



Darwin Initiative Main/Post/D+ Project Half Year Report (due 31 October 2016)

Project Ref No	DPLUS053
Project Title	Project Pinnamin: conserving northern rockhopper penguins on Tristan da Cunha
Country(ies)/Territory(ies)	Tristan da Cunha
Lead Organisation	Royal Society for the Protection of Birds
Partner(s)	Tristan da Cunha Conservation Department, British Antarctic Survey, Royal Zoological Society of Scotland, South African Department of Environmental Affairs
Project Leader	Dr Alex Bond
Report date and number (e.g., HYR3)	HYR1
Project website/ Twitter/ Blog/ Instagram etc	http://www.rzss.org.uk/conservation/our-projects/project-search/field-work/project-pinnamin-conserving-northern-rockhopper-penguins-on-tristan-da-cunha/
Funder (DFID/Defra)	Defra

1. Outline progress over the last 6 months (April – Sept) against the agreed baseline timetable for the project (if your project has started less than 6 months ago, please report on the period since start up to end September).

Output 1: organize fieldwork logistics & initiate and maintain a monitoring programme

Population sizes were estimated for colonies on Nightingale Island (Sergeant Major, and colonies A, B, C and D) and on Inaccessible (Salt Beach and Blenden Hall). The method used was to map the colony's perimeter using a GPS to estimate its area and counts along a sample of 20 m long transects to estimate density. These data will be used to calculate population size with confidence limits and compared with previous surveys to determine trends.

Two Biomark PIT tag readers were set up on the main penguin "highways" between the sea and the colonies at Sergeant Major. These read the unique ID numbers of tiny microchips and store this number along with the date and time of detection. We equipped 100 adult penguins with PIT tags by the end of September, and a further 200 adults and 100 chicks will be equipped before the end of the project. Patterns of presence or absence of individuals across years will allow the estimation of age-specific rates of survival and breeding propensity, whilst patterns of crossings within years may allow estimation of breeding success. To test the latter, we PIT tagged birds at 50 marked nests whose fates will be monitored through the season, allowing differences in crossing patterns for pairs with active or failed nests to be determined. Of these, 30 nests were within the field-of-view of one of eight time-lapse cameras that took photos every hour, and 20 nests had both members of the pair equipped with GLS tags. These data will be used to test the likelihood of the PIT reader detecting a crossing (with crossings being independently identified from changes in nest attendance in the camera images or on the start and end of foraging trips from the wet-dry logger of the GLS tag). A further 100 nests were marked in Sergeant Major and 50 in colony C that are being visited every 4 days to estimate breeding success for a larger sample of nests. The PIT tag system will remain operational on Nightingale in the long term and will hopefully collect high quality, data for a decade or more with minimal effort.

Output 2: egg harvesting experiment fieldwork

Following discussion with the Tristan Conservation Department and Tristan Government, it was felt that this output could lead to an increased demand for the resumption of harvesting (which has been suspended since 2011), so this was not completed.

Output 3: collection of tracking data

Ten incubating males in the Sergeant Major colony were equipped with Pathtrack GPS tags prior to their long (~3 week) incubation stage foraging trip. These collected accurate (<50m) fixes at 15 minute intervals based on triangulation from the GPS satellite constellation. All of the tags were recovered. These were redeployed on 10 incubating females and at the time of writing four of these had been recovered. Deployments of GPS tags are now being conducted and these will continue throughout the chick rearing period with the aim of tracking at least 30 birds before the end of the field season. 10 chick-rearing birds have been equipped with GPS tags at Salt Beach on Inaccessible Island. These will download all their data to a static base station so that it is only necessary to recover this unit rather than the tags: essential given difficulties in accessing and staying at Salt Beach to recapture all of the birds. We also deployed 40 miniature Migrate Tech GLS tags that log light levels, water temperature and saltwater immersion. These data can be used to estimate locations to c. 150km accuracy based on day length, local time of mid-day and sea-surface temperature maps. These will be recovered in September 2017 and will describe long-distance overwinter movements. These data will reveal the seasonal at-sea distribution, marine habitat preference, overlap with potential threats and will help inform the design of marine spatial management planning within the Tristan EEZ.

Output 4: train TC staff in new fieldwork methods

The Tristan Conservation staff were trained in use of the tracking and PIT reading equipment and set up the solar panels and housings for the PIT reader. They also assisted with the survey of the colonies on Nightingale. The Tristanians also completed construction of the interior of the fieldwork accommodation. Unfortunately, poor weather prevented the team getting ashore at Edinburgh of the Seven Seas to talk to key staff at the Conservation and Fisheries Departments and members of the wider community.

Output 5: no planned actions during this reporting period.

2a. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

The only challenge was relating to Output 2. The harvest of penguin eggs has been suspended since 2011, and after considerable discussion with the Tristan Conservation Department, Tristan Government, we believe that this piece of work could lead to an increased demand for penguin eggs compared to the present, and that efforts should focus on policy and community engagement to further safeguard this globally endangered species.

2b. Have any of these issues been discussed with LTS International and if so, have changes been made to the original agreement?

Discussed with LTS:	Yes/No
Formal change request submitted:	Yes/No
Received confirmation of change acceptance	Yes/No NA

3a. Do you currently expect to have any significant (e.g., more than £5,000) underspend in your budget for this year?

Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Estimated underspend: £
3b. If yes, then you need to consider your project budget needs carefully. Please remember that any funds agreed for this financial year are only available to the project in this financial year. If you anticipate a significant underspend because of justifiable changes within the project please submit a rebudget Change Request as soon as possible. There is no guarantee that Defra will agree a rebudget so please ensure you have enough time to make appropriate changes if necessary.	

4. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures?
We are waiting to assess the financial impacts, if any, of removing Output 2 from the project, and will submit a change request before March 2017.

If you were asked to provide a response to this year's annual report review with your next half year report, please attach your response to this document.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also be raised with LTS International through a Change Request.**

Please send your **completed report by email** to Eilidh Young at Darwin-Projects@ltsi.co.uk . The report should be between 2-3 pages maximum. **Please state your project reference number in the header of your email message e.g., Subject: 22-035 Darwin Half Year Report**