

The Rufford Small Grants Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. The Final Report must be sent in **word format** and not PDF format or any other format. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. Please note that the information may be edited for clarity. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to jane@rufford.org.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Carolina Natalia Gargiulo
Drojact titla	Conservation status of the Andean Condor (Vultur gryphus) in
Project title	three National Parks of Central Argentina
RSG reference	93.08.09
Reporting period	March 2010 – September 2011
Amount of grant	£ 5790
Your email address	lapaquia@hotmail.com
Date of this report	September 2011



1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not	Partially	Fully	Comments	
	achieved	achieved	achieved		
1) Establish the abundance of the Andean condor population in three National Parks Condorito, Quijadas and Talampaya in Central Argentina.			Yes	Information regarding the abundance and age composition of Andean condor populations in three National Parks in Central Argentina was obtained. This information constitutes the base line for future research regarding the Andean condor in the region.	
2) Implement a censing technique that will allow the analysis of a population trend and show early warning signs in case of a decrease in the population.			Yes	All of the park rangers in Condorito National Park and Quijadas National Park were trained in the censing technique. Basic criteria were established for data gathering, censing-specific worksheets necessary for data analysis and comparison. This is extremely important so that the same methodology may be used, or serve as a guide, for future population studies in other areas.	
3) Contribute to the knowledge of the state of conservation of the species on a local, national and international level.			Yes	This is the first time that there is detailed population data for the Andean condor in the three National Parks located in Central (extra- Andean) Argentina. The results of this study present new information regarding the population abundance of the condor in areas within its distribution which were previously unknown.	

2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

Unfortunately, a simultaneous census of the three National Parks was not possible in fall, winter and spring of 2010, resulting in different dates for each time period. This was due to the limited number of park rangers in each protected area, as well as extenuating circumstances that arose for the project coordinator, park rangers and volunteers (for example, mandatory graduate classes and scientific meetings, park ranger daily activities and undergraduate exam dates for the volunteers). In summer 2010, a simultaneous census of the three parks was made, but due to the weather (rain and/or fog), observations were limited in Condorito National Park.

3. Briefly describe the three most important outcomes of your project.

1) This is the first time that systematic information has been gathered regarding the abundance of Andean condors in the National Parks studied, resulting in a database for these protected areas and



serving as baseline data for future studies. In this study, the maximum abundance of condors was obtained for each of the three National Parks: Condorito National Park had a maximum of 113 individuals in winter 2010, Quijadas National Park had a maximum of 36 individuals in spring 2009, and Talampaya National Park had a maximum of 11 individuals in winter 2010 (Fig. 1 a-c). Even though the communal roosts studied in Condorito and Quijadas are characterised as being used year long, the maximum abundances did not show a seasonal pattern. The dynamics of the study area in Talampaya was very different than the other two parks; it was more common to observe less individuals, usually in flight, with the exception of a few couples exhibiting courtship behaviour and site selection for nesting. Also in Talampaya, several condors were observed eating dead animals that had been run over. These observations allow us to consider Talampaya as an important area for condors used for food and nesting sites.

2) During the census campaigns, volunteers and all of the park rangers in Condorito (Córdoba province) and Quijadas (San Luis province) National Parks were trained. These training sessions established the basic guidelines for census the species, allowing for the comparison with previously recorded data and to ensure the continuity of condor monitoring in the future.

3) Sites frequently used by condors located in the mountains of the provinces of Córdoba, San Luis and La Rioja in Argentina were established from a previously prepared database, which contains information provided by ornithologists, mountain guides, tour guides, park rangers, local population and other bibliography. Therefore, during the development of this project, several of these sites were identified and seasonal observations were made, particularly on a condor nest located in the hills of Córdoba. This nest, for the time being, represents the only known active nest of the species for Córdoba province. These observations contribute to the nesting knowledge of the species in the wild, of which there is scarce information and what little is available is from captive couples and nests located in the Andes, more specifically in Chile and the Argentine Patagonia.







Figure 1. Maximum numbers of condors (totals in black, adults in dark grey, immatures in white and grey for unknown) observed in each seasonal survey during the study in Condorito (a), Quijadas (b) and Talampaya (c) National Parks. The relation adult/immature is shown in parenthesis. *: significant differences (X^2 , gl = 1, p < 0.05) in the number of adults with respect to immatures.

4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).

a) During the project, the park rangers in each National Park under study actively participated in conducting condor censuses and provided logistical support for each seasonal campaign.

b) Outreach activities were conducted with the results obtained during the condor census in 2006 and 2008-2010 in the National Parks under study. These activities were aimed at the scientific community, rangers, tour guides, students, teachers and residents of towns near the National Parks, as well as in a scientific meeting held in Buenos Aires and San Juan provinces, at the Visitor Center at Condorito National Park, the city of Villa Carlos Paz in Córdoba and at Ceferino Namuncura and Pagliari Schools, both located in the Pampa de Achala Provincial Water Reserve in Córdoba.

5. Are there any plans to continue this work?

In conjunction with the park rangers at Condorito National Park (Córdoba), we are evaluating the possibility of establishing a fixed date for condor censuses in the Condorito National Park once a year in order to obtain information regarding long term variations in the abundance of species in the area.

6. How do you plan to share the results of your work with others?

The results obtained were shared through talks aimed at parks rangers at each National Park, at schools near Condorito, at the Municipality of Villa Carlos Paz (Córdoba), at tour guides, students, teachers and residents near the Condorito National Park. Reports were presented to the National Parks Administration of Argentina (APN) and the Ministry of Science and Technology of the Province of Córdoba. The results were published in two scientific conferences: 1) IV Reunión Binacional de Ecología-XXIV Reunión Argentina de Ecología, Buenos Aires; oral presentation: "Long –term variation in the Andean Condor (*Vultur gryphus*) population in the Condorito National Park, Córdoba, Argentina", authors: Gargiulo, C.N. and Bucher E.H.; and 2) II Reunión Conjunta de las Sociedades de Biología de la República Argentina, San Juan, poster: "Nesting in a wild population of Andean Condor in the Cerro Blanco Wildlife Refuge, Córdoba", authors: Gargiulo, C.N. and Piedrabuena, J. Also, two scientific publications are currently being drafted for future publication: 1) Gargiulo C.N. & Bucher E.H. Andean Condor (*Vultur gryphus*) population characteristics in three National Parks of the extra –



Andean mountain range in Central Argentina; and 2) Gargiulo C.N. & Piedrabuena J. Contribution to the knowledge of the Andean Condor (*Vultur gryphus*) breeding behavior in the extra – Andean mountain range in Central Argentina. Furthermore, the information obtained during the proyect has allowed the finalization of the Ph.D. thesis of the project coordinator (Carolina Gargiulo), which will be defended in March 2012 at the Buenos Aires University, with copies deposited in the libraries of said university, as well as at the Center of Applied Zoology of the National University of Córdoba, National Parks Administration of Argentina (APN), Condorito National Park (Córdoba), Quijadas National Park (San Luis), Talampaya National Park (La Rioja) and the Andean Club of Córdoba.

7. Timescale: Over what period was the RSG used? How does this compare to the anticipated or actual length of the project?

The RSG was originally scheduled for 1 year but ended up lasting 18 months (March 2010 to September 2011). The funds received allowed for the culmination of a project originally started in 2006.

Item	Budgeted	Actual	Difference	Comments
	Amount (£)	Amount (£)		
Transportation	1760	664	+1096	3
Food	1000	1349	-349	2
Travel insurance	100	39	+61	3
Telescope	230	246	-16	2
Binocular	60	172	-112	2
GPS	300	194	+106	3
Digital camera and memory	340	292	+48	3
Notebook	600	672	-72	2
Sleeping bag	230	286	-56	2
Tent	200	123	+77	3
Backpack	170	110	+60	3
Walkie talkie and extra battery	200	0	+200	4
Field clothes	300	631	-331	2
Print materials	160	414	-254	2
Books	140	141	-1	2
Exchange rate and bank charges	0	456	-456	1
Total	5790	5334	+456	1

8. Budget: Please provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used.

The currency exchange rate was 6.32 Argentine pesos to the sterling.

Comments:

<u>Comment 1:</u> The difference between the requested amount (RSFG \pm 5790) and the amount available to carry out the activities was due to a difference in exchange rate when the funds were deposited as well as bank transaction fees used to open the bank account in the first place.

<u>Comment 2</u>: More funds were spent on the following items: food, notebook, field clothes, print materials and books due to price hikes in the country. Four telescopes were necessary and therefore purchased instead of 2; four binoculars were necessary and purchased instead of 1. These changes



were due to the fact that several volunteers were necessary in each park in order to have simultaneous censuses. The same goes for the extra sleeping bag that was purchased.

<u>Comment 3</u>: Less funds were spent on the following items: travel insurance, GPS, digital camera, tent and backpack to compensate for the extra funds needing to purchase items described in comment 2. Less funds were spent on transportation thanks to the help of the park rangers in each park.

<u>Comment 4</u>: The walkie talkie and extra battery were not necessary thanks to the park rangers, who lent us theirs for the duration of the censuses.

9. Looking ahead, what do you feel are the important next steps?

In the future, we hope to continue with the monitoring of condors in the three National Parks. Also, we hope to be able to identify wing markings on the reproductive condor couple that utilises the nest located in Cerro Blanco Wildlife Refuge in Córdoba province, as well their potential young, in order to confirm if the same couple is using the nest and if the young return to the same nest after becoming independent. This would allow the gathering of valuable information related to the reproductive behavior and parental care of wild condors, which is mostly unknown. If we are able to identify marked individuals, then information regarding longevity and dispersal can also be obtained.

10. Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

The RSFG logo was used during all of the activities with the community including the abovementioned schools, National Parks, scientific conferences, etc.

11. Any other comments?

No.