

Darwin Project Information

Project Ref Number	EIDPO021
Project Title	Implementing an otter action plan for marine environments of Tierra del Fuego, Patagonia
Country(ies)	Argentina
UK Contract Holder Institution	£ 92,240
UK Partner Institution(s)	University of Oxford
Host country Partner Institution(s)	PROFAUNA Organisation
Darwin Grant Value	
Start/End dates of Project	June 2007/May 2009
Reporting period (1 Apr 200x to 31 Mar 200y) and annual report number (1,2,3..)	1 June 2007 to 31 Mar 2008 Annual report n° 1
Project Leader Name	David W. Macdonald
Project website	www.wildcru.org/research/darwininitiative.htm www.profauna.org.ar/nuevo_proyecto.HTM
Author(s), date	

1. Project Background

In Argentina is home to two species of otter: the southern river otter *L. provocax* and the marine otter *Lontra felina*. Two populations of southern river otter have been identified located in northern Patagonia, occupying the Nahuel Huapi National Park and the Limay river, and also in southern Patagonia, occupying the coast of the Beagle Channel of Tierra del Fuego and De los Estados Island. The second Patagonian otter, the marine *Lontra felina* was also thought to be found in the southern area. In the original project conducted between April 2004 and April 2007, we studied the population of *L. provocax* in freshwater environments which allowed us to propose an action plan for inland freshwater conservation in Northern Patagonia.

In the post-project phase we aim to evaluate the current status of the two Patagonian otters on the marine coast of the Beagle Channel in the southern region of Argentinean Patagonia. This includes assessment of the factors regulating otter distribution in this area, and the development of a plan for integral management of the coastal habitats of Beagle Channel and De los Estados Island. These objectives are directly linked to the broader purpose postulated for the original Darwin project: "To protect the vertebrate biodiversity of Argentina's Andean-Patagonian region".

Research

The research objectives of the post-project phase are:

- 1) To confirm the distribution of otters along the coast of the Beagle Channel. This will clarify and confirm whether the conservation status of *L. provocax* should be re-classified from 'endangered' to 'vulnerable'.
- 2) To search for evidence of the presence of *L. felina* in order to evaluate the magnitude of its apparently radical decline in Argentina.
- 3) To estimate the degree of use of otter burrows by invasive mink in order to evaluate their impact on marine otter populations.
- 4) To estimate resource availability and evaluate the threats for otter conservation. This information is necessary for developing an action plan for marine otters in Argentina.

We began with a survey (Oct 2007-Mar 2008) of the Beagle Channel coastline. We used a standard method, refined from our original project, based on searching for signs in 600m segments of the coast. In each transect, we counted dens, described local characteristics of the coast, counted prey remains, collected scats and conducted bird censuses. Three types of analysis will be conducted on these data (May-Sept 2008): GIS analysis will be conducted relating results of the survey to data extracted from satellite images and maps; genetic analysis of scats will be used to discriminate different species and to estimate genetic variability of the population, and diet analysis will determine food requirements.

Action

The objectives of the action component of the project are:

- 1) To coordinate otter conservation activities between Chilean and Argentinean experts and managers.
- 2) To formulate an action plan for otter conservation in marine environments.
- 3) To train a team of biologists, guards and managers for future monitoring of coastal environments.
- 4) To coordinate the action plan with stakeholders and initiate its implementation.
- 5) To use the otter action plan as the starting point for a mixed management project for the Beagle Channel coast.

The methods will involve: a bi-national meeting organised to discuss general strategic criteria and future common actions for otter conservation (Apr 2008); development of a draft action plan from data obtained by the research component (Feb 2009); organisation of a workshop for presentation and discussion of the plan with stakeholders (Mar 2009), and formulation of a broadly-based biodiversity management project for the Beagle Channel coast during the stakeholder workshop. With its history of British colonisation, and the Anglo-Argentine ancestry of several current land owners who are especially influential in contemporary conservation along the Beagle Channel, the involvement of the Darwin Initiative is particularly appropriate. The link between these British settlers, the local (now extinct) Fuegian Indians, and the then abundantotters of both species is related in Lucas Bridges' enthralling book, "The Uttermost Part of the Earth" (1949).

Dissemination and training

The objective of this section is to inform a wider public about the project. It is intended that the following outputs will be produced: two internet newsletters, three local press releases in Argentina, three publications in peer reviewed journals, three presentations in conferences, and a book of the action plan.

A team of six people (two biologist students, two guards and two managers) will be trained to carry out future biodiversity monitoring of the coast and to analyse data on the distribution and use of resources.

2. Project Partnerships

Team composition for post-project phase

DW Macdonald (WildCRU) is the general coordinator and MH Cassini (PROFAUNA Organization) coordinates all local work.

First year field work was conducted by MH Cassini and D Centrón (University of Buenos Aires), and local partner collaborators. Second year field work was conducted by L Fasola (WildCRU) and A Harrington (WildCRU).

The genetic team consists of D. Centrón (leader, University of Buenos Aires), JI Tunez (post-doc, Argentinean Research Council) and M Nardelli (undergraduate student, University of Luján).

The diet analysis will be conducted by two undergraduate students: MC Gozzi and J Lopez (University of Luján).

GIS analysis will be conducted by JI Tunez and MH Cassini.

Partnerships with local conservation agencies

Conservation issues in Tierra del Fuego and nearby islands from Argentina are dealt with by three main offices:

- 1) Departamento de Fauna (Wildlife Department of Tierra del Fuego)
- 2) Dirección de Planeamiento y Gestión de Áreas Protegidas (Protected Areas Department of Tierra del Fuego)
- 3) Parque Nacional Tierra del Fuego (Tierra del Fuego National Park, from the Park network that depends on a national office).

The Wildlife Department is a small office with only four members at the moment: the present head Ing. Diego Valenzuela (the previous one Regina Silva, was dismissed in October 2007), one administrative employee, one zoologist, and one technician. They handle relatively few activities, mainly plans for beaver control, minimal hunting regulation, ideas on sustainable use of guanacos and a few other activities. The Protected Area Department is also a small office with few agents directed by Lic. Nora Lokemeier. This office is more active e.g. in the last few years they have created the first three provincial

protected areas: one in the Atlantic coast as a RAMSAR site to protect migratory birds, one in the heart of the Tierra del Fuego and a third one in De los Estados island (Figure 1). They have also presented an excellent project to the political authorities for transforming Península Mitre into a protected area. As part of the network of National Parks, Tierra del Fuego National Park has a healthy and effective organisation. The Director of the Technical and Research office of this Park is Lic. Laura Malmierca, and with her collaborator Lic. Emilce Gallo they coordinate the research and monitoring of wildlife within the Park.

Dr. Marcelo Cassini, President of PROFAUNA organisation and local partner of this post-project phase, has developed strong partnerships with all these three institutions and their members, as it will be explain in the following sections. They are already working together in data collection and will produce important outputs (action plans and monitoring programs) for the future of otters in Southern Patagonia and for the preservation of nature in the coast of the Beagle channel.

Partnerships with local research institutions and other projects

The only research institute in Tierra del Fuego is named CADIC and depends on the Argentinean Research Council. We have consulted several of their researchers for information on different topics: distribution of fish and crustaceans, degree of pollution in Ushuaia harbour, geomorphology of the coast and other subjects. The strongest collaboration was achieved with the 'Ecology of Top Predators Group' headed by Adrián Schiavini. The activities organised with this group will be described below.

We invited C. Bonacic, to visit Ushuaia in November. He is head of Patagonia Natural, a wildlife research group from Chile. He runs a project on mink invasion in Navarino Island,' on the other side of Beagle channel and he is the local partner of another Darwin Initiative Project: Capacity Building for Temperate Rainforest Biodiversity Conservation in Chile'. A fruitful partnership was born from his visit. We invited another Chilean researcher, W. Sielfeld, who has conducted some of the most extensive surveyed on marine coastal mammals in Southern Chile. We agreed to work in collaboration with the aim of understanding the links between Argentinean and Chilean populations of otters. He will provide us with samples for genetic analyses.

We also worked in collaboration with the Department of Microbiology of the Faculty of Medicine of the University of Buenos Aires, from where D. Centrón is a lecturer and researcher.

3. Project progress

3.1 Progress in carrying out project activities

Original project implementation timetable for the reported period (10 months)		
Date	Financial Year	Key milestones
Jun-Sep 2007	Apr–Mar 2007/08	Project planning, project announcement, selection of three students, two guards and two managers, preliminary training.
Oct 2007		Six month report, travel to UK by main local partner and attendance of the IUCN Xth International Otter Colloquium 2007 in South Korea.
Nov 2007		Travel to Argentina by the project leader, bi-national meeting
Dec 2007-Apr 08		First year report, field work, training of one student, two guards and two managers.

At the beginning of the project, we travelled twice (June and August 2007) to Ushuaia town for in-situ organisation. We organised different aspects of the logistics, including boat and van rentals, booking of hotels and meeting rooms, booking of tickets for workshop participants and purchasing of minor equipment. We also interviewed several stakeholders and we organised collaborations and coordinated work. These individual meetings were very useful because we received support from many institutions for the project. Some relevant supporters were:

1. Mrs. Goodall who allowed us to use her strategically located farm as base for field work
2. Dr. Schiavini agreed to organise a conference meeting at the CADIC for 14th November.
3. Lic. Malmierca, provided us with the results obtained by her team during last summer on otter distribution within the National Park, and agreed to continue with the already established collaboration and training of two members of her team.
4. Lic. Lokemeyer agreed to send to us all the documents related to management of resources and conservation of wildlife and environments of the coast of the Beagle Channel.
5. Lic. Silva agreed to incorporate two members of her agency into our team who will conduct field work during 2008, and provided us with a conference room for our stakeholder meeting.

At the beginning of the project, we also announced the project on the webpages of PROFAUNA organisation (www.profauna.org.ar) and informed local stakeholders by e-mail.

Two students from the previous projects were selected to continue in this one (Laura Fasola and Ana Cecilia Gozzi), two more students were selected (Maximiliano Nardelli and Jonatan Gomez), two guards were incorporated in the team of the National Park and trained to monitor the coast of the Park (Gques. Cortés and Verna), several managers received training during the organised meeting in November (see below) and the new director of the Wildlife Department (Diego Valenzuela) received field training with the agreement that he would pass on this training to other members of his group.

Marcelo Cassini (main local partner) and Daniela Centrón (coordinator of genetic work), travelled to UK and met the project leader (David Macdonald), and several members of the partner institution (Wildlife Conservation Research Unit, University of Oxford). They also visited another leading institution on conservation affairs (Institute of Zoology, Zoological Society of London). In the latter meeting, Cassini and Centrón interviewed two specialists in molecular conservation (Dada Gotelli and J. Wang) and discuss molecular techniques applied to the samples collected in this project.

We presented a total of four papers in scientific meetings. M. Cassini attended the Annual Meeting of the British Ecology Society, held in Glasgow in September 2007 and presented the following work: 'Invasion of North American mink in Argentinean Patagonia: degree of expansion and impact on native prey'. L Fasola attended the IUCN Xth International Otter Colloquium 2007 in South Korea and presented three papers: (1) Diet of Southern river otter in Argentinean Patagonia, (2) Coexistence of North American mink and Southern river otter in Patagonia, and (3) Distribution of macro-crustaceans in Argentina Patagonia: multiple scale analysis of the role of resource availability in wildlife conservation.

The leader of the project, D Macdonald, travelled to Tierra del Fuego in November 2007, as originally planned. The meeting originally planned for November was organised from 13-15th of that month, with the following activities:

- Day 1: Workshop with local stakeholders: From 1000 to 1700h at the Centre of Pisciculture, meeting with members of the three local institutions for final coordination of future work and discussion on the implementation of a exit strategy for wildlife conservation of the Beagle channel coast.
- Day 2: Conference meeting at the CADIC institute: From 1000 to 1700h, four plenary conferences by D Macdonald, W. Sielfeld, C. Bonacic, and M Cassini.
- Day 3: Workshop with Chilean researchers, and visit to sites of otter habitat.

This meeting was a great success and it was announced in several media, including the local TV. It allowed a fruitful interaction between local, national and international stakeholders.

Cassini and Centrón (who also acted as field assistant) conducted three field campaigns in November 2007, before the meeting, and in January and March 2008. A huge survey effort was carried out and all accessible areas were surveyed on the Argentinean coast of the Beagle channel, as was originally planned. The new head of the local Wildlife Department was trained during these campaigns. The coast of the National Park was surveyed by Emilce Gallo and her team from the National Park, when two guards were trained. They conducted three campaigns in winter 2007, spring 2007 and summer 2008. The objective and results of these surveys will be described below.

The genetic team was formed with D. Centrón (leader), JI Tunez (to be incorporated as a post-doc from April 2008, and working part-time on this project) and M Nardelli (undergraduate student). Nardelli received several months of training and initiated the analysis of the faeces samples of this project in November 2007. He will continue working during 2008. The objective and methodology of the genetic work will be described below.

L Fasola won a Darwin Initiative fellowship and travelled to UK in April 2007, where she will stay until May 2008. Working at the WlldCRU with the project leader, she receives different types of training. She is specially being training in the use of data logging technology, which will be used in an expansion of

this project. In UK, she initiated a project on mink applying these methods and she will attempt to use the same approach with mink in the Beagle channel. This will be initiated in November 2008 until March 2009. AC Gozzi continued working in diet analysis and will present her undergraduate thesis during May 2008. She has already delivered the manuscript to the University of Lujan authorities. During April and May, she will also collaborate in training the new undergraduate student Jonatan Gomez.

3.2 Progress towards Project Outputs

1. We have fulfilled all the outputs planned for the first year of this project. We trained three students (we will train one more). Two guards were trained and one manager, with several others attending a meeting, and the agreement of the head of the local wildlife Department to pass on our training to another agent.
2. An internet newsletter was published on the webpage of PROFAUNA organisation (www.profauna.org.ar) and the same information was published in a newspaper called Diario del Fin del Mundo (The End of the World): www.eldiariodelfindelmundo.com/ver.php?modulo=ver_noticia&id=14103.
3. We attended two conferences and we made four presentations.
4. The leader of the project visited Tierra del Fuego
5. An international workshop was organised.

3.3 Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Year 1 Total	Total to date	Total planned from application
4	3 students	4	4	3
24	8 training weeks each	24	24	24
6A	2 guards, 2 managers	3	3	4
6B	4 training weeks each	8	8	16
16A	1 internet newsletter	1	1	1
15B	1 local press release	1	1	1
14B	1 Colloquium attendance	2	2	1
8	1 week of project leader in Argentina	1	1	1
14A	1 international meeting organised	1	1	1

Table 2 Publications

Type *	Detail (title, author, year)	Publisher	Available from (eg contact address, website)	Cost £
Journal	Daniela Centrón, Benjamín Ramirez, Laura Fasola, David W. Macdonald, Claudio Chehébar, Adrián Schiavini, and Marcelo H. Cassini (2008) Diversity of mtDNA in Southern River Otter (Lontra provocax) from Argentinean Patagonia	Journal of Heredity	http://jhered.oxfordjournals.org/cgi/reprint/99/2/198?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&fulltext=cassini&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT	
Note	Cassini MH (2007) Las nutrias fueguinas: un tesoro escondido que merece ser descubierto (Otters from Tierra del Fuego: a hidden treasure that deserves being discovered)	Newspaper 'Diario del Fin del Mundo	www.eldiariodelfindelmundo.com/ver.php?modulo=ver_noticia&id=14103	
Abstract	Invasion of North American mink in Argentinean Patagonia: degree of expansion and impact on native prey		2007 Meeting of the British Ecological Society	
Abstract	3 abstracts (listed above)		IUCN Xth International Otter Colloquium 2007	

3.4 Progress towards the project purpose and outcomes

The purpose of the project was to protect the vertebrate biodiversity of Argentinean Patagonia both by protecting the marine populations of two endangered otters, and initiating a plan of multiple management actions for the coast of the Beagle Channel. In Section 1 we described three types of outcomes expected when looking for this purpose:

1. Research
2. Action
3. Dissemination and training

Here, we will describe the progress towards these outcomes.

Research

We finished a very intensive survey of the coast of the Beagle channel. We conducted 130 habitat samples (defining a habitat sample as the survey of a portion of coast that is morphologically distinct from the surroundings, with a variable length between tenths of meters to several kilometres) along the 130 km of Argentinean coast of the Beagle Channel. We found signs of otters in five sectors of the coast, mainly faeces. We need to confirm genetically which species correspond to each faeces. If we confirm that the faeces correspond to *L. provocax*, this may allow us to propose a change of status for this species. If any of these scats correspond to *L. felina*, it will be the first evidence of the presence of this species in Tierra del Fuego in many years. We also found many new different sectors with signs of otters in Lapataia Bay, the originally unique area for *L. provocax*, has now.

We also analysed the interactions of otters with other carnivores: mink and foxes. We incorporated foxes in the analysis (it was not in the original proposal) because local wildlife conservation agents expressed their worries over the status of the endemic red fox (*Pseudalopex culpaeus lycoides*) and on the impact of the introduced grey fox (*Pseudalopex griseus*). We analysed habitat and diet overlap, including the use of common burrows. We found some evidence, which still required confirmation, that not only mink can use otter burrows but also foxes.

We collected 68 otter faeces, 42 mink faeces, and 39 fox scats. We collected them from 130 km of coast, where the species occur sympatrically. This is a good sample size for analyse diet niche overlap. We also obtained faeces collected seasonally for several years, so we will continue with the analyses of food requirements of otters and the potential anthropic impact on food availability. Diet analysis will start as soon as the genetic staff obtain all necessary DNA from the faeces (because samples must not be manipulated to avoid DNA contamination)

We initiated the genetic studies in November 2007 in the new laboratory that we opened in the University of Lujan. The last few months were spent developing the techniques in the new lab. The main purpose of these studies is to establish the distribution of species based on species identification from scats. An additional objective is to compare genetically the otter populations from different locations within Southern Argentinean Patagonia, and also with Southern Chile. It is highly probable that Chilean researchers will provide us with samples. It will be also important to evaluate if the invasive grey fox is interacting negatively with the otters, so it will be necessary to use molecular fingerprinting to distinguish between red and grey foxes. It will be also interesting to analyse genetically what is the origin of the mink introduced in Tierra del Fuego.

Suitable habitats for *L. provocax* and *L. felina* have already been defined by W Sielfeld in his studies in Chilean channels. We will compare his results with ours in Argentina. We will then use GIS techniques to estimate the amount of suitable habitat for both species in the coast of the Beagle channel. These are key data for the design of a protected area in the region and for defining an action plan for these species.

Action

This is one of the main outcomes of the projects and we are doing the best of the possible jobs. As we explained previously we work with all the agencies involved in conservation of wildlife in Tierra del Fuego. We have already organised a permanent monitoring system of the coast of the National Park. We have also trained and got the agreement from the local Wildlife Department to carry out a similar monitoring program in two other areas of otter distribution. We will develop not only an action plan for otters, but we also plan to interact with Nora Lokemeyer for the development of a proposal for the creation of a protected area in the province for all the coast of the Beagle channel in Argentina. In summary, we are making concrete progress to increase the capacity of local agencies and undergraduate and graduate students and we will leave as a strong legacy to monitoring programs and an action plan for otters and a pre-project for the creation of a protected area.

Dissemination and training

Tierra del Fuego is a small province with low population density. As we explained in Section 2, public institutions related to conservation issues have very few members and low budgets. In the full-day workshop that we organised for these people in November, we received nine attendants, and they represented almost all the personnel dedicated to conservation issues in Ushuaia. Thus, this workshop served as a preliminary training for most local stakeholders. Apart from that, we have active meetings and field campaigns with E. Gallo and D Valenzuela who will be in charge of future monitoring programs. We are also training a total of five students: three undergraduate, one graduate and one post-doc, from the University of Lujan and the University of Buenos Aires (there is no local university). With the CADIC, which is the local research institute that depends on the Argentinean Research Council, we have organised that L. Fasola will continue with her work as a post-doc of A. Schiavini and D. Macdonald. Schiavini is the head of the Wildlife Research Group of the CADIC, and at present is the Head of the whole institute.

3.5 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

Tierra del Fuego Province and nearby islands have four protected areas (Figure 1). Paradoxically, the region that probably shows the highest risk of degradation in the future is not protected. Most population growth and productive economical activities are developed in the coast of the Beagle channel. Thus, the region urgently requires the development of complex integrated strategies for management of coastal habitats that include pollution control, policies for sustainable fishery, and sustainable tourism.

Otter are good indicators of the habitat quality. By showing that *L. provocax* is occupying a relatively large range of coast, we can use it as an emblem of the importance of conserving the present biodiversity of this region. We are working with all the possible stakeholders to provide them with all the technical elements required to be successful in implementing the action plans that we will develop.

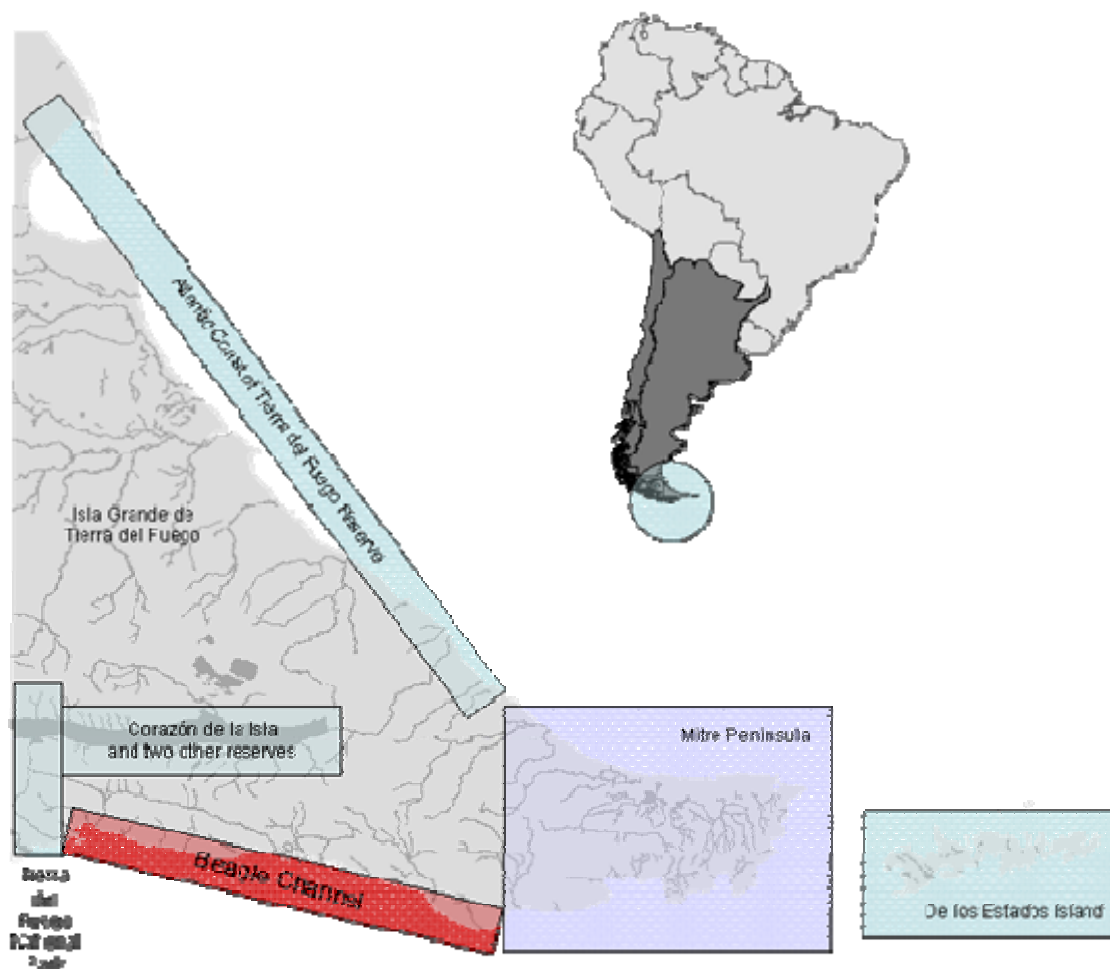


Figure 1. Protected areas in the study region. At present there are 5 protected areas: 1. Atlantic Coast of Tierra del Fuego, 2. Corazón de la Isla Reserve and two other small reserves in the centre of the island, 3. Tierra del Fuego

National Park, 4. De los Estados Island Protected Area, and 5. a proposal under law consideration of a reserve at Mitre Peninsula. The Argentinean coast of the Beagle Channel, in red, still lacks of an integral plan for protection of its coast.

4. Monitoring, evaluation and lessons

The first campaign that Cassini and Centrón conducted in Tierra del Fuego was in January 2005, as part of the original project that included most of Andean Patagonia. The surveyed area of that project was very big and it was concentrated in freshwater environments. As a consequence, the data collected in the coast of the Beagle channel were scarce. However, additional trips allowed us to systematically travel to Tierra del Fuego for the last four years, and in every trip, we interviewed local stakeholders and showed them our commitment to research and conservation of the region. People in these remote areas are logically difficult.

We also built an efficient team of people working simultaneously with different approaches and methods: molecular techniques, geographic information systems, diet analysis techniques, field work. We perfected these techniques to optimally work with the type of data that this project requires.

Field work in this region sometimes is not an easy task. Navigation can be dangerous because the Beagle channel is characterized by sudden and unpredictable changes of weather. Terrestrial survey is also difficult. Otters live on rocks and humidity in this region makes walking on them. We learned that each day of survey requires time and effort and frequently we did not get any reward because we did not find signs of otters.

The project leader and the general local coordinator met for the first time in 1990, when Cassini initiated a post-doc in Oxford University with John Krebs. Their first project together in Patagonia started in 1996 and it was a survey of mink in Victoria Island, in the middle of Nahuel Huapi lake in Northern Patagonia. Since then, they have consolidated an academic link between a British and an Argentinean research team that lasts to the present day. This type of long term partnership between research groups of different countries are probably the best strategy for successful endeavour in the difficult task of conservation biology in Southern Hemisphere.

5. Actions taken in response to previous reviews (if applicable)

No applicable

6. Other comments on progress not covered elsewhere

No other comments

7. Sustainability

Sustainability will surely be the most important outcome of this project. As was already described, we were able to organise, with the only three local conservation agencies that each of them, continue working for the conservation of otters and their environments after the completion of this project: The National Park (Laura Malmierca and Emilce Gallo) will continue with seasonal surveys of their coast, the Wildlife Department (Diego Valenzuela) will initiate the same type of surveys in two strategic sites that will cover most of the Argentinean coast of the Beagle Channel. The Protected Area Office will collaborate in the development of a project for the creation of protected area that will involve all the Argentinean coast of the Beagle Channel.

8. Dissemination

We have already produced several dissemination products: one internet newsletter, one local press release in Argentina, four presentations in conferences, four conferences given by specialists in a public cycle that we organised in Ushuaia. We expect to produce more of these reports and publications.

The National Park will use the otters as an emblem for the park. For the moment, our work for the future is to guarantee continuity of monitoring program and area protected creation. In the final stakeholder

workshop we will emphasize the role of dissemination of activities when the project finishes and discuss financial possibilities for that.

9. Project Expenditure

Table 3 Project expenditure during the reporting period (Defra Financial Year 01 April to 31 March)

Item	Budget (please indicate which document you refer to if other than your project application)	Expenditure	Balance
Rent, rates, heating, overheads etc			
Office costs			
Travel and subsistence			
Printing			
Conferences, seminars, etc			
Capital items/equipment			
Others			
Salaries (specify)			
TOTAL			

In the first year, travel and subsistence cost were reduced than expected due to three main reasons:

- Some expected expenditures were covered by other resources (for example, attendance to Korea Symposium – around 2000 pounds - was financed by the organisers)
- The most expensive expedition (with a cost of 1000 pounds per day during 10 days) was suspended because the only sailing boat and sailor with the expertise required for this dangerous navigation was busy with tourism, and weather conditions complicated the use of other services. The objective of this suspended trip was to survey an area that was outside the Beagle Channel: the southern coast of Peninsula Mitre continues the coast of the Beagle Channel. The reason to include area outside the geographical scope of the project was to increase the chances of finding signs of *Lontra felina*. Its suspension did not alter the purpose of the project, which is focused on the Beagle channel.

10.OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

[I agree for ECTF and the Darwin Secretariat to publish the content of this section](#) (please leave this line in to indicate your agreement to use any material you provide here)

Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2007/08

Project summary	Measurable Indicators	Progress and Achievements April 2007 - March 2008	Actions required/planned for next period
<p>Goal: To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve</p> <p>The conservation of biological diversity,</p> <p>The sustainable use of its components, and</p> <p>The fair and equitable sharing of the benefits arising out of the use of genetic resources</p>		<p>Obtaining new knowledge on the distribution and biology of marine populations of endangered otters in Argentina.</p> <p>Obtained the commitment of local wildlife agents for permanent monitoring of the wildlife of the Beagle channel and creation of a new protected area</p>	<p>(do not fill not applicable)</p>
<p>Purpose To protect the vertebrate biodiversity of Argentinean Patagonia both by protecting the marine populations of two endangered otters, and initiating a plan of multiple management actions for the coast of the Beagle Channel.</p>	<p>New knowledge regarding the present distribution of <i>Lontra provocax</i> and <i>L. felina</i> in Argentinean marine habitats and the resource requirements of both species.</p> <p>Increased capacity for researchers, wildlife managers and Park wardens to implement effective monitoring of otter status.</p> <p>Increased stakeholder commitment on a plan for integrative management of Beagle Channel coasts.</p> <p>Establishment of a flagship conservation initiative in the name and memory of Charles Darwin, capitalising on a unique historical link.</p> <p>Ultimately, prevention of the extinction of <i>L. felina</i> and of the marine stock of <i>L. provocax</i> in Argentina</p>	<p>Field survey done</p> <p>Field training and first workshop done</p> <p>Several meetings with local stakeholders and starting of a monitoring program done</p> <p>In progress</p> <p>In progress</p>	<p>Data processing and manuscript writing</p> <p>Field work guide writing and second workshop organising</p> <p>New interviews with local agents, implementing a final monitoring program and a plan for transforming the Beagle channel coast in a protected area</p> <p>To be done as a result of the same and integration of all previous outputs</p>
<p>Output 1. Training of future Argentinean conservation biologists, along with managers and wardens of the National Parks of Patagonia.</p>	<p>Three undergraduate theses, two guards and two managers will receive training. Students will work for one year, while guards/managers will</p>	<p>We incorporated four students to the project, four members of National Park are involved in a seasonal monitoring of the coast of the Park and the head of the Wildlife Department of Tierra del Fuego received training that will allow initiating a monitoring program in other sectors of the Beagle channel after the completion of</p>	

Education of stakeholders and policy makers via workshops	receive three weeks of field training. Additionally a bi-national workshop will be held with stakeholders.	this project. A bi-national workshop was organised and most stakeholders attended it.
Activity 1.1 Organisation of a bi-national meeting and a stakeholder workshop for discussion and dissemination of work.		Done
Output 2. Action plans and other research products for the conservation of vertebrate biodiversity in Patagonia. Academic outputs.	An action plan for the conservation of marine populations of otters; a draft action plan for the conservation of vertebrate biodiversity in Tierra del Fuego. A training guide for monitoring marine coasts. A computer database. 3 manuscripts for peer-reviewed journals, and 3 conference presentations.	In the last four months we conducted field research and we finished with data and sample collection required for the study on the marine population of otters and their interactions with invasive species. In the next months, we will analyse these data and produce the corresponding academic and management outputs.
Activity 2.1. Detailed survey of the coast of the Beagle Channel.		Done
Activity 2.2. Sample and data processing with GIS, molecular techniques and diet analysis.		Sampled done, data processing in progress.
Output 3. Diverse methods of disseminating results.	Three local press releases in Argentina. two website newsletters. Two books (printed and pdf versions) for the dissemination of action plans.	One local press release and two website newsletters done.
Activity 3.1. Development of a draft action plan.		It will be finished at the end of second year.

Annex 2 Project's full current logframe

1. Project summary	2. Measurable indicators	3. Means of verification	4. Important assumptions
<p>Goal:</p> <p>To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve</p> <ul style="list-style-type: none"> • the conservation of biological diversity, • the sustainable use of its components, and • the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources. 			
<p>Purpose</p> <p>To protect the vertebrate biodiversity of Argentinean Patagonia both by protecting the marine populations of two endangered otters, and initiating a plan of multiple management actions for the coast of the Beagle Channel.</p>	<p>New knowledge regarding the present distribution of <i>Lontra provocax</i> and <i>L. felina</i> in Argentinean marine habitats and the resource requirements of both species.</p> <p>Increased capacity for researchers, wildlife managers and Park wardens to implement effective monitoring of otter status.</p> <p>Increased stakeholder commitment on a plan for integrative management of Beagle Channel coasts.</p> <p>Establishment of a flagship conservation initiative in the name and memory of Charles Darwin, capitalising on a unique historical link.</p> <p>Ultimately, prevention of the extinction of <i>L. felina</i> and of the marine stock of <i>L. provocax</i> in Argentina</p>	<p>Publication of theses, papers accepted by peer-reviewed journals, technical reports produced for National Park and partner organisations.</p> <p>Management plans, training and implementation guides, computer databases, fieldwork reports, workshop records, and formal agreements with National Park Administration and local environmental agencies.</p> <p>Stakeholder workshops organised every two years.</p> <p>Development of an inter-disciplinary, cross-cutting action plan to be adopted by the Planning Department of the Tierra del Fuego government.</p>	<p>National and local authorities maintain their present support for our CBD activities and continue to be prepared to incorporate our new management proposals.</p>

<p>Outputs</p> <p>Training of future Argentinean conservation biologists, along with managers and wardens of the National Parks of Patagonia. Education of stakeholders and policy makers via workshops</p> <p>Action plans and other research products for the conservation of vertebrate biodiversity in Patagonia.</p> <p>Academic outputs.</p> <p>Diverse methods of disseminating results.</p>	<p>Three undergraduate theses, two guards and two managers will receive training. Students will work for one year, while guards/managers will receive three weeks of field training. Additionally a bi-national workshop will be held with 30 stakeholders.</p> <p>An action plan for the conservation of marine populations of otters; a draft action plan for the conservation of vertebrate biodiversity in Tierra del Fuego. A training guide for monitoring marine coasts. A computer database. Three manuscripts for peer-reviewed journals, and three conference presentations.</p> <p>Three local press releases in Argentina. Two website newsletters. Two books (printed and pdf versions) for the dissemination of action plans.</p>	<p>3 undergraduate theses submitted/defended. Student performance reports, workshop participant records.</p> <p>Management plans, field implementation and training guides and computer databases sent to the DI.</p> <p>Papers and conference abstracts sent to the DI.</p> <p>Copies of all publications and records sent to the DI.</p> <p>Agreement with local agents and National Park administrators.</p>	<p>Students, National Park managers, and stakeholders are available and motivated for training and application of new skills.</p> <p>Journal editors/ conference organisers will accept papers. Newspaper, radio and TV producers will be interested. National Park Administration will be interested.</p> <p>Local press will be interested in conservation problems.</p>
<p>Activities [details in workplan]</p> <ol style="list-style-type: none"> Detailed survey of the coast of the Beagle Channel. Sample and data processing with GIS, molecular techniques and diet analysis. Development of a draft action plan. Organisation of a bi-national meeting and a stakeholder workshop for discussion and dissemination of work. 	<p>Activity milestones (summary of project implementation timetable)</p> <p>Inputs</p> <p>Budget £92,240 over two years</p> <p>Staff: UK project leader, three local partners, three students, three field assistants, occasional training and research assistants.</p> <p>Equipment: Project office, molecular laboratory, diet analysis laboratory, field work equipment, 4x4 van.</p>	<p>Assumptions</p> <p>Availability of equipment.</p> <p>Interest of stakeholders for attending workshops and meetings.</p>	

