

Darwin Initiative: Half Year Report

Project Ref No	EIDPO038
Project Title	High Andes Conservation Without Borders
Countries	Argentina, Bolivia and Chile
UK Organisation	Wildlife Conservation Research Unit (WildCRU)
Collaborator(s)	Fundación YUCHAN, High Andes Flamingo Conservation Group (GCFA), Andean Cat Alliance (AGA).
Project Leader	Prof. Claudio Sillero-Zubiri
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Project website	URL= http://www.wildcru.org/research/research-detail/?theme=&project_id=43

1. Outline progress over the last 6 months (April – September) 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).

Promoting the creation of new conservation areas

a) *In Argentina:* Between April and June the team lobbied intensively for the designation of *Lagunas de Vilama* as a national protected area, holding meetings and workshops with relevant stakeholders:

- At national level: meetings in the cities of Buenos Aires and Salta with Board Director of National Protected Areas (Administración de Parques Nacionales= **APN**) and Environmental Adviser to the Argentine Senator Mr. Morales
- At regional level (Jujuy Province): Meetings in the city of San Salvador de Jujuy with Secretary of Environmental Management and members of the Regional Parliament.
- Local communities: two meetings and one workshop in Vilama (in the towns of Cusi-Cusi and Lagunillas del Farallón), with livestock farmers and 'Warmi' indigenous association of women.
- NGOs and partners: members of the Andean Cat Alliance (**AGA**) Group for the Conservation of Andean Flamingos (**GCFA**) participated of various meetings in Salta and Jujuy provinces, including local community workshops in Abra Pampa and Lagunillas del Farallón.

Under the coordination of Pablo Perovic, the team responded timely to requests of technical support by APN, helping to designate suitable boundaries for the proposed protected area, providing technical information on the pros and cons of various possible categories of protection (National Park, National Reserve, Provincial Reserve), and guidelines for a participatory process of consultation with local communities and authorities. The local communities showed interest in the establishment of a national protected area in Vilama because it would bring protection against the threat of expanding mining operations in the region (these are prohibited within nationally protected areas), as well as government investment in infrastructure such as roads and other public services.

In June, amid political commotion in the run up to general elections in Argentina (these were held in October), members of the National Congress and of the government of Jujuy backtracked their support of the bill for a new national protected area in Vilama. Due to the general elections the process of decision-making has stalled, but the APN maintains interest in the proposal, and the Darwin Initiative team is to resume lobbying as soon as the elected authorities take office in December.

- b) *In Chile:* Magdalena Bennett has been leading activities to assist the Explora Hotel of San Pedro de Atacama to establish a private protected area in the area of Puritama in the triple frontier. Several meetings took place, in Chile and one in Oxford, and additional funding was secured from the Wildlife Conservation Network (USA) by Magdalena Bennett and Jorgelina Marino, to conduct an ecological assessment of the area.

Implementing the Tilcara Agreement. Drawing on the common interest across the agencies signatories to the Tilcara Agreement, the GCFA, a partner of the Darwin project, proposed the implementation of a Ramsar Convention management tool in the triple frontier: the *Transboundary Ramsar Site (TRS)*. The TRS will combine five existing Ramsar Sites, namely: *Lagunas de Vilama* in Argentina, *Los LÍpez* en Bolivia, and in Chile *Sistema Hidrológico de Soncor*, *Salar de Tara* and *Salar de Pujsa*. In practical terms the TRS will result in an ecologically coherent wetland management approach for all five Ramsar Sites, but not on a distinct legal status.

In September the Darwin Project local coordinator, Patricia Marconi (secretary of the GCFA) participated of the “Flamencos without Frontiers Symposium” organized by GCFA in Arica, Chile, where she met the Ramsar Senior Advisor for the Americas, María Rivera. The Senior Advisor suggested that GCFA and its partners submit proposals for the TRS to the Ramsar authorities of each country. Once the relevant authorities in the three countries formally agree to collaborate, they will inform the Ramsar Secretariat of this intent.

Members of the Darwin project have contributed to consolidate the TRS and so far the proposal has been approved by the Ramsar technical focal points of Argentina and Chile, and it has been submitted to the corresponding political focal points in the three countries (i.e. the Foreign Affairs authorities). In Bolivia Lilian Villalba contacted the Biodiversity Direction (**DGB**) authorities, who showed interested in the TRS proposal.

Assessing the distribution and status of highland wetlands and associated wildlife:

- a) *Climate change study case:* evidence of climate changes affecting the high Andes ecosystem, and the highland wetlands in particular, is being assessed from meteorological records and satellite images by Magdalena Bennett and Jorgelina Marino. Rainfall data from 27 weather stations in Chile showed that rainfall decreased over the last 40 years in some localities, but not consistently across the region. Rainfall patterns instead largely follow variations in the Southern Oscillation Index (i.e. El Niño - La Niña phenomenon). In order to assess concomitant changes in vegetation over the last three decades, satellite images were processed and the Normalized Difference Vegetation Index (NDVI) calculated for dry and wet years. The preliminary results are that changes in wetland vegetation were unrelated to rainfall variations (dry versus wet years), indicating the importance of groundwater sources for these critical wetlands, in addition peat-like formations themselves with capacity to retain water for longer time than the sparse grasslands and bushlands that characterize the region.
- b) *Water extraction study case:* Crucial data has been collated on water extraction for the mining industry and urban centres in the Chilean side of the triple frontier. Over the next few months Magdalena Bennett will conduct extensive field surveys to gather groundtruthing data necessary to interpret satellite images and aerial photos of the areas affected. Her study will show how water extraction has affected the wetlands of the region over the last three decades.
- c) *Livestock grazing study case:* the Darwin Initiative has provided academic and financial support to two undergraduate students from the University of Chile, currently conducting their theses on the impact of livestock upon wetlands in Salar de Tara, in Los Flamencos National Reserve. Their research will explore the use of *bofedales* (wetlands) by local communities, including interactions between llamas and vicuñas, and their carrying capacity for livestock. An MSc student will conduct a similar study in the larger wetlands of major REA in Bolivia.

d) *Carnivores and prey*: Two undergraduate students started research projects in Vilama, Argentina, supervised by Pablo Perovic. They will assess the dependency of Andean cats and other carnivores upon viscachas (large-size rodents), certain rocky formations, and the proximity to wetlands. These studies were designed by Jorgelina Marino to test hypothesis developed during the original Darwin Project and to validate the importance of habitat corridors for the connectivity of wildlife populations cross frontiers. Jorgelina Marino and Pablo Perovic secured additional funding for these activities from the Wildlife Conservation Network of USA.

Understanding the socio economics of local livelihoods: The study conducted with local communities in Vilama by the graduate student Amelia Clark has been completed. It included analyses of interviews, surveys and participatory activities to identify local livelihoods and changes in human demography in relation to mining and tourism initiatives. The information is now being combined with the results of the latest National Census, to provide a more updated picture of the socio-economic reality of these local communities, including the impacts of local businesses and tourism projects supported by the Interamerican Development Bank (IDB).

Mitigating the impacts of unregulated tourism: The off-road mitigation campaign '*Huella Unica*' continued over the last 6 months with the distribution of brochures and posters for tourists and tour operators visiting Los Flamencos and Eduardo Avaroa National Reserves. Progress towards the implementation of ethical signalling included the design and imminent installation of road signs in *Salar de Tara* and *Salar de Pujsa* in Los Flamencos National Reserve, and the design of signs for Eduardo Avaroa Reserve (**REA**) - negotiations with REA authorities continue to implement signalling in the Reserve. An updated map of the disturbances due to off-road driving in REA was completed after detailed field surveys, and the results were communicated to the relevant authorities.

Presentations in conferences and publications:

- *Spatial analyses in support of wildlife conservation across frontiers in the High Andes*. Spatial Ecology & Conservation, International Conference, 5- 7 Sep 2011, Birmingham University, UK.
- *Intercambio de experiencias de turismo y conservación basada en comunidades en el altiplano argentino-chileno and Patrones temporales y espaciales de las abundancias de *Phoenicoparrus andinus* y *P. jamesi* e implicancias para su conservación efectiva*. Simposio Flamencos sin Fronteras, 6-8 Sep 2011, Arica, Chile.
- *Andean cat biogeography and conservation: an application of a niche model*. Advances in Biogeography Conference. 23-25 Sep 2011. University of Oxford, UK.
- Short communication published in *Cotinga: First confirmed nesting record of Andean Flamingo *Phoenicoparrus andinus* in Catamarca, Argentina, and remarks on its breeding ecology*. Marconi, P & R. Clark. 2011. The paper reports a new nesting site for the species and updates the current knowledge on breeding activity throughout the species geographical range, including the Triple Frontier.

2. Give details of any notable problems or unexpected developments 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.

Major components of this project depend on our capacity to lobby for political willingness and support towards the conservation of natural resources in the triple frontier. Thus the project is particularly sensitive to political changes, and the elections conducted at local, regional and national levels in Argentina virtually paralyzed any official initiative during 2011. For example, the bill presented to the National Senate for the creation of a Protected Area in Vilama has been discontinued. Once the elected authorities take office in December, the project will resume activities with renewed energy.

Major political changes in Bolivia also affected the project activities in Eduardo Avaroa National Reserve (REA) and the validation of the Tilcara Agreement of International Cooperation. The administration of the Reserve changed towards a co-management between local communities and SERNAP (the national authority in charge of protected areas), and the SERNAP authorities were removed last September. The team in Bolivia is actively resuming contact with the new authorities.

Changes in the administration of REA also contributed to delays in the study of wetland uses by local communities, soon to be started by a student from a local university. In Argentine too undergraduate studies were delayed, after negotiations with the University of Cordoba failed following lengthy conversations (the reason was that the interests of the project and those of the local supervisor could not be reconciled). Two students from University of Jujuy are now implementing the researcher projects planned for Vilama.

Have any of these issues been discussed with LTS International and if so, have changes been made to the original agreement? No

Discussed with LTS: Not yet

Formal change request submitted: Jointly with this report

Received confirmation of change acceptance: No

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

Yes No

If yes, and you wish to request a carryforward of funds, this should be done as soon as possible. It would help Defra manage Darwin funds more efficiently if you could give an indication of how much you expect this request might be for.

Estimated carryforward request: £10,000

4. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures?

We were negatively affected by Darwin Initiative decision not to honour the project underspend during year 1 of the project. The underspend was the result of bureaucratic delays in setting up agreements with our host partners, largely due to incompetence in University administration. Losing out on over £5,000 of funding will affect our ability to deliver the agreed outcomes of the project in their full potential.

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.

Please note: Any planned modifications to your project schedule/workplan or budget should not be discussed in this report but raised with LTS International directly.

Please send your **completed form by email** to Eilidh Young at Darwin-Projects@ltsi.co.uk. The report should be between 1-2 pages maximum. **Please state your project reference number in the header of your email message eg Subject: 17-075 Darwin Half Year Report**