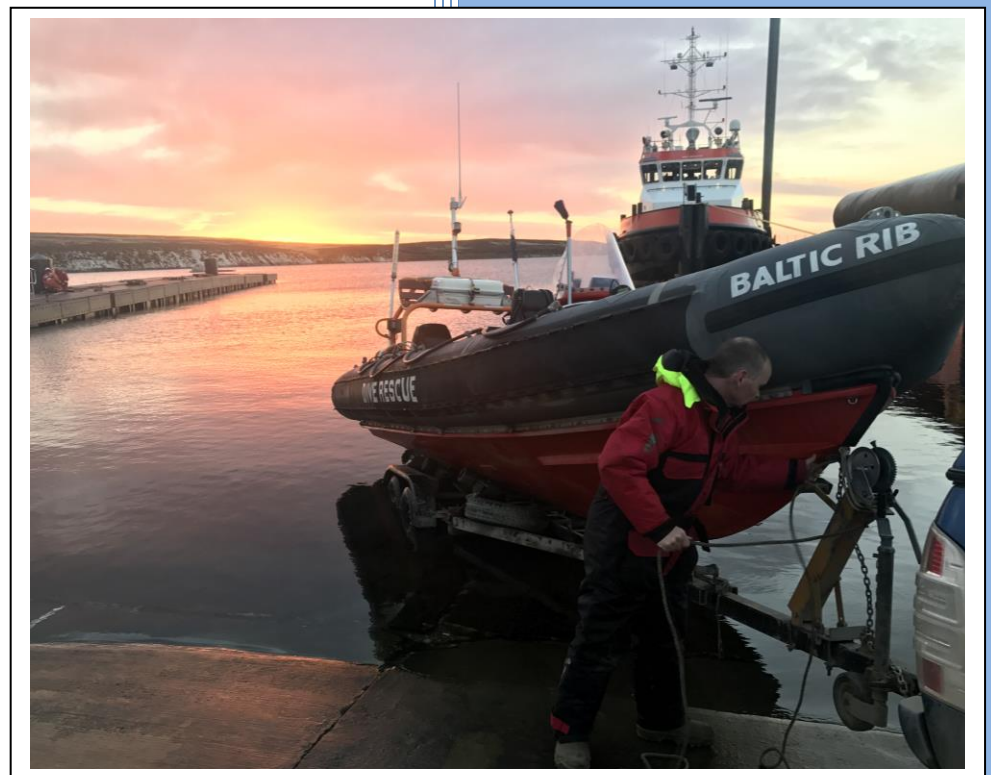




2018

DOKE Field Work Report Focal Survey #3 – Feb-Mar 2018



Marina Costa
SAERI
1/31/2018

Table of Contents

Background.....	2
Summary.....	2
C-POD.....	7
Conclusion and next steps statement.....	8
Acknowledgements.....	9



Grant Munro
Austral biodiversity

Background

South Atlantic Environmental Research Institute (SAERI) is leading a multi-partner project entitled 'Dolphins of the Kelp: Data priorities for Falkland's inshore cetaceans' (hereinafter DOKE), which is funded by the UK Government's Darwin Plus Funding scheme and the Falkland Islands Government (FIG). The project partners are Falklands Conservation (FC), Shallow Marine Surveys Group (SMSG), Austral Biodiversity, Oregon State University, and University of St Andrews. The aim of DOKE is to establish baseline data on the abundance, distribution, natural history and genetic diversity of the Falklands inshore cetacean populations to provide a scientific basis for conservation and ecosystem-based marine management initiatives. The target species are the Commerson's (*Cephalorhynchus commersonii*) and Peale's dolphins (*Lagenorhynchus australis*) although all cetaceans encountered are recorded.

The project is delivered through three complimentary work programmes: 1. island-wide transect survey, using line transect methods to estimate abundance of both species; 2. focal studies, carried out in three areas (A. Port Stanley – Port Williams – Berkeley Sound; B. Choiseul Sound; C. Port Howard – Many Branch) and using photo-identification and passive acoustic monitoring methods; 3. tissue sampling to determine genetic diversity, local population structure, and relationship to SW Atlantic contiguous continental stocks.

The purpose of this report is to describe the field work related to the third focal survey of the project, carried out in November-December (summer) 2017. This document is part of a series of reports summarizing the DOKE fieldwork, including: the Biopsy Report 2017 (submitted by Scott Baker), the Focal Survey 1 – Summer 2016, the Focal Survey 2 – Winter 2017, the Aerial Survey Report 18 March – 8 May 2017, the Condor Survey Report 21 February – 1 March 2017, and the Cetacean Observations between the Falkland Islands and South Georgia conducted on board of the HMS Enterprise from the 21st to the 31st of January 2017. Information about the study area, the boat, material and methods are found in the 'Focal Survey 1' report and in the 'Focal Survey Protocol Data Collection' file, also available on the SAERI website (<http://www.south-atlantic-research.org/research/current-research/dolphins-of-the-kelp>).

This document can be cited as: Costa M. 2017. Focal Survey #3 – February-March 2017. Dolphins of the Kelp Field Report 2017, South Atlantic Environmental Research Institute (SAERI), 9 pp.

Summary

The third focal survey lasted 13 days (88 hours in total), from the 2nd of November to the 21st of December 2017. Five days were spent in each of the areas A and C, and three days were spent in the area B. The total effort was 1,123 km of which 821.6 km (73%) navigated searching for dolphins (**Figure 1**).

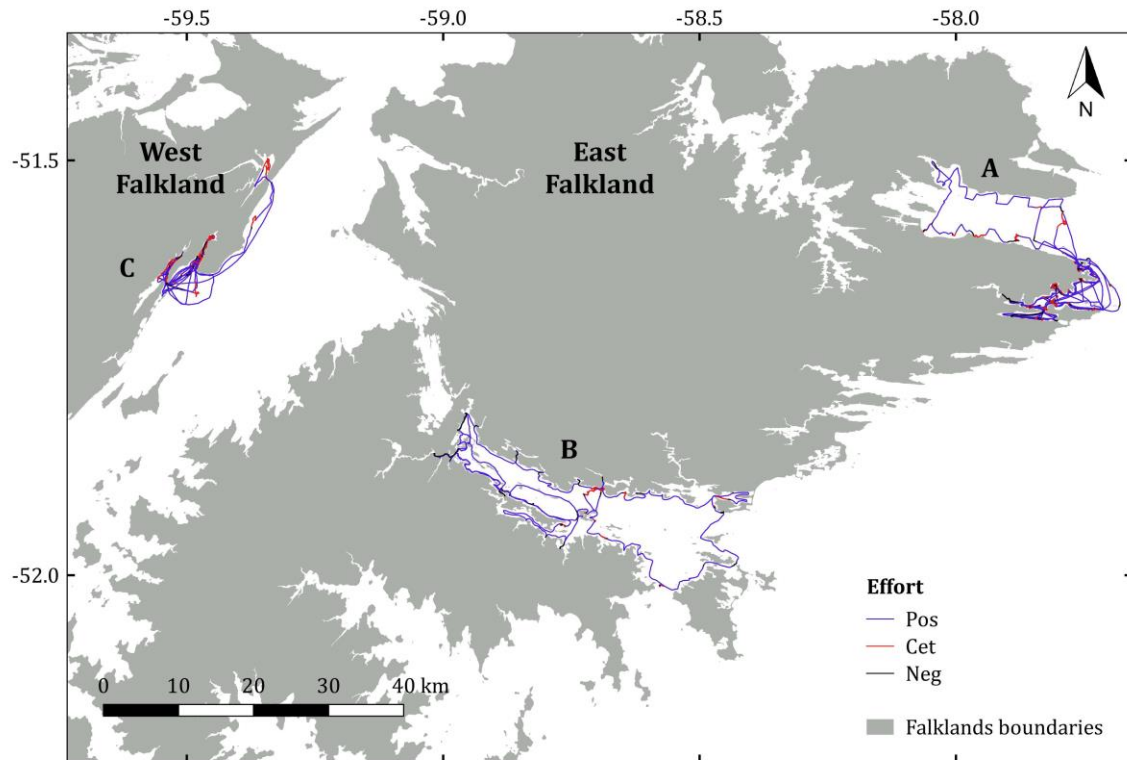


Figure 1 - Survey effort carried out during 13 days of survey from the 2nd of November to the 21st of December 2017, in the three focal areas: **Area A**. Port Stanley, Port Williams, Berkeley Sound; **Area B**. Choiseul Sound; **Area C**. Port Howard, Many Branch. The black line represents the total navigation (1,120 km).

A total of nine researchers were involved in the field work, including the project manager Marina Costa. The details about people on board, area covered, total kilometer and hours per day are summarized in **Table 1**.

People on board included crew members (MCOS, MGAR and MTAY), one yearly volunteer (AGUE) and volunteers (VIRI, MBOL, JTHI and MCLI). Crew members provided training to volunteers on the following topics: use of GPS, use of DLR camera and underwater action camera; cetacean sighting and photo identification; group size estimation; introduction to research protocols; health & safety and good

practices on board of small boats. The duration of the surveys reported in **Table 1** accounts for the training hours of the trainees.

Table 1 - Date, area, crew on board, and effort (total and 'Positive' kilometers, and total time) for each day of survey. Crew code: AGUE= Amy Guest; JTHI= Jean-Baptiste Thiebot; MCLI= Matthew Clint; MCOS=Marina Costa; MGAR= Maria Garcia; MBOL= Megan Boldenow; MTAY= Maria Taylor; VIRI= Veronica Iriarte.

Date	Area	Crew	Effort		
			Total (km)	Positive (km)	Total time (hh:mm)
02/11/2017	A	MCOS, MGAR	109.9	73.9	09:34
13/11/2017	C	MCOS, MGAR, AGUE, VIRI	70.1	56.3	06:00
14/11/2017	C	MCOS, MGAR, AGUE, VIRI	45.1	28.6	03:50
15/11/2017	C	MCOS, MGAR, AGUE, VIRI	101.5	60.6	08:54
16/11/2017	C	MCOS, MGAR, AGUE, VIRI	75.5	47.4	06:47
17/11/2017	C	MCOS, MGAR, AGUE, VIRI	21.6	3.0	03:55
22/11/2017	B	MCOS, MGAR	98.8	84.9	06:42
30/11/2017	B	MCOS, MTAY, MBOL	89.5	66.1	07:04
01/12/2017	B	MCOS, JTHI, MBOL	98.4	83.6	06:08
07/12/2017	A	MCOS, MBOL	93.1	64.0	07:49
12/12/2017	A	MCOS, MTAY, MBOL	90.5	74.8	06:22
19/12/2017	A	MCOS, MTAY, MCLI	139.2	112.9	09:09
21/12/2017	A	MCOS, MTAY, MCLI	87.2	65.6	05:17
13 days			1120.3	821.6	87:35

The field work was carried out on board of the rigid hull inflatable boat (RHIB) *Baltic Warrior* of the SMSG; the skipper was Steve Cartwright (**Figure 2**).



Figure 2 – The RHIB Baltic Warrior of the Shallow Marine Survey Group (SMSG) used for the field work.

Cetaceans were observed in 97 occasions including three species, Commerson’s dolphin (66 sightings), Peale’s dolphin (27 sightings), sei whale (one animal, 1 sighting); in one sighting species was not identified (**Table 2**).

Table 2 - Number of cetacean detections for each species and for each area.

Area	Species			
	All	Commerson’s dolphin	Peale’s dolphin	Sei whale
A	47	17	26	1
B	10	9	1	0
C	40	40	0	0
Total	97	66	27	1

In area A all three species were spotted (Commerson's and Peale's dolphins and sei whale), in area B and C only Commerson's dolphins were encountered (**Figure 3**).

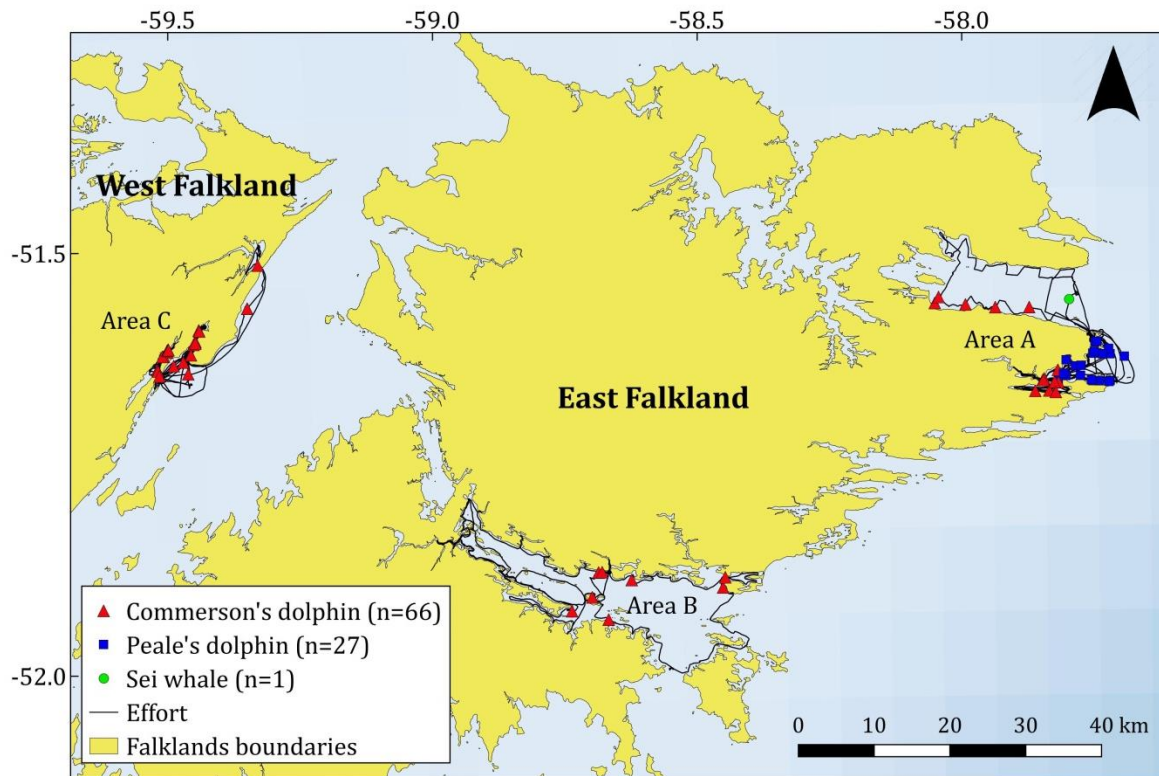


Figure 3 – Sighting distribution of cetacean's species encountered during the third focal survey carried out survey from the 2nd of November to the 21st of December 2017.

Out of the 97 cetacean sightings made, during 67 (69%) navigation was interrupted and animal approached to collect photo-identification data. The total number of pictures useful for photo-identification was 12,641 (**Table 3**).

Table 3 - Number of cetacean sightings and pictures taken for Commerson's and Peale's dolphins for each area.

Area	All species		Commerson's dolphin		Peale's dolphin		Sei whale	
	Sighting	Photos	Sighting	Photos	Sighting	Photos	Sighting	Photos
A	38	4,516	14	1,786	22	2,542	1	146
B	8	1,998	8	1,998				
C	21	6,127	21	6,127				
Total	67	12,641	43	9,911	22	2,542	1	146

Average group size for the four species encountered was calculated for all sightings made, for all the species, and for the three areas (**Table 4**).

Table 4 - Mean group size (Mean), standard deviation (SD), range and sum of individuals observed calculated using sightings (n) where photo-identification data were collected, for all the species, and for the three areas. Survey was carried out from the 2nd of November to the 21st of December 2017.

Species	Area	n	Mean	SD	Range	Sum of individuals
Commerson's dolphin	A	14	5.6	5.4	1-17	79
	B	8	12.3	20.3	1-58	98
	C	21	13	8.9	2-37	273
	All	43	10.5	11.3	1-58	450
Peale's dolphin	A	22	4.9	3.6	1-14	108

C-POD

On the 15th of November 2017, the service to the three C-PODs deployed in Many Branches bay was carried out. C-POD were recovered, batteries and cards replaced, and re-deployed in the same positions. The unit *2088* that has been damaged by corrosion on the previous deployment was considered to be in good condition and was not replaced by a new unit (**Figure 4**).



Figure 4 – Recovery of the C-POD unit 2088. The unit was find free from the corrosion that occurred on the previous deployment (when stainless steel hose clips were used instead than plastic one) and was therefore re-deployed.

Conclusion and next steps statement

The third focal survey was conducted successfully. The total number of sightings (97) was similar to the number of sightings made in the summer of 2016 (103) and higher than the number made in winter 2017 (76). One sighting of sei whale was also made conforming what people in the islands was saying about an early arrival of the whales this summer respect to the previous.

The next survey will be carried out in the period February-March 2017.

Acknowledgements

We would like to give our most profound gratitude to all the Falkland Islands' residents who supported our work with enthusiasm and dedication. In particular we thank you: Bill Pole-Evans & Shirley at Bold Cove for the support in the field work and the logistic; Myles & Karen Lee and Critta & Beccy Lee at Port Howard for the support with the accommodation, the anchoring system for the vessel and other logistic issues; Karen Jones at Bold Cove farm; Steven & Chris Poole at Lively Island; Ken & Bonnie (Bonita) Greenland at Darwin for the logistic support and the amazing coffee and tea that are waiting us when we are back from the field; Keith Alazia manager of Goose Green farm for logistic support; Gilberto Castro & Suzie Clarke managers at Fitzroy Farm; Bobby & Lindsay Short at Walker Creek; Andy Pollard the General Manager of Falklands Landholdings who own Goose Green and Fitzroy farms; Vernon Lee for his huge help in all the logistic issues, field work, and engine maintenance. Thank you to the observers Amy Guest, Katie Bridge, Jenni Sol, Ness Smith, Sasha Cleminson, and Pamela Jelbes. Thank you to the Commander W. Dawson of the Royal Navy at East Cove Military Port for his cordiality, logistic support, and contagious enthusiasm for the wildlife. Huge thanks to iLaria for her support with GIS and the development of an app to record wildlife presence. Big thanks to the project partners: Nick Rendell from the Falkland Islands Government; Grant Munro from Austral Biodiversity and Premier Oil; Andy Stanworth and Esther Bertram from Falklands Conservation; Scott Baker from Oregon State University (OSU); Sonja Heinrich from the University of St Andrews; Paul Brewin and Steve Cartwright from the Shallow Marine Surveys Group. A particular massive thank to Steve for driving the boat and for his support, knowledge, energy and enthusiasm put during the long our spent at sea. Thank you to Premier Oil and Falkland Conservation for providing material and in-kind work. A huge thank to the SAERI director, Paul Brickle and SAERI crew, Tara Pelembe, Teresa Bowers-McNeil, iLaria Marengo, Megan Tierney, David Blockley, Emma Beaton, Katie Brigden, Sammy Hirtle and Zoe James. The Dolphins of the Kelp project is funded by the Darwin Initiative (Darwin Plus project number DPLUS042, <http://www.south-atlantic-research.org/research/current-research/dolphins-of-the-kelp>) and by the Falkland Islands Government that we tank deeply.