinar’, especially the interactive elements, as Ana Pinto delivered and discussed information on Pitcairn in real time using a digital platform (Skype).

Output 5.12. Following the announcement of the UK Government's blue belt policy to protect marine biodiversity in the UK Overseas Territories, with the formal designation of the Pitcairn Islands and St Helena marine reserves at the *Our Oceans* summit in Washington, USA on 14 September 2016, a conference was organised by the Chartered Institute of Ecology and Environmental Management entitled “Protecting marine and coastal areas in the UK and Overseas Territories” on 21 September 2016. Three of the Darwin project partners were invited to

present at this well-attended event: The Keynote Presentation was given by Johnny Briggs (Pew Trust) entitled “Global progress towards marine protection – with a focus on the role of the UK government”. Terry Dawson (KCL) presented a session entitled “Establishing the largest Marine Protect Areas in the world – management challenges in the Pitcairn Islands”. Tom Letessier (ZSL) presented a talk on “Isolated reefs and seamounts represent a last stronghold for oceanic vertebrates”. There are two workshops/conferences planned through the Marine Reserves Coalition in 2017 (which have been delayed due to the 2017 General Election), so our plan is to combine forces with those programmes and make the Pitcairn Islands an example in a wider UKOT initiative.

Project summary	Measurable Indicators	Progress and Achievements
<p>Impact:</p> <p>Improved stewardship of Pitcairn’s EEZ will contribute to the Millenium Development Goals (MDGs) and global targets for marine protection set by the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES) and the Convention on the Conservation of Migratory Species (CMS), as well as related biodiversity targets, achieved through an effective management programme of marine biodiversity in the Pitcairn Islands that integrates a sustainable future and economic opportunities for the local community.</p>		<p>The establishment of the Pitcairn Marine Reserve (99% no-take zone) in Sep 2016, with fisheries regulations for the Coastal Conservation Areas will protect the marine biodiversity of the Pitcairn Islands. Tourism activities, such as whale-watching, sport fishing and diving will increase HH income for the island community.</p>
<p>Outcome</p> <p>Establishment of a fully-operational fisheries and marine management plan that is ecosystem-based and sustainable, to enhance experience and income from tourism development, and which is crucial to providing a secure future for the economic benefit of the Island community and protection of the unique marine biodiversity of the Pitcairn Islands.</p>	<ul style="list-style-type: none"> - International fisheries advisory committee established by 2014. - Fisheries Management Plan operational by 2016 - Establish baselines and achieve increasing trends in presence and abundance of priority species of fish and invertebrates at selected sites (MDG 7.4 Proportion of commercial fish stocks within safe biological limits) over the lifetime of the project. Baselines to be determined in 2013/14. - At least 30% of the Pitcairn EEZ fully protected (Marine Reserves Coalition and CPAWS guidelines. Baseline is 0%) (MDG 7.6 Proportion of marine areas protected). - Establish baselines and achieve increasing trends in populations of 	<ul style="list-style-type: none"> - In place. Advisory team comprising staff from the Darwin partners (King’s College London, SPC, ZSL, Sea-Scope, NRD Government of Pitcairn) and Hugh Govan, Independent Fisheries Advisor and Pacific ocean expert. - Fisheries Management Plan published and approved by the NRD, Government of Pitcairn. Expected to be operational in 2017. - Monthly fish catch records have been collected since Sep 2015. Summary reports produced on an annual basis. - Circa 99% of the Pitcairn EEZ (840,000 km²) is fully protected (no-take zone). The Pitcairn Marine Reserve was established by the UK Government in Sep 2016. - Baseline populations of several fish species of commercial value has been surveyed using Baited Remote Underwater Video systems (BRUVs). A database of species have

	<p>at least 5 flagship IUCN red list species within Pitcairn EEZ (MDG 7.7 Proportion of species threatened with extinction).</p> <ul style="list-style-type: none"> - Establish baseline and achieve 15% increase in income in 80% of households from new markets, trade and sale of fish and/or sustainable nature-based tourism products to island visitors, cruise ships, passing traffic and to French Polynesia by 2016 (baseline US\$760 mean income per annum over 20 households) (MDG 8.9 Building trade capacity) - 50% of tourists visiting Pitcairn have a higher awareness of and engagement with marine biodiversity (prior/post project initiation). - Pitcairn tourism is sustainable. 	<p>been established for Pitcairn Island and Henderson (more surveys are needed here as for the other islands).</p> <ul style="list-style-type: none"> - A Government-funded Marine Tourism payment scheme was established in 2016. We have been able to estimate that payments under this scheme could be up to NZ\$480 per annum per boat-owner, which represents a increase of HH income from Government sources of between 16% up to 40%. There are around 7 households from a total of 20 owning their own boat (see section 6). - We have produced and published 1,100 leaflets on the natural history and marine environment of the Pitcairn Islands (nature trails), together with public display boards and a media interpretation centre in the Island museum. Over 300 leaflets have already been distributed to visiting tourists since Feb 2017. 70% of the tourists on-island have taken one or more of the nature trails established in collaboration with the Tourism Department.
<p>Output 1 Fisheries research reports and appraisals. Developing a collection of GIS maps (atlas) of fisheries zones, marine habitats and ecosystems.</p>	<p>1.1 Assessment report incorporating fisheries and socio-economic reviews</p> <p>1.2 Minimum of 5 individual fisheries species assessed using an ecosystems-based approach in a local context.</p> <p>1.3 80% fishing grounds mapped for Pitcairn Island and 40 Mile Reef.</p>	<ul style="list-style-type: none"> - Completed. 7 Individual Species ecology and fisheries sheets produced. - Not completed. Indicator too ambitious given limited budget and tricky logistics (no access to survey boats or sonar equipment).
<p>Activity 1.1 In depth review of scientific and fisheries literature relating to Pitcairn species of commercial value.</p>	<ul style="list-style-type: none"> - Scientific Publications, see Annex 5: 	

<p>Activity 1.2. Conduct habitat surveys and determine the occurrence and spatial distribution of commercially valued species</p> <p>Activity 1.3. Conduct biodiversity surveys using standardised approaches</p>	<ul style="list-style-type: none"> - see publications, annex 5. - Fish catch recording forms include all reef and pelagic fish species likely to be caught from Pitcairn’s nearshore waters, as well as the three species of lobster. In addition, data on bait species (typically Sally Lightfoot crabs and rock octopus) were also collected. A total of 30 species of fishes were caught and reported during the 12 month period from Sep. 2014 to Aug. 2015 (see section 3.1). - Seven fisheries species ecology and fisheries description reports produced, in agreement with Fisheries Officer: 3 reef fish species (faafaia/lyre-tail grouper, red snapper/black-tipped grouper, nanwe/Pacific chub); 1 pelagic fish species (kuta/wahoo); 2 spiny lobster species (black/Easter Island lobster & red/pronghorn lobster); & 1 rock lobster species (slipper) (see section 3.1). - Five BRUV frames were welded together on island, by the island’s engineer to a specific brief, in May 2014. Camera bars (supporting two removeable GoPro cameras angled in such a way to focus on the bait envelope held approx. 1m distance from the camera bar) were shipped to the island from Australia and installed on the frames. 42 deployments of the frames were made, of which 39 produced useable results. A total of 88 species of fishes were recorded from a range of sites, depths and habitats. For full details of this research survey see Duffy, 2014, available from: https://www.iccs.org.uk/wp-content/uploads/2011/.../Duffy_Henry_ConSci_2014.pdf - Unable to complete habitat surveys due to the non-availability of suitable water-craft and personnel to operate it for this purpose at Pitcairn; and our inability to obtain suitable multibeam sonar equipment within budget/timescale; and the tricky logistics of transporting said equipment to/from Pitcairn. 	
<p>Output 2. Insert agreed Output</p> <p>Operational quay-side weighing station and catch logbook</p>	<p>Insert agreed Output level indicators</p> <p>2.1 Commercial grade weight scales installed and used at the Landing (Bounty Bay) by 2014.</p> <p>2.2 Methodology adopted for the collection of data and information by 2014.</p>	<ul style="list-style-type: none"> - Good, steady progress on agreeing methodology for this over several visits to the island. Indicators found to be appropriate.
<p>Activity 2.1. Installation of a fish weight station facility at the Landing (Bounty Bay)</p>		<ul style="list-style-type: none"> - Soon after our first visit it was realised that commercial grade weigh scales would be inappropriate for use by fishers. We considered various alternatives and concluded that small, portable, hand-held scales could work best. Three such scales were supplied to the Fisheries Officer for trialling with fishers in September 2015. We also considered an alternative to measuring the actual weight of individual fishes would be to measure their length (from which it is possible to deduce their weight). However, both of these options required additional effort to be expended by the fishers themselves, and this went against their overall enjoyment of fishing as a pastime. It was also too onerous for the Fisheries

	Officer to acquire these data herself. Thus measuring the weights of fishes has not taken place.		
<p>Activity 2.2. Elaborate a fish catch monitoring plan and protocol for Pitcairn fishers</p>	<p>- Two similar methods of acquiring fish catch data were trialled. The onus of the first was on the individual fisher who was asked to complete a fish catch recording form themselves for each fishing event they undertook. The onus of the second method was on the Fisheries Officer who was required to contact fishers after they had been out fishing to find out what they had caught and to complete a fish catch recording form herself. Both methods are still being used. We have found that if completing paperwork is a chore, then this will detract from a fisher's enjoyment of a fishing event and they will be reluctant to return details of their catches. We have been keen to ensure the return of catch data is voluntary, requiring the project team to persuade fishers of the usefulness of the catch data. The fish catch recording form was appropriate and was in use by 2014. Some difficulty was experienced matching local names of fishes with English/scientific names.</p> <p>- To assist with encouraging take-up of fish catch recording, a web-based database application (allowing a fisher to record their own catches, but which would also provide collective data to the project) was designed, shown to key individuals and widely welcomed. However, lack of time and resources has meant this has been put 'on hold'. It is encouraging to note that mobile phone coverage for the community may be installed in the near future, which may resurrect this idea.</p>		
<p>Output 3. Fishers trained in, and utilising, fisheries monitoring and management protocols. Household economic action plans.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; padding: 5px;"> <p>At least 2 on-island training workshops on management and legislation of natural resource management attended by 90% of island fishers</p> <p>Community Fishers' organisation established (legally recognised by Pitcairn Government)</p> <p>Fisheries adaptation and management protocols in place</p> <p>10-20% increase of (active fishers) household income from boat-based fishing and tourism</p> </td> <td style="padding: 5px;"> <p>Both public meetings (centred on fisheries ecology and management issues) and training workshops held, attended by all fishers (or representatives of fishers' households). Indicator appropriate (see section 3.1).</p> <p>- Progress on this continuous throughout second half of project but still to be successfully concluded. Indicator appropriate. A formal Pitcairn Fishers Association MOA was developed and proposed to the PIC, but this was rejected in favour of a more informal Fishers Committee to manage fisheries resources (revised and included in the Fisheries Management Plan).</p> <p>- Protocols in place and enacted within new legislation. Indicator appropriate.</p> <p>- Difficult to assess with any accuracy but early indications suggest that the Pitcairn Government-funded Marine Tourism payment Scheme is increasing HH Government income for the seven Island boat owners of between 16 up to 40% (see section 4.5).</p> </td> </tr> </table>	<p>At least 2 on-island training workshops on management and legislation of natural resource management attended by 90% of island fishers</p> <p>Community Fishers' organisation established (legally recognised by Pitcairn Government)</p> <p>Fisheries adaptation and management protocols in place</p> <p>10-20% increase of (active fishers) household income from boat-based fishing and tourism</p>	<p>Both public meetings (centred on fisheries ecology and management issues) and training workshops held, attended by all fishers (or representatives of fishers' households). Indicator appropriate (see section 3.1).</p> <p>- Progress on this continuous throughout second half of project but still to be successfully concluded. Indicator appropriate. A formal Pitcairn Fishers Association MOA was developed and proposed to the PIC, but this was rejected in favour of a more informal Fishers Committee to manage fisheries resources (revised and included in the Fisheries Management Plan).</p> <p>- Protocols in place and enacted within new legislation. Indicator appropriate.</p> <p>- Difficult to assess with any accuracy but early indications suggest that the Pitcairn Government-funded Marine Tourism payment Scheme is increasing HH Government income for the seven Island boat owners of between 16 up to 40% (see section 4.5).</p>
<p>At least 2 on-island training workshops on management and legislation of natural resource management attended by 90% of island fishers</p> <p>Community Fishers' organisation established (legally recognised by Pitcairn Government)</p> <p>Fisheries adaptation and management protocols in place</p> <p>10-20% increase of (active fishers) household income from boat-based fishing and tourism</p>	<p>Both public meetings (centred on fisheries ecology and management issues) and training workshops held, attended by all fishers (or representatives of fishers' households). Indicator appropriate (see section 3.1).</p> <p>- Progress on this continuous throughout second half of project but still to be successfully concluded. Indicator appropriate. A formal Pitcairn Fishers Association MOA was developed and proposed to the PIC, but this was rejected in favour of a more informal Fishers Committee to manage fisheries resources (revised and included in the Fisheries Management Plan).</p> <p>- Protocols in place and enacted within new legislation. Indicator appropriate.</p> <p>- Difficult to assess with any accuracy but early indications suggest that the Pitcairn Government-funded Marine Tourism payment Scheme is increasing HH Government income for the seven Island boat owners of between 16 up to 40% (see section 4.5).</p>		
<p>Activity 3.1 Development of standardised methods</p>	<p>See Activity 2.2 above.</p> <p>- Methods for recording sightings of humpback whales were also agreed in early 2014, leading to a very successful citizen science project involving most of the small community. Whale sightings data for Pitcairn have been compiled for 3 consecutive years (2014 - 2016), and for 1 year (2015) for Henderson. Publication submitted (Irving et al., 2017), see Annex 5.</p>		

<p>Activity 3.2 Training workshops</p>	<p>- A number of training workshops have been held with fishers throughout the lifetime of the project. Opportunities to arrange these have been taken whenever UK project staff have visited Pitcairn. Initial training consisted of ecological workshops focussing on species of interest. Next, recording methods and protocols were agreed with fishers, with the Fisheries Officer being assigned the task of 'chasing' catch returns. The following year, the results of the first 12 months of catch data were presented to fishers. Fisheries management training was delivered in 2016 (see section 3.1 and Activity 4.1, below). Fish catch results (in the form of print-out graphs with explanations) have also been regularly displayed on the public notice-board in Adamstown.</p>
<p>Activity 3.3 Household-level (fishers) economic development action plans</p>	<p>- An assessment of the economic status of the Pitcairn Islands and future development opportunities was commissioned by the UK Government in 2014 (Pitcairn Economic Report, 2014, available from: http://www.government.pn/Pitcairn%20Islands%20Economic%20Report%20-%20Final%20Report.pdf)</p> <p>- A Pitcairn Government-funded Marine Tourism payment scheme was initiated in 2016, which is undergoing trials to support sustainable economic opportunities of the marine reserve designation (see section 4.5).</p>
<p>Output 4. Establishment of a legally-binding fisheries management plan</p>	<p>Indicator 4.1: Status of legal, policy and institutional reforms and collaborative agreements for improved management of fisheries Indicator 4.2: Local codes, laws and regulations compatible with sustainable fisheries and marine resources conservation and extraction</p> <p>- On 14 September 2016, the UK Foreign Office Minister, Sir Alan Duncan, announced at the 'Our Ocean' Conference in the USA that the UK government would be investing £20 million to double the area of ocean under marine protection around the UK Overseas Territories. This commitment included the final establishment of the marine protected area around the Pitcairn Islands that the UK Government proposed in 2015, which permanently closes more than 99% of the 840,000 square kilometer maritime zone around the Islands – 40,000 square kilometres more than originally planned.</p> <p>The 'Pitcairn Islands Marine Protected Area Ordinance 2016' was drafted and became legal in August 2016 (prepared by the Attorney-General, Government of Pitcairn, with contributions from Terry Dawson and Robert Irving as well as the Pitcairn Island Council, in consultation with the island community). This establishes the legal definition and framework for subsequent adoption of the Pitcairn Island Fisheries Management Plan (Available online from: http://www.government.pn/Laws/2016-09-13%20Pitcairn%20Islands%20Marine%20Protected%20Area%20Ordinance%202016.pdf)</p>
<p>Activity 4.1 Consultation workshops for fisheries management plan</p>	<p>Following earlier workshops (in 2014 and 2015) on fisheries ecology and management, a community workshop was held on Pitcairn Island (22-26 May 2016) hosted by Hugh Govan and Caroline Vieux (SPC) through the Integre/Darwin collaboration entitled 'Participatory marine resource management planning' (14 islanders attended, Report available on request). Presentations were made on coastal management plans - experiences from around the Pacific, and training was provided on drafting a coastal fisheries management plan for Pitcairn.</p>
<p>Activity 4.2 Development of fisheries management options</p>	<p>The workshop on 22-26 May 2016 was followed up by Terry Dawson, who visited Pitcairn Island in Aug-Sep 2016 (meetings with the Natural Resources Division – Michelle</p>

		Christian and Sue O'keefe - and discussions with individual fishers) to outline fisheries management options. The final decision from PIC was to abandon the creation of a formal Fishers Association, and instead to form a Fishers Committee for managing fisheries resources with PIC establishing regulations at the local level (by-laws).
Activity 4.3 Preparation of fisheries management plan		A Pitcairn Island Fisheries Management Plan for the Coastal Conservation Areas - designated fishing zones of the Pitcairn Islands EEZ was developed and following several revisions was published in February 2017 (Dawson <i>et al.</i> , 2017, <i>Fisheries Management Plan for the Pitcairn Islands Coastal Conservation Areas</i> , Draft V4.2, March 2017, 19pp.).
Activity 4.4 Endorsement of fisheries management plan		The Pitcairn Island Fisheries Management Plan has been formally reviewed and approved by the Environmental, Conservation & Natural Resources Division, Government of Pitcairn. Consultation with the island fishers will take place in Nov 2017 (delayed due to reasons provided elsewhere in this report, see section 6).
Output 5. Dissemination of information to stakeholders, scientific/conservation community and raising awareness within the general public and international media	<i>'50% Tourists visiting Pitcairn have a higher awareness of, and engagement with marine biodiversity (prior/post project initiation)'</i>	<ul style="list-style-type: none"> Presented a talk and poster on the project (and focused on the involvement of UK schools through ZSL London Zoo) at the EZE 2015 (European Zoo Educators) conference (~160 delegates) and EMSEA 2016 conference (European Marine Science Educators Association) Blog of the 2014 visit and MPA information available on the ZSL website for general public and publicised to schools whilst visiting ZSL LZ Ana Pinto featured in ZSL's Wildabout magazine Spring 2017 issue: http://viewer.zmags.com/publication/b0aadfea#/b0aadfea/14 No. of hits for blog page- page views:>2140 unique page views: >1395
	<i>'Pitcairn tourism is sustainable'</i>	
Activity 5.1 Consultation workshops on outreach materials and plan		Consultation with tourism department and with ZSL's interpretation team complete- production of leaflets, information boards, video and digital interpretation for museum (see separate Pitcairn Island Tourism Development Plan 2017).
Activity 5.3 Interpretation and outreach plan for the museum		Content for digital interpretation for the PI museum being finalised. This will feature in a media screen showcasing images and information regarding the natural environment of the Islands as well as a short video featuring scientific project collaborators covering various aspects of the marine environment of the Pitcairn Islands: the uniqueness and importance of the islands; fisheries management; humpback whales and the Marine Protected Area.
Activity 5.5 Installation of interpretive centre in museum		Media screen for digital interpretation for the PI Museum will be delivered in the next supply ship (Aug-Sept 2017) and installed in the Museum.
Activity 5.6 Consultation with tourism companies and community on enhanced tourism package		Consultation with community and tourism department complete and has fed back into development plan for the enhancement of the tourism experience. A final tourism report has been produced with agreements on the Pitcairn museum media interpretation and revised layout, description of the new nature trails and future plans for tourism development (SUPP 2).

Activity 5.7 Production of tourist outreach pack, including film	See section 3.2. (outreach materials- leaflets, information boards and film)
	No. leaflets= 1,100 1 x large board featuring map of pitcairn with highlighted routes for walking 1x large board featuring the MPA and other marine conservation information (of all 4 islands) 1x video featuring Prf. Terry Dawson, Dr Heather Koldewey, Robert Irving and Ana Pinto 1 x media screen ordered for Museum, to feature digital interpretation (natural history) and video

Annex 3 Standard Measures

We use these figures as part of our evaluation of the wider impact of the Darwin Initiative programme. Projects are not evaluated according to quantity. That is – projects that report few standard measures are not seen as being of poorer quality than those projects which can report against multiple standard measures.

Please quantify and briefly describe all project standard measures using the coding and format of the Darwin Initiative Standard Measures. Download the updated list explaining standard measures from <http://darwin.defra.gov.uk/resources/reporting/>. If any sections are not relevant, please leave blank.

Code	Description	Total	Nationality	Gender	Title or Focus	Language	Comments
Training Measures							
2	Number of Masters qualifications obtained	3	UK x 2 French x1	2 x M 1 x F	Henry Duffy MSc (2014); Kirsty Grey MSc (2016); James Nikitine MSc (2016).	English	
5	Number of people receiving other forms of long-term (>1yr) training not leading to formal qualification (e.g., not categories 1-4 above)	1	Pitcairn	F	Marine/Fisheries Officer - Sue O'keffe		
6a	Number of people receiving other forms of short-term education/training (e.g., not categories 1-5 above)	20	Pitcairn	Mixed	Sustainable fisheries management training workshops	English	
6a	Number of people receiving other forms of short-term education/training (e.g., not categories 1-5 above)	2	Pitcairn	2 x F	Tourism training (SPC workshop Tahiti, Feb 2015)	English / French	
6b	Number of training weeks not leading to formal qualification	0.5			Sustainable fisheries		

					management training		
7	Number of types of training materials produced for use by host country(s) (describe training materials)	7	UK	1 x M	Species Identification & Ecology Notes	English	
Research Measures		Total	Nationality	Gender	Title	Language	Comments/ Weblink if available
9	Number of species/habitat management plans (or action plans) produced for Governments, public authorities or other implementing agencies in the host country (ies)	2	New Zealand/Pitcairn/UK	Mixed		English	Participatory process
10	Number of formal documents produced to assist work related to species identification, classification and recording.	2	UK	1 x M	Spiny Lobster Identification notes	English	With NRD, Government of Pitcairn
11a	Number of papers published or accepted for publication in peer reviewed journals	5	UK/French/Indonesia	Mixed	Annexe 5	English	
11b	Number of papers published or accepted for publication elsewhere	9	UK / Pitcairn	Mixed	Annexe 5	English	
12a	Number of computer-based databases established (containing species/generic information) and handed over to host country	4	UK/Pitcairn	M & F	-Pitcairn BRUV species lists (xls database) - Henderson BRUV Species lists (xls database) - Fish catch returns records, Sep14-Aug 15 (xls database) -Fish catch returns records, Sep15-Aug16 (xls database)	English	

Dissemination Measures		Total	Nationality	Gender	Theme	Language	Comments
14b	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	5	UK	Mixed		English	

Physical Measures		Total	Comments
20	Estimated value (£s) of physical assets handed over to host country(s)		Diving and laboratory equipment, compressor and freezers
21	Number of permanent educational, training, research facilities or organisation established	1	Small laboratory facility set up in the Natural Resources Division building (freezers, scientific equipment). Dive store, with compressor, tanks and scuba equipment.
22	Number of permanent field plots established	0	

Financial Measures		Total	Nationality	Gender	Theme	Language	Comments
23	Value of additional resources raised from other sources (e.g., in addition to Darwin funding) for project work		EU-funding / UK partners	Mixed		English and French	

Annex 4 Aichi Targets

Please note which of the Aichi targets your project has contributed to.

Please record only the **main targets** to which your project has contributed. It is recognised that most Darwin projects make a smaller contribution to many other targets in their work. You will not be evaluated more favourably if you tick multiple boxes.

	Aichi Target	Tick if applicable to your project
1	People are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	✓
2	Biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	✓
3	Incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.	✓
4	Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.	✓
5	The rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	✓
6	All fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.	✓
7	Areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	
8	Pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.	
9	Invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.	✓
10	The multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.	
11	At least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.	✓
12	The extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.	

13	The genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.	
14	Ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	
15	Ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.	
16	The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.	
17	Each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.	
18	The traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.	✓
19	Knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.	✓
20	The mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.	

Annex 5 Publications

Provide full details of all publications and material that can be publicly accessed, e.g. title, name of publisher, contact details. Mark (*) all publications and other material that you have included with this report

Type *	Detail (title, author, year)	Nationality of lead author	Nationality of institution of lead author	Gender of lead author	Publishers (name, city)	Available from (e.g. web link, contact address etc)
Journal	An amphidromic prawn, <i>Macrobrachium latimanus</i> (von Martens, 1868) (Decapoda: Palaemonidae), discovered on Pitcairn, a remote island in the southeastern Pacific. Irving, R.A., Dawson, T.P. and Wowor, D., 2017	UK	UK	Male	<i>Journal of Crustacean Biology</i> , JCB-1821, in press.	https://academic.oup.com/jcb
Journal	Significant range extensions for two fish species at Pitcairn Island, South Pacific. Duffy HJ, Letessier TB & Irving, RA. 2017	UK	UK	Male	<i>Journal of Fish Biology</i> , in press.	http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1095-8649
Report	<i>Regional ecosystem profile – Pitcairn Islands, Pacific Region</i> . Avagliano, E., Artzner, F., Jean Kape, J. & Bocquet A. (Eds)(T. Dawson and R. Irving, contributing authors), 2016	French	French Polynesia	Female	EU Outermost Regions and Overseas Countries and Territories, BEST, Service contract 07.0307.2013/666363/SER/B2, European Commission, 60p.	http://ec.europa.eu/environment/nature/biodiversity/best/pdf/best-ecosystem_profile_pitcairn_2016.pdf
Journal	The UK Government agrees to create the world's largest marine reserve around the Pitcairn	UK	UK	Male	<i>Pacific Conservation Biology</i> 21 (2), pages 108-109.	http://dx.doi.org/10.1071/PC14916

	Islands, a UK Overseas Territory in the South Pacific Dawson, T.P., 2015					
Journal	The Pitcairn Islands – The case for protecting their marine environment Irving, R.A., Dawson, T.P. and Koldewey, H., 2015	UK	UK	Male	<i>Pacific Conservation Biology</i> 21 (2), pages 110-112.	http://dx.doi.org/10.1071/PC14916)
Conference Proceedings	Pitcairn Islands: Integrating Research, Conservation Monitoring, Management and Sustainable Development Dawson, T.P., Christian, J. and Christian, M., 2015	UK	UK	Male	<i>Sustaining Partnerships: a conference on conservation and sustainability in UK Overseas Territories, Crown Dependencies and other small island communities</i> , (ed. by M. Pienkowski & C. Wensink), pages 189-192.	UKOTCF: http://www.ukotcf.org/confs/gibraltar2015.htm#proc
Conference Proceedings	A sustainable marine and fisheries management plan for the Pitcairn Islands Dawson, T.P., Irving, R. and Koldewey, H. 2015	UK	UK	Male	<i>Sustaining Partnerships: a conference on conservation and sustainability in UK Overseas Territories, Crown Dependencies and other small island communities</i> , (ed. by M. Pienkowski & C. Wensink), pages 232-233.	UKOTCF: http://www.ukotcf.org/confs/gibraltar2015.htm#proc
Newsletter	The humpbacks are here! Irving, R., 2014	UK	UK	Male	<i>Dem Tull</i> , Vol 10, No. 1, March 2016, pages 4-5.	http://www.demtullpitcairn.com/
Newsletter	Darwin project starts to reveal some fishy business Irving, R., 2016	UK	UK	Male	The Pitcairn <i>Miscellany</i> , Jan. 2016.	http://www.miscellany.pn/
Newsletter	The Darwin Project Kari Young, 2014	Pitcairn	Pitcairn	Female	<i>Dem Tull</i> , Vol 8, No. 6, June 2014	www.demtullpitcairn.com/downloads.html
Newsletter	The Darwin Initiative Project Henry Duffy, 2014	UK	UK	Male	The Pitcairn <i>Miscellany</i> , June 2014	http://www.miscellany.pn/
Newsletter	The Darwin Initiative Project Ana Pinto & Henry Duffy, 2014	UK	UK	Female	Pitcairn Islands Tourism Quarterly, Vol III, Issue 2, Oct 2014	www.visitpitcairn.pn/news/tourism_quarterly/index.html

Newsletter	Initial findings of underwater video of reef fishes at Pitcairn Robert Irving, 2014	UK	UK	Male	Darwin Newsletter Issue August 2014- UK Overseas Territories	www.darwininitiative.org.uk/publications/newsletter
Newspaper	Dundee University helps create World's largest marine nature reserve Stefan Morkis, 2015	UK	UK	Male	The Courier newspaper, 18 th March 2015	http://www.thecourier.co.uk/news/local/dundee/dundee-university-helps-create-world-s-largest-marine-nature-reserve-1.852988
Magazine	Clear Blue Thinking Makes An Impact On Pitcairn Hilary McNally, 2015	UK	UK	Female	Contact, April 2015, pg 16-17	http://app.dundee.ac.uk/pressreleases/contact.html
Booklet	'Protecting International waters' Terence Dawson, 2017.	UK	UK	Male	<i>Research Impact: Case Studies from around the world</i> (Randa Kachef, ed.), Department of Geography, King's College London, pg 16-17, 2017.	Available from: Department of Geography, King's College London
Conference Proceedings	'Developing a fisheries management plan for the Pitcairn Islands - rightsizing governance for small communities' Dawson, T.P., Irving, R.A. and Koldewey, H., 2017	UK	UK	Male	Marine Protected Areas. Science, Policy & Management Conference, 15-17 May 2017, Poole, UK.	http://www.pooleharbourstudygroup.org.uk/wp-content/uploads/2017/05/02-05-17-Programme.pdf
Conference Proceedings	'Locally Managed Marine Areas (LMMAs) – who benefits? An exploration of ecosystem services delivery through the lens of the fishing community on Pitcairn Island' Dawson, T.P., Irving, R.A. and Koldewey, H., 2017	UK	UK	Male	Joint BES and BESS Symposium 2017: Advances in Biodiversity & Ecosystem Services, Cardiff, UK, 24-26 April 2017.	British Ecological Society http://www.britishecologicalsociety.org/wp-content/uploads/2016/11/Joint-BES-BESS-Symposium-Programme.pdf
Radio programme	<i>Britain Rules the Waves</i> , Terence P. Dawson interview on the proposed Pitcairn Islands Marine Reserve, broadcast on 15 and 16 Sept 2015.	UK	UK	Male	BBC Radio 4 programme 'Costing the Earth'	Podcast downloadable at: http://www.bbc.co.uk/programmes/b069rvb8

Annex 6 Darwin Contacts

To assist us with future evaluation work and feedback on your report, please provide details for the main project contacts below. Please add new sections to the table if you are able to provide contact information for more people than there are sections below.

Ref No	20-006
Project Title	A sustainable marine and fisheries management plan for the Pitcairn islands
Project Leader Details	
Name	Prof. Terence Peter Dawson
Role within Darwin Project	Project Leader
Address	Department of Geography, King's College London, Strand, London WC2R
Phone	
Fax/Skype	
Email	
Partner 1	
Name	Mrs Michele Christian
Organisation	Environmental, Conservation & Natural Resources, Government of Pitcairn Island
Role within Darwin Project	Local coordinator/Liaison with Pitcairn Island Council
Address	Adamstown, Pitcairn Island
Fax/Skype	
Email	
Partner 2	
Name	Dr Heather Koldewey
Organisation	Zoological Society of London
Role within Darwin Project	Liaison with the Marine Reserves Coalition, member of the FCO 'Blue Belt Working Group'
Address	Regent's Park, London NW1 4RY
Fax/Skype	
Email	
Partner 3	
Name	Mr Robert Irving
Organisation	Sea-Scope Marine Environmental Consultants
Role within Darwin Project	Scientific assessments, fisheries analysis
Address	53 Northmoor Road, Dulverton, Somerset TA22 9PW
Fax/Skype	
Email	