



Darwin Initiative Main/Post/D+ Project Half Year Report (due 31st October 2018)

Project reference	DPLUS072
Project title	Developing the risk assessment framework for the Antarctic krill fishery
Country(ies)/territory(ies)	British Antarctic Territory
Lead organisation	British Antarctic Survey
Partner(s)	
Project leader	<i>Philip Trathan</i>
Report date and number (e.g., HYR3)	<i>12 October 2018</i>
Project website/blog/social media etc.	

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).

Our project started on 1 August, however in order to prepare the ground in readiness for the beginning of the project we submitted a number of papers to two meetings; the first being the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) Workshop on Spatial Management (WS-SM-18) and the second being the CCAMLR Working Group on Ecosystem Monitoring and Management (WG-EMM-18). Both meetings were hosted and held by my group at BAS in Cambridge UK during July this year. We also submitted two Working Papers (translated into all official languages) to the CCAMLR Scientific Committee which will be held during October in Hobart, Australia.

1. WS-SM-18/04 Developing the risk assessment framework for the Antarctic krill fishery in Area 48. P. Trathan, V. Warwick-Evans, E. Young, S. Thorpe, E. Murphy (UK), N. Kelly, S. Kawaguchi and D. Welsford (Australia).
2. WS-SM-18/05 An experimental approach for the Antarctic krill fishery: advancing management and conservation through the use of Krill Reference Areas and Krill Fishing Areas. P.N Trathan (UK) and O.R. Godø (Norway).
3. WG-EMM-18/P12 Habitat preferences of Adélie and chinstrap penguins during pre-moult. V. Warwick-Evans (UK), M. Santos (Argentina) and P.N. Trathan (UK).
4. SC-CAMLR-XXXVII/10 Advancing management and conservation through the use of an experimental approach for the Antarctic krill fishery. P.N Trathan (UK) and O.R. Godø (Norway).
5. SC-CAMLR-XXXVII/24 Invitation to participate in a workshop on krill fishery management for Subareas 48.1 and 48.2. G. Watters (USA) and P. Trathan (UK).

All of these papers can be provided as evidence on request to the project Project Leader.

Output paper 5, SC-CAMLR-XXXVII/24, arose following an *ad hoc* workshop (17 participants plus 5 remote participants – those at the workshop included Vicky Warwick-Evans (the PostDoc on DPLUS072), two others from BAS, and myself) which took place in La Jolla, California, convened and chaired by George Watters and myself which focused on preparation

for a krill management workshop which will be held next year in France. This workshop has a single Term of Reference: *The workshop will explore how management strategies for the krill fishery can be integrated and harmonized. Such strategies include, but are not limited to, Feed Back Management, and the use of Research Zones within the MPA proposed by Chile and Argentina. Strategies could be advanced based on advice developed from Risk Assessments and Ecosystem Models.*

This *ad hoc* workshop is an example of how the community views the need to deliver a sustainable management framework for the Antarctic krill fishery in the near future. The workshop in La Jolla and the one next year in France follows interactions between the workshop chairs and WWF and the Pew Charitable Trusts who financed the meeting(s). This co-founding was not envisaged at the time that DPLUS072 was originally submitted, but has developed following DPLUS072 funding being agreed.

The project effort to date has been successful in influencing CCAMLR. The CCAMLR Working Group on Ecosystem Monitoring and Management has now agreed that there was a requirement for the Scientific Committee to provide advice to the Commission on progress towards the development of the Risk Assessment Framework, and the spatial allocation of catch no later than the annual meeting in 2019 and that Conservation Measure 51-07 (the measure that spatially distributes the krill catch) would need to be replaced or updated no later than the end of the 2020/2021 fishing season. Given this schedule, the Working Group agreed that the issue of Risk Assessment Framework, and the spatial allocation of catch should form a key part of the agenda of the Working Group on Ecosystem Monitoring and Management in 2019.

In addition to setting the wider framework within the community and within CCAMLR, we have also made progress with data exploration and analysis. We are now actively exploring telemetry data in order to model the spatial distribution of both Adélie and Gentoo penguins. Additional work will be undertaken for other krill predators later in the project.

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.

At present we have made good progress and the project is developing well. We have promises of relevant data from international collaborators. These promises are affirmation of agreements made before we submitted our proposal. We have not collated the data as yet, but will do so as we work on those particular data sets.

At the point of agreeing our project, LTS requested that we develop a log frame for the project. We have done this and will submit it separately from this report. We welcome feedback on this log frame, so that we can ensure it is appropriately structured.

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: No

Formal change request submitted: No

Received confirmation of change acceptance No

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

Yes No 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 at the early stages, being just two months into the project. We have no issues at the moment, having tried to prepare the ground in advance of the project official start date.

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. Additionally, if you were funded under R24 and asked to provide further information by your first half year report, please attach your response as a separate 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**