



QUARTERLY STEERING COMMITTEE REPORT
(July to September 2015, 2015:Q2)

Marine Spatial Planning for the Falkland Islands

Dr Amélie Augé, project officer, SAERI
Email: AAuge@env.institute.ac.fk



9 October 2015

The purpose of this report is to describe the activities conducted during the last quarter as part of the Darwin Plus-funded Marine Spatial Planning (MSP) project, the state of activities against the expected outputs in the work plan and an update on the project budget with spent and expected expenses. The quarterly steering committee reports are produced for the steering committee to monitor and assess progresses. Edited versions of the reports are posted on the project webpage.

1. Summary of activities in the second quarter (2015:Q2, July-Sept 2014)

- MSP workshop ‘Developing the tools’ workshop report peer-reviewed and published online
- MSP workshop ‘Identification of important areas for marine megafauna’ peer-reviewed and published online
- MSP webpage updated and all links added
- Engaged with the Falkland Islands Tourism Board
- MSP research assistant for whale sub-project started (RA funded by ESB not Darwin Plus)
- MSP research assistant for sub-project cultural coastal value mapping started
- MSP paper submitted to Environmental Committee
- Metadata catalogue format sorted and currently gathered (also created metadata entry for the IMG-GIS data for new datasets acquired as part of the MSP project, 25 datasets)
- Created a simple database for the GIS data, easily accessible to anyone and with consistent coordinate systems, and ready for mapping
- Attendance at stand and public presentation about MSP during Farmers’ Week in Stanley
- Presentation at biosecurity workshop for South Atlantic UKOTs of MSP-based results of areas most susceptible of introduction for non-native marine species for the Falklands (presentation given by Dr iLaria Marengo, collaborator on this MSP analysis)
- Interview given on MSP project on the local TV for public outreach

2. Progress against work plan

The work plan for the life of the project is shown in the table below with the detailed expected outputs. The years are Darwin finance years (that are from April to March each year, not calendar years). The outputs relevant to the period 2015 Q2 (July-Sept 2015) are highlighted in yellow.

Activity	No of Months	2014				2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 1 Increased data availability. Data review, identification, collation, storage and curation.													
1.1 Project Officer Recruitment	1		■										
1.2 Review of extant data relevant to MSP in the Falkland Islands	3		■	■	■								
1.3 Creation of metadata catalogue	3						■						
1.4 Collation, assimilation and creation of project specific geospatial databases	5		■	■	■	■	■						
Output 2 Best Practise Review													
2.1 Review circulated to project partners and stakeholders for comment. Project report posted on Websites	2			■									
Output 3 Stakeholder Workshop 1													
3.1 Workshop report produced and circulated for comment; workshop report posted on website	0.5			■									
Output 4 GIS Platform													
4.1 Build to accommodate data identified in the metadata catalogue and Stakeholder Workshop	14		■	■	■	■	■	■					
4.2 Map examples of specific data that would directly contribute to aims i.e. coastlines, habitats, resource extraction (fisheries/minerals), tracking data, seabird, mammal data, and physical data etc.	14		■	■	■	■	■	■					
Output 5 Data Analyses													
5.1 Re-examination of satellite track and logging data from seabirds and mammals to gain new data on ecologically important areas coastally in open ocean	10				■	■	■	■	■				
5.2 Report developed for circulation – develop into a peer review paper	3												
Output 6 Stakeholder Workshop 2													
6.1 Workshop report produced and circulated for comment; workshop report posted on website	1					■							
Output 7 Second main phase of data analyses													
7.1 Map current and newly acquired data to provide a "bioregionalisation" of the Falkland Islands EEZ	6												
Output 8 Stakeholder workshop 3													
8.1 Workshop report produced and circulated for comment; workshop report posted on website	1												
Output 9 Final Project Report and Policy Paper													
Final project report to Darwin and FIG. A policy paper produced to FIG's Environment Committee, the Policy Department and Executive Council	3												

All activities progressed successfully. However, progress was halted for 3 weeks due to medical emergency and following medical leave of the project officer. Recovery time also involved part-time work for an extra few weeks. Therefore, the project progress was stopped for about 6 weeks. However, the progress was in advance of the plan and therefore this medical leave has not affected the overall progress.

A meeting was organised with Falkland Islands Tourism Board and the MSP project has now engaged with Falkland Islands Tourism Board with addition of a representative on the steering committee (CEO, Stephanie Middleton) is happy for the Board to be involved and can see some benefits to the process. Tourism was the main stakeholder group that had not been responsive to MSP so far so this is a great progress.

Extra activities related to MSP took place during this quarter:

- Organised field trip to investigate a whale stranding and obtain data to add to the stranding database. This illustrated the lack of protocols in place to attend and carry out basic sampling to obtain important data that will be useful for MSP in the future (for instance potential ship collision).
- Nearshore-dolphin Darwin Plus project proposal submitted

3. Budget update

The Darwin budget to report against is (with Darwin expenses categories):

Months	July 2014-March2015	April 2015-March 2016	April 2016-Jun2016	
Darwin periods	2014:Q2 to 2014:Q4	2015Q1 to 2015:Q4	2016:Q1	
Darwin years	2014/15	2015/16	2016/17	Total
Staff Costs	£ 31,004	£ 44,283	£ 10,043	£ 85,330
Consultancy costs				£ -
Overhead costs				£ -
Travel & Subsistence	£ 5,000	£ 25,042	£ 1,000	£ 31,042
Operating costs	£ 4,000	£ 13,000	£ 1,700	£ 18,700
Capital Equipment**	£ 4,000			£ 4,000
Other costs**	£ 2,500	£ 8,500		£ 11,000
End of project audit fee* (max 1 x £1,500)			£ 1,500	£ 1,500
TOTAL	£ 46,504	£ 90,825	£ 14,243	£ 151,572
<i>% of DI Funding on Capital Equipment</i>				3%

The expenses and revenues for 2015:Q1 are as follow:

Description	Revenues	Expenses*	Balance

The balance has a large surplus at the end of the quarter. A number of expenses did not occur due to unexpected circumstances (medical condition prevented use of the mid-contract flight by the project officer and this was postponed to next quarter, and webGIS requiring further negotiations with the local internet provider). The excess balance from this quarter will be spent in the next quarter for the postponed and planned expenses.

Expenses planned in the next quarter are:

Expense description	Expected costs

4. IMS-GIS dataset entries

New datasets acquired as part of the MSP project were added to the IMS-GIS Data Centre so that they increase their availability. The MSP project officer created the datasets and the metadata entries and the IMS-GIS project officer (Dr iLaria Marengo) entered in the online database she manages. In the metadata catalogue online, searching for “Marine spatial planning” returns some datasets added by the MSP project. All other datasets used for MSP had already been added to this database.

Metadata Catalogue Print Email



Search for data collected in the UK Overseas Territories of the South Atlantic region. Please use meaningful keywords (e.g. albatross, penguins, plants, habitat, farm, boundaries, Ascension island, etc) and all the data that have a link with the word you typed will be brought back from the online search and listed.

Then click on the title of the dataset and read through the [metadata form](#). Details on who, where, when and how the data have been collected are provided to you. In addition, you will be informed on who owns the data and who is the custodian and distributor.

As part of the data management policy within the SA UKOTs, please request the data using this [data request form](#) and sending it to the data custodian within each territory. Open access data do not need of a data request form. To access these data send an e-mail to the data custodian. Please note that external organisations which provide custodianships for the data of the SA UKOTs can be enquired using the email address provided in the metadata form.

Alternatively to the online search below, a full list of metadata for each territory is available by clicking on the territory's coat of arms. **Falkland Islands NEW UPDATE October 2015!**




Title	Responsible Organization	Metadata Update Date
Cetacean watch data 2004-2008	Falklands Conservation Jubilee Villas Ross Road Stanley FIQQ 1ZZ Falkland Islands	2015-09-27
Areas used for at sea military exercises around the Falkland Islands	1) Mount Pleasant Military Complex Falkland Islands 2) SAERI PO009 Stanley Cottage North Ross Road Stanley - Falkland Islands	2015-09-29
Fuel tanks of the Royal Navy around the Falkland Islands	1) Mount Pleasant Military Complex Falkland Islands 2) SAERI PO009 Stanley Cottage North Ross Road Stanley - Falkland Islands	2015-09-29
Firing exercise ranges used by the navy around the Falkland Islands	1) Mount Pleasant Military Complex Falkland Islands 2) SAERI PO009 Stanley Cottage North Ross Road Stanley - Falkland Islands	2015-09-29
Monthly Sea Surface Temperature from 2002 to 2013	SAERI PO09 Stanley Cottage Ross Road Stanley - Falkland Island	2015-07-06
Last port of call of vessels visiting the Falkland Islands from 2014 to June 2015	1) SAERI PO009 Stanley Cottage Ross Road Stanley - Falkland Islands 2) Customs and Immigration Department, Byron House, 3 H Jones Road, Stanley, Falkland Islands	2015-07-05
Passengers and number of IAATO vessels for 2013 and 2015 tourist seasons	1) International Association of Antarctica Tour Operators (IAATO) 320 Thames Street, Suite 204, Newport, Rhode Island, 02840, USA, 2) Falkland Islands Environmental Planning Department PO Box 811 Stanley Falkland Islands FIQQ 1ZZ 3) SAERI PO009 Stanley Cottage Ross Road Stanley - Falkland Islands	2015-07-05

© 2013 South Atlantic Environmental Research Institute

5. Cultural values sub-project

Denise Herrera was appointed in September as the research assistant to conduct a pilot study on mapping cultural coastal values for inclusion in the MSP process. Over September, she interviewed 32 people in camp (West and East Falklands and some outer islands). She will now interview people in Stanley and digitise the maps.

6. Whale sightings sub-project

Veronica Frans was appointed in August as the research assistant to conduct a study on gathering and mapping best available knowledge on whale sighting and distribution using a combination of existing data and knowledge elicitation from the local community. All existing datasets that contain have been consolidated and, in September, she conducted fieldtrips in camp (East and West Falkands and some outer islands) to obtain historical sightings from the community to understand patterns of recovery and map these to inform planning. Thirty-five people were interviewed in camp. She will now focus on Stanley (in particular FIGAS pilots, launch crews etc) and will be digitising all the maps to combined community data with existing data.

7. Feedbacks on submitted paper to Environmental Committee

A paper for the Executive Committee was prepared and circulated around the steering committee for comments before submission (attached here in Appendix 1). A suggestion was to, first, submit a similar paper to the Environmental Committee. This was agreed and therefore the ExCo paper was postponed until we received comments for the paper attached in Appendix here and that was submitted to the Environmental Committee on 22 August (with similar format as required for ExCo papers as well). The feedbacks from the Environmental Committee were very small and did not give indication of whether they saw the need or suggestions or their agreement with it. The only comments were: "The FIFCA representative noted that it cannot be assumed that MSP will be approved at this early stage. Committee agreed with this sentiment". Following this insufficient response from the committee, it was suggested that the project officer presents at the environmental committee and asks the questions that need answered with a similar presentation to that given there in February, but focussed on the paper submitted.

8. Work plan for the next quarter

- Series of articles in the Penguin News about MSP for public outreach
- Write the bi-annual Darwin report (due early November)
- Complete analyses for the cultural values to create a new spatial dataset for MSP and present results to the community
- Creation of webGIS tool by IMS-GIS Data Centre including acquisition of a sever to host the data (Dr iLaria Marengo will be the lead on this)
- Finish analyses of shipping data
- Finalise the MSP metadata catalogue and GIS database
- Creation of maps suited for webGIS and integration of these in the webGIS
- Holidays

Title of Report: Developing a Marine Spatial Planning process for the Falkland Islands
Item:
Date: 27th August 2015
Report of: MSP Project Manager and Director of SAERI

1.0 Purpose

- 1.1 To inform members about the Marine Spatial Planning (MSP) process as initiated by the Darwin Plus funded project led by the South Atlantic Environmental Research Institute (SAERI).
- 1.2 To demonstrate the importance and benefits of establishing an MSP process in the Falkland Islands, in particular with regard to a sustainable economy, marine safety and environmental management.
- 1.3 To inform members about the sustainability needs and opportunities of the MSP process beyond the initial 2-year funding.

2.0 Recommendations

- 2.1 The Environmental Committee is recommended to acknowledge the importance of the MSP process in the management of the coastal and marine environments of the Falkland Islands and that the process is grounded in objective and sound science.
- 2.2 The Environmental Committee is recommended to agree in principle to support and sustain the MSP process, subject to finer scale design and financial commitments, through policy development and further scientific mapping and analyses.
- 2.3 The Environmental Committee is recommended to acknowledge that the MSP process is a live process that must be updated continuously and that the lead on the policy part and coordination of this process will become the responsibility of a Government Department in the long-term, whilst the science toolbox and analyses can be led by SAERI.
- 2.4 The Environmental Committee is recommended to make this paper and all appendices attached public.

3.0 Background

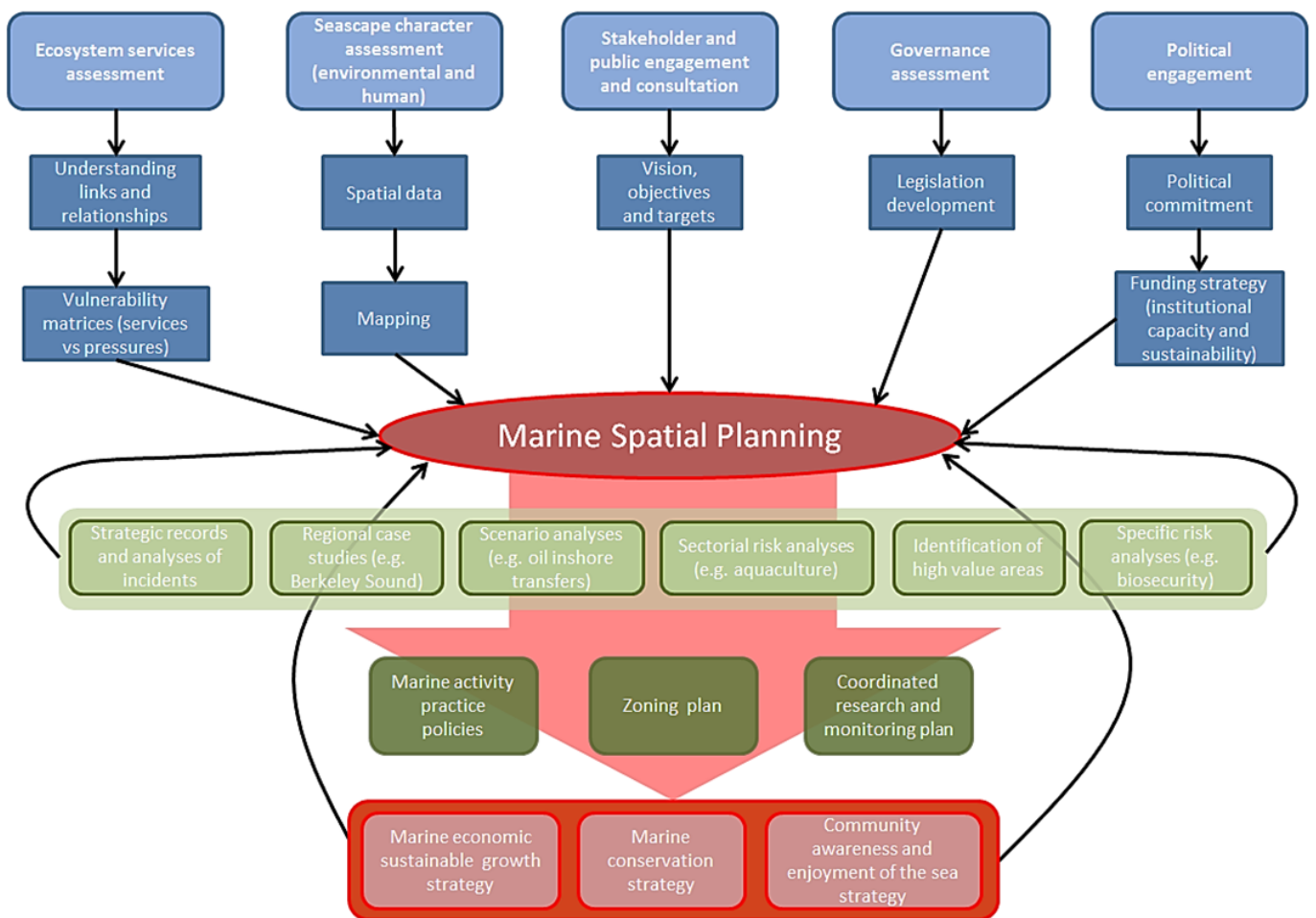
- 3.1. The Members of the Legislative Assembly stated in their Islands Plan 2014-2018 that they will “implement appropriate [...] marine spatial planning frameworks to ensure the preservation and management of [...] marine environments of the Falkland Islands”. This is a local stakeholder-driven process that is and will be internationally recognised and is something the Falkland Islands should be proud of.
- 3.2. The GDP of the Falkland Islands is dependent on the natural environment, in particular its marine environment. Ensuring this environment is sustainably managed, and that important sites and species are protected for a wealth of reasons, such as tourism or commercial fish nurseries, for instance, will be critical to the economic future of the Islands.
- 3.3. MSP is a process that supports the development of a strategic plan for regulating, managing and protecting the marine environment that addresses the multiple, cumulative and potentially conflicting uses of the sea. MSP implementation therefore demonstrates governmental commitment to ensure safety at sea and to demonstrate environmental stewardship, which is important in the current geopolitical context.
- 3.4. MSP is a forward-looking process that will ensure the long-term sustainable economic development of the core marine values (economic, cultural and environmental) of the Falkland Islands. Most marine economic and cultural values rely on a healthy marine environment (see examples of links in the figure below with some local interactions). The interactions of these economic, cultural and environmental factors need to be managed consistently and coherently.



- 3.5. Although the Falkland Islands are leading the way in best-practice fisheries management in the UKOTs, non-commitment to a robust MSP process will inevitably lead to unidentified and unmanaged dangers in the marine environment, in particular in the light of increasing marine activities. Such dangers may include maritime accidents with potential loss of lives and major environmental damage that would then lead to poor international reputation and impact on natural resources important to the two main current economic drivers of the Falkland Islands (commercial fishing and marine-based tourism).

3.0 Achievements to date (one year from project start)

- 3.1 Stakeholder consultations have been conducted and are ongoing (steering committee and workshops, see appendix 1).
- 3.2 Mapping how humans and wildlife use and value the marine environment and subsequent analyses are ongoing (see examples in appendix 2). Notably, analysis of a complete year of shipping traffic around the islands has identified a number of areas of concern. In the appendices 3, 4 and 5 at the end of the paper, there are case studies (Berkeley Sound, Beauchêne Island, and the Jason Islands) of such mapping exercises that have provided evidence for sensitive areas prone to conflicts with human activity or may already be at risk from current activities.
- 3.3 An initial conceptual model of how the MSP process should proceed in the Falkland Islands has been produced as below (description in the next paragraph).



In the figure above, the boxes in blue represent all the critical components needed to achieve a successful MSP process (note the MSP project has focused on only three of them due to resource constraints). The light green boxes show examples of the decision-making tools that the MSP process can provide managers and policy makers, including via recommendations made by scientists using these tools (these green lists are not exhaustive and only show examples of the type of tools MSP can provide). The dark green boxes are the management tools that can then be developed by managers (these are the main examples). The red boxes indicate some of the long-term strategies that implementing an MSP process in the Falkland Islands will support and inform. All the MSP tools produce feed back to the MSP process in order to evaluate benefits and improve the overall model.

4.4 By the end of the 2-year initial Darwin Plus funded project, a Geographic Information system (GIS) database and maps to assist decision making and environmental impact assessments will be provided to the Government, along with recommendations to inform future steps and new policies in the form of a 'Policy paper'. A public webGIS will be available online to display and overlay these maps.

4.0 Concluding remarks

- 5.1 The implementation of a long-term Government-led MSP process in the Falkland Islands will allow coordinated and sustainable marine economic development, ensure safety at sea, and ensure the design of appropriate protective measures to safeguard important places for Falkland Islanders.
- 5.2 MSP is a long-term process which will require a Governmental commitment to fully provide the full range of benefits that can be gained from it.
- 5.3 Implementing the MSP process in the Falkland Islands will bring international recognition of Governmental environmental stewardship and bring the Falkland Islands into the international limelight for leading the way in sustainable marine management as a small island nation, including in regard to preparedness for oil development and potential inshore oil transfers.

5.0 Financial Implications

- 6.1 None at present – SAERI was awarded a total £151,000 by DEFRA via the Darwin Plus initiative over 2 years (July 2014 to June 2016) and £15,000 from FIG as match-funding through the EPD Environmental Studies Budget in support of the project.

Appendix 1 – Stakeholder engagement

List of members of the MSP project steering committee (meets every three months and in regular contact outside of these meetings):

- Paul Brewin (FIG Fisheries Department)
- Bill Dawson (Royal Navy)
- Ken Humphrey (Falkland Islands Petroleum Licenses Association)
- Malcolm Jamieson (FIG Fisheries Department)
- Ben Lascelles (BirdLife International)
- Andy Pollard (Falkland Islands Fishing Companies Association)
- Nick Rendell (FIG Environmental Department)
- Andy Stanworth (Falklands Conservation)
- Phil Trathan (British Antarctic Survey)

Extracts from statements made by some members of the steering committee about what they gained and the benefits they noticed from the MSP project after one year into the project:

“Participation in the MSP process development has been a revelation from the outset. A very early indication of some of the powerful benefits available was when we identified that some of the military exercise areas overlapped a major penguin and seal foraging area. [...] The beauty of the MSP system is that the more you add to it, the better it gets and the more opportunities start to reveal themselves.”

Bill Dawson

“I have been involved in both the MSP project Steering Group and MSP workshop hosted in Cambridge. Both, but particularly the workshop, have provided for engaging with experts in a range of MSP related topics. [...] It has also been useful, through the project, to develop understanding of stakeholder concerns with regard to MSP.”

Andy Stanworth

“The Falkland Islands Government Fisheries Department has been pleased to be a part of this important initiative. [...] The MSP project has highlighted aspects of our managed areas where improvements can be made. In particular, illustrating some not well understood vessel movements [...]. New data has come to been introduced through the workshops [...] which have already aided in better management [...]. With the growing needs of a rapidly developing hydrocarbon industry in the Falklands, a robust marine spatial management plan will benefit all marine users, mitigating risk as well as protecting our marine resources.”

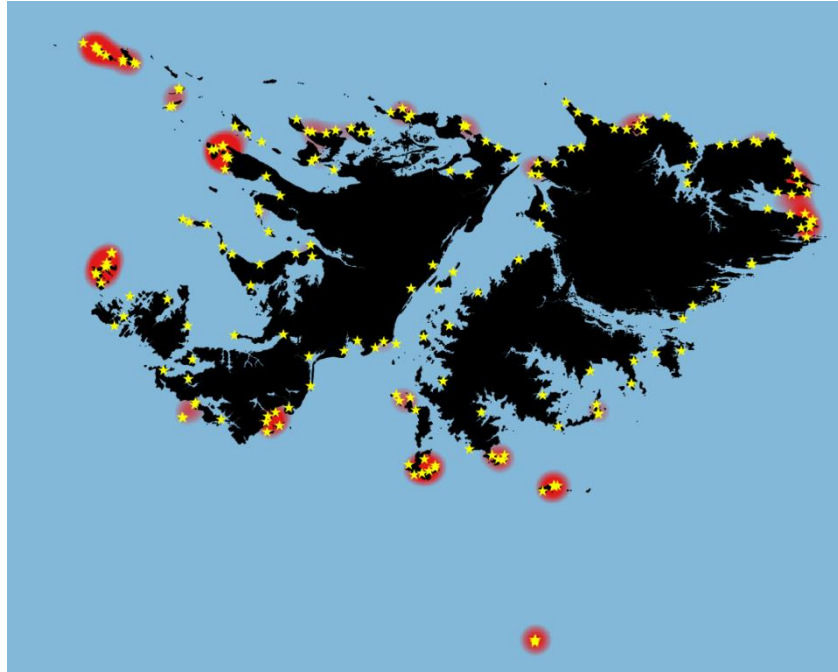
Paul Brewin

List of stakeholder workshop on MSP process

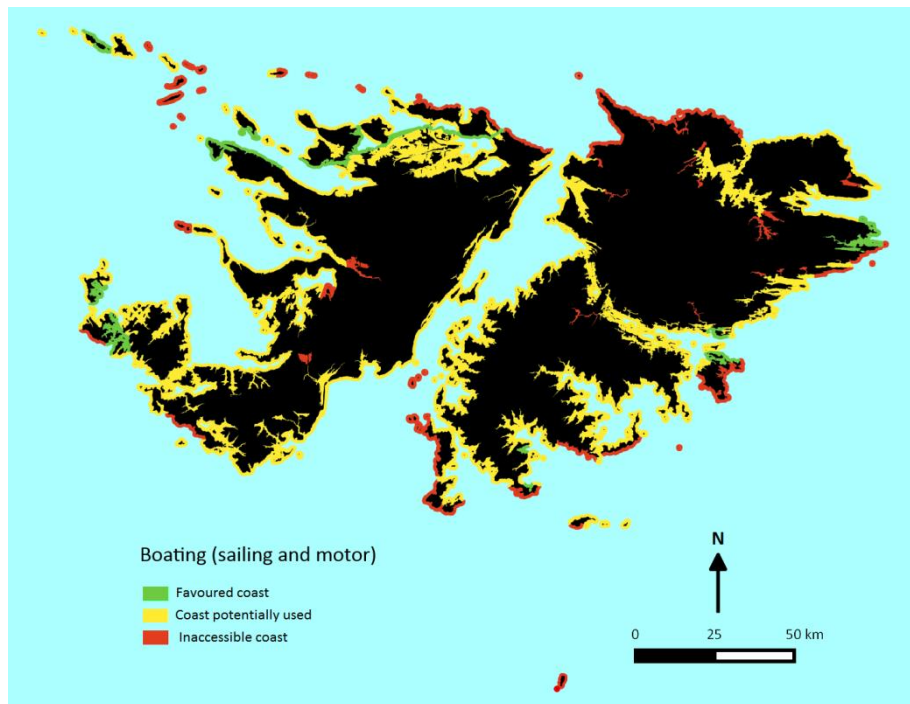
Event	Location	Date and time	Number of attendees
Public consultation #1: MSP for the Falkland Islands	Chamber of Commerce meeting room, Stanley, Falkland Islands	4/11/14 from 5pm to 8pm	18 (16 local stakeholders)
Workshop #1: MSP for the Falkland Islands "Setting the scene"	FIG Fisheries Department meeting room, Stanley, Falkland Islands	24/11/14 from 8.30am to 12.30am	17 (15 local stakeholders)
Workshop #2: MSP for the Falkland Islands "Developing the tools"	Homerton Conference Centre, Cambridge, UK	16-17/04/15 9am to 5pm	22 (8 local stakeholders)

Appendix 2 – Examples of mapping and analyses

Locations of breeding colonies of seabirds (albatross, giant petrels, penguins) and seals (yellow stars) and hotspots of breeding from analyses of colony locations (red areas). Data source: Falklands Conservation, Alistair Baylis and authors' additions.

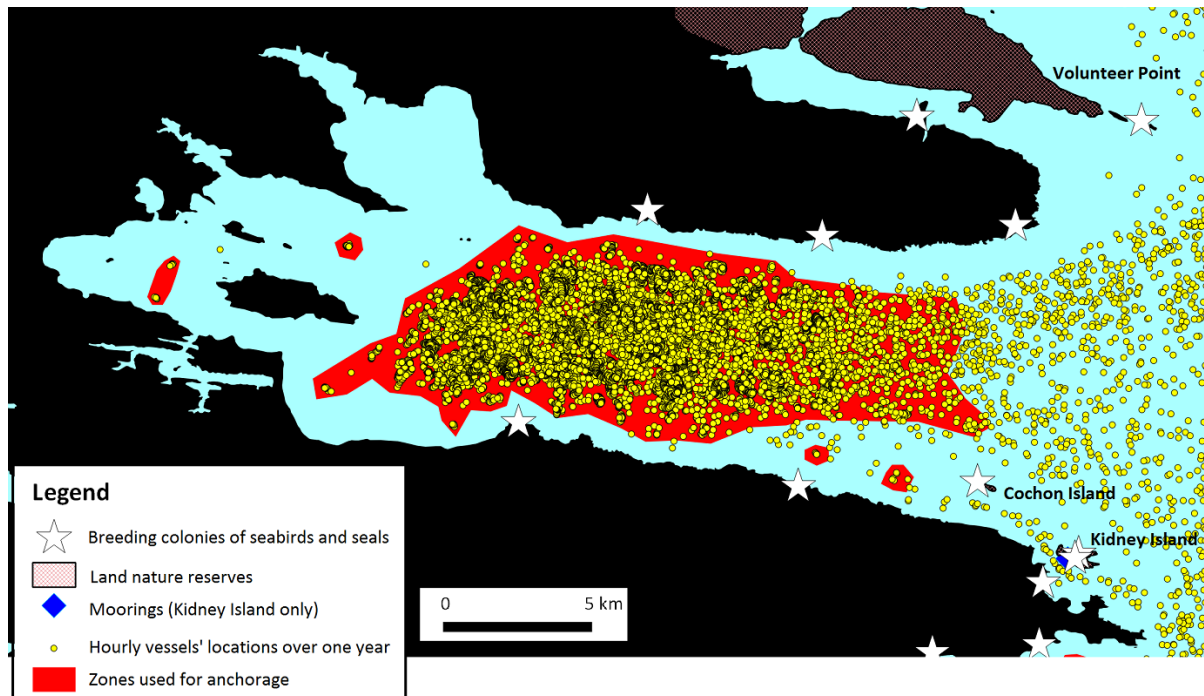


Identification of areas used and favoured for pleasure boating (sailing and small motor boat) from manual mapping by stakeholder consultation (including the Falkland Islands Yacht Club and individual sailors)



Appendix 3 – MSP case study 1

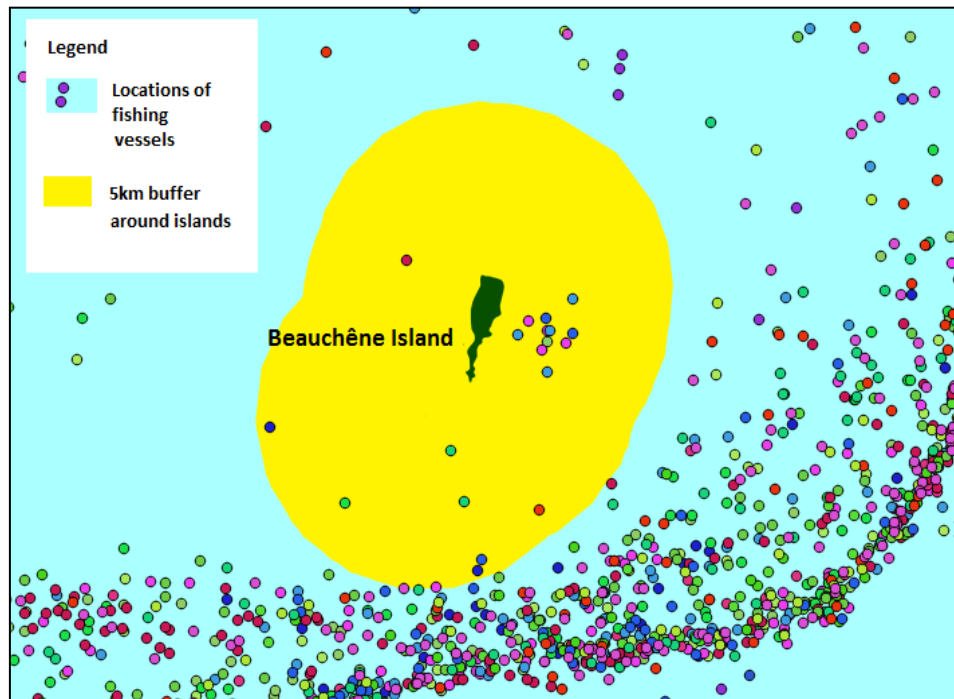
Berkeley Sound MSP case study



The map above presents the human use of Berkeley Sound with the locations of all vessels (fishing, cargo, reefers, tankers, launches, yachts, and others) that have used the Sound over one year (May 2014-May 2015) and locations of environmental features (Land nature reserves and sites of penguin and seal colonies). The only mooring is found next to Kidney Island. Cochon and Kidney Islands are nature reserves.

This map demonstrates that the Sound is already extensively used for human activities (commercial fishing vessels being the principal users) and that the potential for inshore oil transfers in the Sound will lead to competition for space. MSP by providing all the scientific evidence and a platform for discussion via stakeholder workshops can help resolve conflicts while also considering protection of environmental and cultural values within the area.

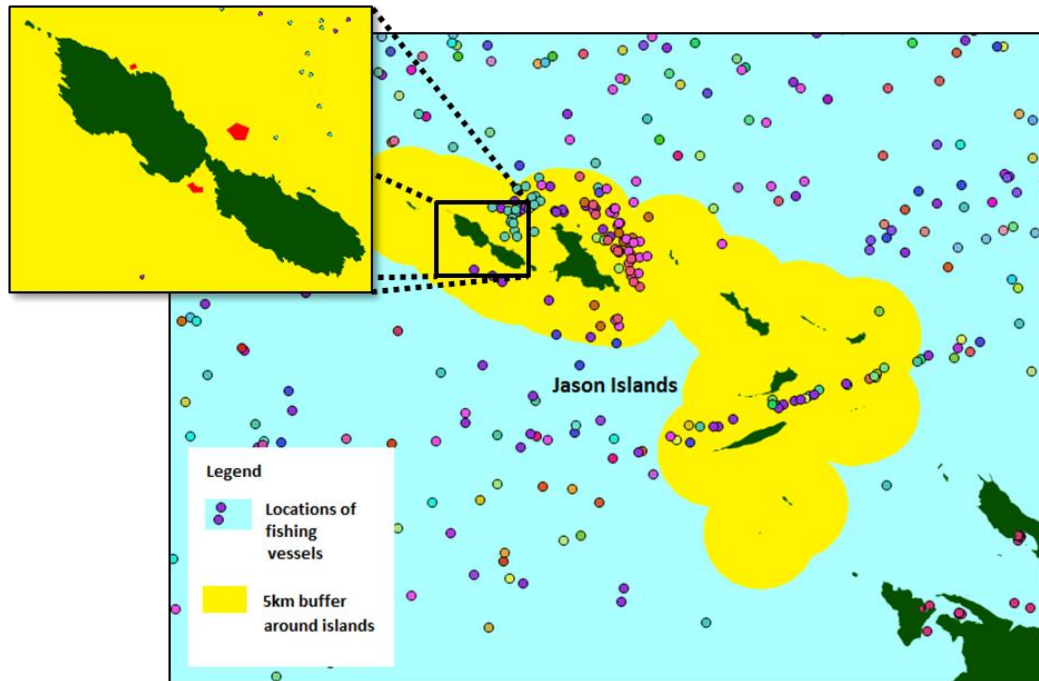
Appendix 4 – MSP case study 2

Beauchêne Island case study

This map above shows Beauchêne Island and the locations of all fishing vessels over one year (2013) from VMS (Vessel Monitoring System) data provided by the FIG Fisheries Department, with an indicative 5km buffer around the islands. Each individual fishing vessel is displayed in a different colour (8 fishing boats entered within 5km of the islands in the year).

Seldom visited by people, with the exception of rare scientific expeditions, Beauchêne Island is safeguarded from human activities due to its remoteness. Fishing does not take place within 5km from its shores. However, there is some ship traffic, including a few fishing vessels each year sheltering from the weather very close to the islands. Some transiting cargo ships have also been recorded passing within 10km of the islands. This poses a threat of accidental groundings (and at least one fishing vessel has sunk there), but also a biosecurity threat. The Islands are rat-free and host the largest amount of breeding seabirds in the Falkland Islands. Therefore, a serious accident with potential oil spills or a rat invasion would be catastrophic. The MSP process can provide the technical evidence to decision makers to take some management actions grounded in objective science.

Appendix 5 – MSP case study 3

The Jason Islands case study

The maps above shows the Jason Islands and hourly locations of all fishing vessels over one year (2013) from VMS data, and areas of anchoring used by cruise ships from AIS (Automated Information System) data (red areas in the zoomed-in map on the top left corner), with an indicative 5km buffer around the islands. Each individual fishing vessel is displayed in a different colour.

The Jason Islands are a long archipelago of uninhabited islands and are rat free. The southern islands of this group are listed as nature reserves by FIG. The Islands are used by several groups. Fishing vessels use some of the bays around the islands for sheltering from the weather and a fishing vessel route passes in between two islands through a 2.6 km passage. This passage was identified by the steering committee as a potentially dangerous area with grounding risk for large vessel. The islands are also visited by cruise ships that anchor at various sites. The North and East coasts of Steeple Jason were identified as a favoured coast for pleasure boating by the Falkland Island-based sailing community (see Appendix 2) and a number of research expeditions visit each year. A shipping route occurs to the West of the group of islands, with some large cargo ships and tankers passing within 20 km of the islands regularly; some have been recorded passing within 5 km in the last year (near-misses have occurred in the past).

The MSP process can help resolve the identified risks by providing the scientific data needed and recommendations on how best the different activities could use the area while ensuring all economic activities can and local charismatic wildlife is protected.