

## 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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

Grant Recipient Details	
<b>Your name</b>	Juan Carlos Jordán Arizmendi
<b>Project title</b>	Ecology and conservation of reptiles from the Dry Forest in Cerros de Amotape National Park
<b>RSG reference</b>	11646-1
<b>Reporting period</b>	
<b>Amount of grant</b>	£6000
<b>Your email address</b>	juan.jordan@gmail.com
<b>Date of this report</b>	29 <sup>th</sup> December 2013

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
Gather ecological data on the reptile community inside Cerros de Amotape National Park			Fully achieved	Ecological data on 36 reptile species were gathered by the team, forming a large database available to Cerros de Amotape National Park staff and park rangers. Before this project, up to 24 reptile species were registered at Cerros de Amotape National Park. To date, this project has established the only one large scale dataset for dry-forests reptiles' ecology in Perú.
Develop and implement a monitoring protocol			Fully achieved	Fieldwork techniques had been assessed by the team and shared with park rangers during the workshop issued on July 30 <sup>th</sup> and 31 <sup>st</sup> 2013. A field guide on reptile identification and monitoring were developed and delivered to Park's staff in PDF format for their evaluation before its approval and printing.
Training park rangers and students in scientific research and monitoring			Fully achieved	Eleven range parks from three protected areas located at northwestern Peru (Hunting Reserve El Angolo, Cerros de Amotape National Park and Tumbes Mangrooves National Sanctuary; these three protected area form the core of the Northwestern Biosphere Reserve) were trained on fieldwork, methodological concepts of reptile monitoring programme and reptile conservation. Four students from the School of Biological Sciences-Universidad Nacional Mayor de San Marcos (Lima) and one from Universidad San Luis Gonzaga (Ica) were trained on fieldwork techniques, statistical procedures and monitoring and conservation concepts.
Technical, scientific, and educational material available to park rangers, local people and scientific			Fully achieved	Presentations exposed during the reptile conservation workshop were delivered to park's staff for sharing with all park rangers and professionals related to the park. A monitoring protocol and a field-guide were delivered for park's

community.				<p>evaluation and approval. Two formats of posters (50 units each one) were delivered by November 2013 as well as stickers (100 units). "Conservation and Ecology of reptiles in Parque Nacional Cerros de Amotape, Tumbes, Perú" lecture was given on Natural History Museum at Lima on November 8<sup>th</sup> 2013 and at Universidad Nacional de Tumbes (UNT) which was transmitted by the university TV channel in vivo in December, 9<sup>th</sup> 2013. We gave class presentations to primary and secondary students in a more comprehensive language over reptile conservation at schools located at La Angostura (December 4<sup>th</sup> 2013) and Rodeo (December 9<sup>th</sup> 2013) villages. A brief speech on our project was given to UNT authorities whom visited El Caucho Biological Station while we were in field work. Two scientific papers are on their draft version (Ecology of <i>Microlophus occipitalis</i> (Sauria: Tropiduridae) in the dry forest of Parque Nacional Cerros de Amotape, Tumbes, Perú/ Ecology of <i>Gonatodes caudiscutatus</i> (Sauria: Gekkonidae) in the humid forest of Parque Nacional Cerros de Amotape, Tumbes, Perú). One degree thesis project has been approved by the School of Biological Sciences-UNMSM and it is on writing. It would be defended on 2014.</p>
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**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).**

We did not encounter major difficulties during the execution of the project. A minor difficulty that influenced our educational objectives as stated in the original proposal and prolonged the duration of the project was the fact that local educative authorities (Dean of the Agricultural School at Universidad Nacional de Tumbes and school's Directors) were not easy to find and coordinated the outreach activities planned. For this reason, we planned a fourth field trip to achieved this goal.

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

1) **“Conservation and Ecology of Reptiles in Cerros de Amotape National Park, Tumbes, Perú” workshop in Biological Station El Caucho.** Eleven park rangers from three natural protected areas by Peruvian State attended this workshop. Issues exposed were a) diversity, b) ecology, c) monitoring program concepts, and d) conservation of Cerros de Amotape National Park reptiles. Another lecture was given at Natural History Museum at Lima directed to biologists, conservationists, students and public interested on this issue (November, 8<sup>th</sup> 2013) and a second lecture was given at Universidad Nacional de Tumbes (National Tumbes University) and directed to Forestry Engineering and Ecotourism pre-graduated students (December, 9<sup>th</sup> 2013). This lecture was transmitted by the Tumbes University TV channel. Finally, two lectures were given in La Angostura (December, 4<sup>th</sup> 2013) and Rodeo (December, 9<sup>th</sup> 2013) villages directed to school students (between 7-15 years old).

2) **Reptile identification field-guide and monitoring protocol for Cerros de Amotape reptiles:** Information displayed on these field guides was obtained through bibliographical information as well as field work done by the team. Monitoring techniques and reptile species descriptions were discussed with park rangers avoiding technical words. Design was sponsored by a graphic designer from ICONO, a graphic design company based on Lima city. To date, this project has established the largest dataset for dry-forests reptiles’ ecology in Perú.

3) **Posters and stickers:** Two posters models were designed without costs sponsored by a graphic designer from ICONO, a graphic design company based on Lima city. These models were delivered (50 units for each poster model and 100 stickers in 4 different models) to Eng. Liliana Reaño, Cerros de Amotape National Park chief to be distributed stakeholders and people around the influence area of the Park.

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

Local communities were benefitted from presentations to primary school children given in December 2013 at Rodeo and Angostura villages. Also, local communities were involved in providing resources (two people and two donkeys for trip) for material transport inside Cerros de Amotape National Park.

**5. Are there any plans to continue this work?**

We are planning to continue with this work next year, reinforcing training with park rangers. They showed high interest on the issues exposed on the workshop, so the chief of the park asked the team about project’s continuation next year including both fieldwork and workshops and outreach activities in coordination with park’s staff. This project has been considered as high priority by park’s office and be included on park’s priorities for 2014.

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

We believe there are three levels of information: scientific, technical and popular. With respect to scientific level, we propose the publication of two scientific papers at first; both of them are on a draft version. On the technical level, a field-guide and a monitoring protocol were redacted and

delivered to park's rangers and staff, in PDF version and will be printed after revision by park staff. Because of the high amounts of data and the high access to internet in Peru, a blog will be launched to interact with people among others at a popular level, besides posters, lectures and stickers.

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

The RSG funds were used for three field trips to Cerros de Amotape National Park. The funds were used between August 2012 and July-August 2013. The last field trip done on November-December 2013 was self-financed.

**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.**

1 GBP=4.24 PEN

Item	Budgeted Amount	Actual Amount	Difference	Comments
Field-work material	1598	1760.4	-162.4	We have to pay local fees for equipment bought in USA (05 Pesola springs)
Food	1061	1410.1	-349.1	We used to share food with park rangers at El Caucho and La Angostura control post who support us in field trips. Also, we aggregated one sampling location (Campo Verde borderline police station) and additional field work.
Laboratory-work material	628	720.8	-92.8	Reflects additional field work.
Transportation	1245	1648.3	-403.3	Reflects additional field work.
First Aid Kit	130	130	0	
Printed material	448	225.8	+222.2	Costs were less expensive for posters, certificates and stickers.
Training (Workshop)	654	654	0	
Research permit	118	118	0	
Disbursements costs	118	44.4	162.4	Cover fee costs for Pesola springs.
<b>Total</b>	<b>6000</b>	<b>6785.4</b>	<b>-785.4</b>	

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

The most important steps are to continue fieldwork on reptile ecology and increment our knowledge over these species to implement specific actions for their protection. Also, continue disseminating the results of this project to local communities, universities and schools in local and regional scale.

Also, is important to publish these results in academic journals.

**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 RSGF logo was used at all materials produced on the project, for example on posters, stickers, certificates and guides design. During the workshop, a 3 x 2.5 m banner was exposed with a large RSGF logo. During lectures, RSGF logo was exposed and acknowledgements to RSGF were given.

**11. Any other comments?**

Thank to RSG for support this project.

