



Submit by Monday 30 January 2012

**DARWIN INITIATIVE APPLICATION FOR UK OVERSEAS TERRITORIES CHALLENGE FUND:
Round 18**

Please read the Guidance Notes before completing this form.

1. Name, postal address and contact details of applicant organisation and main individual: (notification of results will be by email to this individual) British Antarctic Survey, NERC, Madingley Road, Cambridge, CB3 0ET David K A Barnes E-mail address: _____ Phone: _____	
2. Working title/name of the proposed resulting Darwin project (not exceeding 10 words): South Atlantic wilderness; assessment of Tristan da Cunha's seabed biodiversity	
3. Proposed UKOT(s) involved Tristan da Cunha	Other collaborating country/ies to be involved Falkland Islands

4. Principals in Challenge Fund work

(a) Please give the details of the main individuals who will be directly involved in the Challenge Fund award. Please copy the table if you require more space. CVs must be enclosed (max 1 page each).

Details	Main individual	2nd individual
Surname	Barnes	Hogg
Forename(s)	David	Oliver
Post held	Marine ecologist	Biogeographer
Department	Ecosystems (BAS)	Ecosystems (BAS)
Telephone		
Email		

(b) Partners relevant to the Challenge Fund award. Please provide details below, plus letters of support. (These letters should express intention to collaborate, contribution to the Challenge Fund activity, endorsement of the proposed partnership, and the expected contribution of the proposed resultant Darwin project to the conservation of the biodiversity of the relevant UKOT(s).) If you are a UKOT applicant, with no partner, you should provide a letter from your own organisation addressing these issues as appropriate.

Details	Main project partner	Other partners
Organisation	Tristan Conservation Department	Shallow Marine Surveys Group
Function/ Purpose of Organisation	Assessment of conservation priorities, local ecological knowledge and site/biota identification.	Shallow water biota specialists & biogeographic contextualisation
Name of Main Contact	Trevor Glass	Paul Brickle
Post Held	Head, Conservation Department	Head, SMSG

5. Concept note for the Challenge Fund award (max 500 words). This question concentrates on what the current application is for and should demonstrate the objectives of the award including

- what work will be carried out under the award;
- the location and duration of this work;
- what you expect to achieve from receiving the Challenge Fund award;
- details of how you will monitor and evaluate the work (reporting requirements for this fund are in the process of being finalised).

There are just two temperate, mid ocean islands archipelagos in the Southern hemisphere; little is known of seabed biodiversity below 40m at either. One of these is the UK overseas territory of Tristan da Cunha (TC) in the Atlantic. With no airport and low human impact, the perceived importance biodiversity is underlined by World Heritage Site status. A previous Darwin-funded project (DI post-project EIDP023) investigated the shallows but the state of most of its marine environment and native species (below diving depths) is virtually unknown. This proposal aims to create a team of experts who have previously worked together regionally (on Falkland and South Georgia), and adapt a successful protocol from the first polar Darwin project (18-019) to survey the region. The first half of the work would search, gather and check existing information and establish a new database. Linkage to globally open-access biodiversity databases (SCAR-MarBIN) would allow our work to be monitored and evaluated by experts across disciplines and enable us to produce the first across-depths article on the state of marine biodiversity at TC. We want to build a platform that strongly facilitates establishment of a meaningful system of protection for key areas of the seabed.

A video conference workshop would be held between partners to design and assess the different requirements and possibilities involved in a science cruise and how this can be best tailored to meet Convention on Biological Diversity guidelines and outreach. A key hypothesis of wider regional significance is that Tristan da Cunha's deep shelf biodiversity retains a signal of sub-Antarctic and Antarctic species from when the Polar Front migrated closer during glaciations. This is important because Tristan's biodiversity may help answer how biodiversity further south may cope with predicted warming. The field work would all be based around the continental shelf of the Tristan da Cunha archipelago (including Gough Island).

The Challenge Fund would support a dedicated member of staff to complete a meta-analysis of current knowledge, database this and analyse it to allow planning of 2 days sampling the most poorly known and potentially important areas and constructing an open-access website as a conservation and research tool. It would bring together Antarctic, subAntarctic and cool temperate experts to plan a seabed research cruise, tailoring it to TC priorities. Finally the award would divert the oceanographic research ship RRS James Clark Ross from its usual path of South Georgia-Falkland Islands-UK in March/April to pass TC and complete a first dedicated benthic survey below SCUBA-diving depths. This would 1) map seabed structure using multibeam sonar and biological echosounder, 2) look at water column physio-chemistry using CTD and water samples, 3) take discrete trawl, sledge and core benthic samples for morphological and genetic identification and 4) photo-characterise habitats with a camera-lander system. Ultimately this would lead to a proposal to provide a first full baseline survey of the region in the next Darwin Round, establish a major collaboration, plan for meeting Convention on Biological Diversity for the seabed and underpin our later, full Darwin application.

6. Concept note for resultant project (max 500 words). This question concentrates on the full Darwin application you intend to submit after the Challenge Fund award and should demonstrate:

- Expected purpose and outputs of the resultant Darwin project
- How the resultant Darwin project would meet a need (and how this need was defined) in the UKOTs and help the territory/ies in its implementation of any or all of the following Conventions: the Convention on Biological Diversity (CBD)/Convention on Migratory Species (CMS)/Convention on International Trade in Endangered Species (CITES).
- Brief evidence of the proposed partners' intentions to collaborate in the Challenge Fund award and an outline of their expected role in the resultant Darwin project: include brief details of contact to date and planned ongoing collaboration. This would normally be supported by a letter or email of support, which may present the majority of this evidence.
- The expected role of the UKOTs and other UK expertise in the resultant Darwin project

The purpose of the full Darwin project would be to provide enough contextualised biodiversity information to enable establishment of a network of Marine Protected Areas (MPAs). This would detail recommendations on the location, number and size of areas which would be needed to safeguard Tristan da Cunha's (TC) marine benthic resources and be fully underpinned by rigorous, defensible science. The outputs of the project, beside the recommendations for the MPAs (above) would be an outline of the value of different elements of this biodiversity (e.g. the location and vulnerability of hotspots of endemic species or assemblages which are likely to be particularly slow recovering from disturbance) and thus suggest management and monitoring protocols. We consider that establishment of what species, and threats to such species present, are fundamental to the Convention on Biological Diversity (CBD) as only then can planning, protection and monitoring be established with any realistic hope of minimising or reducing losses as required under the convention. We should also be able to establish whether any of TCs native species need to be considered under the Convention on Migratory Species (CMS) or Convention on International Trade in Endangered Species (CITES).

The project was first considered at British Antarctic Survey (BAS) in August 2011. Intention for BAS to collaborate with researchers at Shallow Marine Surveys Group, Falkland Islands (SMSG) first agreed on 24/10/11 at a meeting of David K A Barnes and Oliver Hogg (BAS) and Paul Brewin and Vlad Laptikovsky (SMSG). On 21/11/11 an approximate plan was established as was a firm intention to contact the relevant TC authorities. By 02/12/11 ability and timing possibilities of RRS James Clark Ross to undertake the work established. On 06/12/11 an email detailing the approximate project idea and track record of applicants was sent to Trevor Glass, head of TC conservation department. A reply was received the next day showing strong interest, '...please go ahead with the proposal you have my full backing'. A first draft of the proposal was drafted on 09/12/11 which was revised into a second draft (circulated to both partners on 15/12/11) to create the current application. Letters of support from both potential partners, the Tristan Conservation department and Shallow Marine surveys Group are included.

The expertise of two UK overseas territories (Tristan da Cunha and Falkland Islands) would be involved in this project, as well as expertise developed in previous OTs (South Georgia). The Tristan expertise will be crucial for insight into local conservation history, current priorities, resources and geographical knowledge (e.g. consideration of key seabird and commercial fishing grounds) for planning. Tristan expertise will also be very helpful in identification of current and past records of marine species, sources of identification aids and in advising on practicality of sampling in different areas. The Falkland team (SMSG) are experts in sampling the shallower environments of continental shelf waters in the South Atlantic and Southern Ocean as well as having a broad knowledge of shallow benthic species and being skilled at running benthic sample apparatus from vessels.

7. Justification of need for a Challenge Fund award. Please provide details of why alternative funding is not available from within your own organisation or from other sources. Will matched funding be provided? (max 250 words)

Elements of this project will be of great interest and use to Antarctic studies but the study region is not within British Antarctic Territory, nor Antarctica (by scientific or political definitions) and as such not funded by British Antarctic Survey core funding. However BAS will put up the majority of the matched funding as it fits both with our science mission and logistic support as the cruise can be undertaken when RRS James Clark Ross heads north from South Georgia at

the end of the austral summer with only a relatively minor deviation. A challenge Fund is perfect for this project as it promotes collaboration and knowledge exchange across UK and its overseas territories, builds on previous Darwin Initiative success, goes to a team with a good track record, helps develop a plan for meeting Convention on Biological Diversity requirements whilst simultaneously attempting to answer key questions about marine life response to climate change in one of the most sensitive parts of the planet. We know of no other sources of funding that are as appropriate. Matched funding; £53.5k

BAS 2 days ship time
 BAS 4% David Barnes time
 DCT 3% Trevor Glass time
 SMSG 6% Vlad Laptikovsky time
 SMSG 3% Paul Brickle time

8. Costs. Provide a detailed breakdown of costs to be funded by the Darwin Initiative.

Budget Line	Year 1	Year 2
Please complete those appropriate to your application – they may not all be relevant	Apr 2012 – Mar 2013	Apr 2013 – Mar 2014
Travel costs (airfares, sea travel, visas, travel documents)		
Subsistence costs (specify by individual and number of days)		
Overhead costs (including office costs)		
Operating costs (including conference/workshop/fieldwork costs)		
Capital costs (please specify)		
Other: Consultancy (please specify)		
Other (please specify)		
Salaries (specify by individual)		
Total per year	£15k	£10k
TOTAL REQUESTED FROM DARWIN INITIATIVE	£25k	

*1x UK-Falkland Islands outward; Ascension Island-UK return (BAS) 2x Ascension Island-Falkland Islands (SMSG)

9. Provide anticipated dates of award activity (including start and finish dates) and any milestones where relevant.

Date	Key Milestone
	START
01/07/12	Project initiation – set up Oliver Hogg
02/07/12-01/11/12	Oliver Hogg starts search on historic geo-referenced benthic species records for Tristan da Cunha.
01/09/12-01/01/13	Creation of database (linked to international open access databases) to display status of marine biodiversity knowledge on TdC continental shelf.
01/10/12-01/01/13	Start of planning of scientific visit by RRS James Clark Ross based on information within database and local knowledge/conservation priorities (workshop).
01/12/12-01/03/13	Development of camera lander lighting system & software for photography of benthic habitats & species.
01/03/13-21/03/13	UK team fly to Falkland Islands, UK and FI team join RRS James Clark Ross, which sails for last call at Bird Island and South Georgia research stations.
01/04/13-01/05/13	RRS James Clark Ross undertakes science at Tristan da Cunha. Team begins workup and analysis on route to Ascension Island where they are dropped to fly/sail back to points of origin.
01/04/13-30/06/13	Specimens sent to taxonomists, data added to database and analysis presented to Tristan da Cunha conservation department. Policy paper drafted for aiding compliance with Convention on Biological Diversity on the continental shelf and marine protected area preliminary proposals.
	FINISH

10. In what year would you expect to submit the full Darwin project application? 2014

2013

I certify that, to the best of our knowledge and belief, the statements made in this application are true and the information provided is correct.

Name (block capitals): DAVID K A BARNES

Position in organisation: MARINE ECOLOGIST

Signed:

Dated: 28 / 01 /12

Project title: SOUTH ATLANTIC WILDERNESS; ASSESSMENT OF TRISTAN DA CUNHA'S SEABED BIODIVERSITY

Challenge Fund Application - Checklist for submission

	Check
Have you provided anticipated start and end dates for your award?	yes
Are both your concept notes within 500 words each?	yes
Has your application been signed	yes
Have you read the Guidance Notes and are you satisfied that your concept would be eligible for a main project application?	Yes
Have you included CVs and letters of support as required?	Where possible
Have you checked the Darwin website immediately prior to submission to ensure there are no late updates?	yes

Once you have answered Yes to the questions above, please submit the application in Word format, not later than 2359h GMT on Monday 30 January 2012 to Darwin-Applications@ltsi.co.uk using the title of the project (or first few words) as the subject of your email.

Please also send a hard copy of the signature page (only) to the Darwin Applications Unit, LTS International, Pentlands Science Park, Bush Loan, Penicuik EH26 0PL.

Applicants from UKOT institutions should fax a copy of the signature page to the Darwin Applications Unit on 0131 440 5501 or email a scanned original signature to Darwin-applications@ltsi.co.uk.

DATA PROTECTION ACT 1998: Applicants must agree to any disclosure or exchange of information supplied on the application form (including the content of a declaration or undertaking) which the Department considers necessary for the administration, evaluation, monitoring and publicising of the Darwin Initiative. Application form data will also be held by contractors dealing with Darwin Initiative monitoring and evaluation. It is the responsibility of applicants to ensure that personal data can be supplied to the Department for the uses described in this paragraph. A completed application form will be taken as an agreement by the applicant and the grant/award recipient also to the following:- putting certain details (ie name, contact details and location of project work) on the Darwin Initiative and Defra websites (details relating to financial awards will not be put on the websites if requested in writing by the grant/award recipient); using personal data for the Darwin Initiative postal circulation list; and sending data to Foreign and Commonwealth Office posts outside the United Kingdom, including posts outside the European Economic Area. Confidential information relating to the project or its results and any personal data may be released on request, including under the Environmental Information Regulations, the code of Practice on Access to Government Information and the Freedom of Information Act 2000