

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. 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. 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	Hugo Ignacio Coitiño Banquero
Project title	Species richness and conservation status of medium and large mammal populations in the Protected Area Quebrada de los Cuervos, Uruguay.
RSG reference	29 August 2008
Reporting period	Final Report
Amount of grant	£ 3943.70
Your email address	hcoitino@gmail.com
Date of this report	5th September 2009

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

Objective	Not achieved	Partially achieved	Fully achieved	Comments
<p>The overall goal of the project is to estimate the richness of medium-size and large mammals inside the protected area Quebrada de los Cuervos in order to obtain relevant data, which will be used in the creation of conservation programs.</p>				<p>The methods used during the project consisted of field studies, interviews with local people, and a revision of the scientific collection of the National Museum of Natural History. During fieldwork, in each previously selected sampling zone, elevated observation towers, 6 camera traps, pug impression pads, and line transects were used. Once the study was completed, in the protected area Quebrada de los Cuervos there are 23 species of medium-size and large mammals belonging to 15 families: Family Didelphidae: White-eared Opossum (<i>Didelphis albiventris</i>), comadreja, Lutrine Opossum (<i>Lutreolina crassicaudata</i>); Family Dasypodidae: Southern Long-nosed Armadillo (<i>Dasypus hybridus</i>), Nine-banded Armadillo (<i>Dasypus novemcinctus</i>), Six-banded Armadillo (<i>Euphactus sexcinctus</i>), Greater Naked-tailed Armadillo (<i>Cabassous tatouay</i>); Family Myrmecophagidae: Tamandua (<i>Tamandua tetradactyla</i>); Family Caviidae: Capybara (<i>Hydrochoerus hydrochaeris</i>); Family Myocastoridae: Coypu (<i>Myocastor coypus</i>); Family Erethizontidae: Paraguayan Hairy Dwarf Porcupine (<i>Sphiggurus spinosus</i>); Family Felidae: Geoffroy's Cat (<i>Leopardus geoffroyi</i>), Pantanal Cat (<i>Leopardus braccatus</i>), Margay (<i>Leopardus wiedii</i>); Family Canidae: Crab-eating Fox (<i>Cerdocyon thous</i>), Pampas Fox (<i>Pseudolopex gymnocercus</i>); Family Mustelidae: Neotropical River Otter (<i>Lontra longicaudis</i>), Lesser Grison (<i>Galictis cuja</i>); Family Mephitidae: Molina's Hog-nosed Skunk (<i>Conepatus chinga</i>); Family Procyonidae: Crab-eating Raccoon (<i>Procyon cancrivorus</i>); Family Cervidae: Gray Brocket (<i>Mazama gouazoubira</i>), and the introduced species are: Family Suidae: Wild Boar (<i>Sus scrofa</i>), Family Bovidae: Goat (<i>Capra hircus</i>) y Family Leporidae: European Hare (<i>Lepus europaeus</i>).</p>
<p>Make a register of terrestrial mammal species of high priority to DINAMA, which were</p>				<p>Of the 23 species present in the area, 7 of them present conservation problems at a national and/or international level. These are: Nine-banded Armadillo (<i>Dasypus hybridus</i>), Greater Naked-tailed Armadillo</p>

<p>reported to inhabit the studied area and elaborate a document about the current situation of conservation and management of natural resources in Quebrada de los Cuervos and its areas of influence. This report would be supported by technical information and by the study of the local community of mammal species important for its conservation.</p>			<p>(<i>Cabassous tatouay</i>), Tamandua (<i>Tamandua tetradactyla</i>), Geoffroy's Cat (<i>Leopardus geoffroyi</i>), Pantanal Cat (<i>Leopardus braccatus</i>), Margay (<i>Leopardus wiedii</i>), and Paraguayan Hairy Dwarf Porcupine (<i>Sphiggurus spinosus</i>). At a national level: Tamandua and Greater Naked-tailed Armadillo are threatened; Pampas Cat and Margay are considered very vulnerable; Paraguayan Hairy Dwarf Porcupine is vulnerable, while Geoffroy's Cat and Nine-banded Armadillo are near-threatened (González 2001). And at an international level, according to the IUCN, Nine-banded Armadillo, Geoffroy's Cat, Pampas Cat and Margay are catalogued as NT (Near Threatened), while Six-banded Armadillo, Greater Naked-tailed Armadillo, Tamandua and Paraguayan Hairy Dwarf Porcupine are catalogued as LC (Least Concern). It is worth noting that these species which present conservation problems were considered as species of special interest for their conservation by the SNAP (National System of Protected Areas).</p>
<p>Provide information about living and non living components as well as conservation and rational use of resources to teachers of local schools near the study area. It is also intended to provide information about environmental education techniques and practical activities that children may do in order to stimulate their formation as responsible persons.</p>			<p>We worked with two schools from the Department of Treinta y Tres, School Number 3 from Isla Patrulla town, and School Number 60 from Arrozal 33. Initially a talk was performed with the students in order to find out how much they knew about native mammal species. Then we made 4 workshops where the following subjects were treated: general characteristics of mammals; medium-size and large autochthonous mammals of Uruguay; ecosystems present in Uruguay: biotic and abiotic components, interactions between both components and with human beings, and the role of mammals in them; field methods for studying mammals; and a fieldtrip was made to the Quebrada de los Cuervos with the aim of getting to know the ecosystems there present. Once each workshop was over, games were played in order to reassert what was previously taught. During the workshops the students elaborated a survey for their families and neighbours, where they evaluated their knowledge about mammals. Some of them also elaborated games related to the themes of the workshops. Respecting the methods for studying mammals workshop, they were taught how to use a camera trap, the GPS and to distinguish different footprints in order to identify them in the field.</p>
<p>Develop a visitor centre for tourists and other visitors to divulge</p>			<p>Within the protected area there is a camping zone with an environmental education centre. During Holy Week (April 2009) more than 5000 people visited the</p>

<p>relevant information. This centre will be implemented by local guides and it will be accompanied by the creation of an educational programme for conservation, respecting and responsible use of Protected Areas in Uruguay.</p>			<p>area. In that week several activities took place in the environmental education centre: videos with pictures of the area's biodiversity were shown, the project and its preliminary results was presented, we made an exposition of photos of the ecosystems present and their associated biodiversity including mammals and their footprint moulds made in plaster taken during the field study. Likewise, after each video we made talks where the public asked questions about protected areas and their associated fauna. On the other hand, the results of the project were presented to the public in the city of San Carlos, Department of Maldonado, In order to divulge the conservation of these species.</p>
<p>Give technical support to the local community about the use, protection and worth of ecological tourism in Quebrada de los Cuervos.</p>			<p>The protected area consists of land belonging to the Intendencia Municipal de Treinta y Tres, the Ministry of Defence, Alberto Demicheli (private owner) and Weyerhaeuser Uruguay S.A. A family of Guarani lives within the land belonging to Alberto Demicheli. This family keeps their Guarani customs, from their language to the construction of their houses. The father of the family helped us in the project by taking part in our fieldtrips. He taught us many things about the area, mainly about how to identify mammal activity that were difficult to see, as well as showing us places where he had seen some of them. On the other hand the owner of the land (Alberto Demicheli) also helped us with the project, during our chats with him, he explained the difficulties of living in such a place, and his main problem had to do with the presence of wild boars (<i>Sus scrofa</i>) since it preys on an important number of sheep. About this species we then found out once the talks with local people had finished, that it is a big problem within the area and areas in its vicinity. We should remember that the main production activity in the area is sheep breeding, and that the wild boar has been declared a pest at a national level.</p> <p>Because of this problem we have started to study the possibility of management of wild boar populations as a means to decrease the impact on sheep breeding.</p>

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

By approving law number 17.234 the Uruguayan Government took its first step towards the creation of a SNAP (National System of Protected Areas). Before this law, protected areas did not receive the importance they deserved, since the general public and the authorities were not aware of the

importance they had for the country. However, at the beginning of the project, when we contacted the local people, we saw that they themselves conserved their land, from their woodland to their biodiversity. Yet, we realized during talks with them that even though they were doing conservation, they did not know why protected areas were important, and the benefits these areas gave them, for which they rejected protected areas. Apart from this rejection, we observed that they did not speak about the species present in their land. Because of this, during the project we had to work more with them to show them the importance and the benefits protected areas have. As the weeks passed we observed an important change in the people towards protected areas. One aspect that indicated us this was that they started telling us about the species present in the area, where we could find them and the problems they had. This way they began getting closer to the project and learning together with us.

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

1. This project is one of the first to take place in Uruguay and the first in the Quebrada de los Cuervos. Because of this it is of great importance, since it provided data on species of medium-size and large mammals present in the area. This data provides relevant information for the elaboration of a management plan, and in this way strengthen the protected area.
2. Among the species of medium-size and large mammals present in the area, we find species with conservation problems at a national level (González, 2001) as well as an international level (IUCN 2008 and CITES). The Tamandua (*Tamandua tetradactyla*) is considered threatened at a national level, and of Least Concern (LC) by the IUCN; the Nine-banded Armadillo (*Dasypus hybridus*) is near threatened nationally and Near Threatened (NT) by the IUCN; the Greater Naked-tailed Armadillo (*Cabassous tatouay*) is Threatened at a national level, as of Least Concern for the IUCN and in appendix III of CITES; Geoffroy's Cat (*Leopardus geoffroyi*) is near threatened nationally, Near Threatened for the IUCN and in appendix I of CITES; the Pampas Cat (*Leopardus braccatus*) is catalogued as Very Vulnerable at a national level, Near Threatened by the IUCN and is in appendix II of CITES; the Margay (*Leopardus wiedii*) is Very Vulnerable nationally, Near Threatened by the IUCN and in appendix I of CITES; and the Paraguayan Hairy Dwarf Porcupine (*Sphigugurus spinosus*) is vulnerable at a national level, of Least Concern for the IUCN, and in appendix III of CITES. The presence of these species indicates that it is a relevant area for long-term conservation.
3. Through working with local people and educational centres we have been able to establish a strong and important bond in order to continue working together with them and to keep advancing in the awareness about the importance of biodiversity and protected areas.

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

The participation of local people was of great importance to the project, for they provided us with data we could not obtain in our fieldwork. As mentioned above (in the last objective of the chart) the family of guarani that lived in the privately owned area participated in several of the fieldtrips, they helped us in the search for mammal traces, and guided us to places where they had observed mammals. They also learned about methods we used, such as how to use camera traps. They taught us the medicinal benefits of many of the plants found in the woods as well. With local people, once time had passed, they started getting closer to us, showing interest in mammals and biodiversity in general. Because of the interest they showed, particularly Alberto Demicheli (landowner who

admitted his land into the protected area), they were informed about the mammals found in the area, as well as about those present in all Uruguay. They were also provided with material on the wild boar in order to start working on the control of this species.

5. Are there any plans to continue this work?

Yes, we believe it is important to continue working in the protected area in a long term, for studies must be carried out on those species which show conservation problems, and we must keep track of the populations which don't have conservation problems for they are not free of presenting them in the future. We will also continue working with local communities, mainly related to the control of the wild boar and the sustainable use of the area's natural resources.

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

- In January 2009 an article was written in *El País* newspaper where the objectives of the project and its importance were explained.
- In the beginning of March of the current year, a presentation was made in the city of San Carlos, Department of Maldonado, where we showed what the project was about and the results obtained until that moment.
- During Holy Week (end of March and beginning of April 2009) we presented the project and the results obtained until the moment to all tourists visiting the area (more than 5000 people)
- In June 2009 we presented the preliminary results in a poster in the 6th National Ecotourism Encounter and in the 5th Congress of National Protected Natural Areas.
- August 2009: Presentation of a poster in the 10th International Mammalogical Congress, Mendoza, Argentina.
- Lastly, in September 2009, the complete results will be presented in the departments of Treinta y Tres and Montevideo in educational centers as well as for the general public.

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 used from August 2008 to August 2009. This period coincides with the one established in the original proposal.

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.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Equipment and computer programs (laptop, scanner, printer)	909,09	750,70	158,39	The positive balance was used for car rental and gasoline.
Other equipment (camera traps, digital camera, GPS, spotlight, batteries, battery charger, rechargeable batteries)	1.227,27	1.200	27,27	The positive balance was used for car rental and gasoline.

Airline (5, 5 field trips for 8 days each) From Montevideo Departement to Treinta Y Tres Departement	292,20	3292,78	-3000,58	In the original proposal we calculated for passages but we used the money for renting a car and gasoline because there was no transport for the study area and schools.
Per diem (5, 5 exits 8 days each)	1.085,85	1.362,56	-276,71	Food was cheaper than expected.
Inputs, (sheets for printing ink printer, material for the preservation of specimens)	429,29	345,36	83,93	The positive balance was used for car rental and gasoline.
TOTAL	3.943,70	6.951,40	- 3.007,70	

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

The next steps we think will be important is to start with abundance studies, on the species with conservation problems and with carnivores found in the area because they are umbrella species, which means that by protecting them we can protect the whole ecosystem. And finally we should continue monitoring populations of all mammals, including those that currently show no conservation problems, as to evaluate fluctuations in their populations in through.

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?

Yes, the logo of RSGF has been used in all presentations done at a national and International level, as well as in all dissemination materials elaborated.

11. Any other comments?

No more comments, thanks for supporting the project