

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	Jesús N. Pinto-Ledezma
Project title	Testing a habitat model for the hyacinth macaw (<i>Anodorhynchus hyacinthinus</i>) and mapping habitat suitability for the species in protected areas in Bolivian Pantanal
RSG reference	73.03.09
Reporting period	December 2010
Amount of grant	£3881
Your email address	jpinto@museonoelkempff.org , jesuspintoledezma@gmail.com
Date of this report	10 July 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 achieved	Partially achieved	Fully achieved	Comments
Testing a habitat suitability model (HSM) for hyacinth macaw developed previously at the department of Zoology of the MHNNKM			x	It was achieved the testing of the habitat model previously elaborated based on the collected field data in the protected areas ANMI San Matías and PN-ANMI Otuquis. To achieve this, inconvenient of different type had to be faced. For example: 1. Lack of response from the functionaries of the protected areas and the SERNAP (National Service of Protected Areas) related to the ingress permissions, which delayed the ingress to the area of study (protected areas of San Matias and Otuquis) for around 8 months, delaying the taking of field data, having the first campaign on December 2010. 2. Lack of access roads which forced to make more field campaigns (n=3) than the expected in the original proposal. Despite the inconvenient mentioned, it was achieved the elaboration and testing of models at different scales since the original model was generated at one single spatial scale.
Mapping the HS for hyacinth macaw in the protected areas, to identify which places in the protected areas are most important for the species			x	It was also achieved to map the habitats of the hyacinth macaw at different scales which is more beneficial as a tool for the management plans of the protected areas.

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

Both objectives were achieved in full despite the problems encountered throughout the project. Perhaps the main problem encountered was the lack of timely response of the SERNAP staff and those responsible for the protected areas where the collections of data would be made, in aspects of entry authorisation to the study area. The lack of response caused a delay in the project start of about 8 months since the end of November of 2010 we just had the official permission to enter the

San Matías ANMI and PN-IMNA Otuquis. While this caused a long delay in entering the study area, we think the only drawback was the factor loss of time.

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

Different results were obtained with this project from the scientific to the institutional; the following are the results that are believed to have greater relevance.

- a) It was managed to meet the objectives proposed in the project proposal, such as validating a model of habitat suitability for the hyacinth macaw and besides it was also possible to map the main habitats of the species, the latter must be stressed that although in the proposal the idea of mapping was to a single spatial scale, we were able to map the habitat at different spatial scales, which helps to identify with more confidence special areas for conservation of the species in the Bolivian Pantanal.
- b) Referring to the institutional, it was achieved the strengthening of partnerships between the Museo de Historia Natural Noel Kempff and protected areas, especially with the staff of national parks rangers, since to date different training activities and monitoring of the protected areas have been developed (ANMI San Matías and PN ANMI Otuquis) together, which helps in preserving not only the species but also of protected areas as a whole.

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

It is noteworthy that without the participation of local communities (ie Candelaria) and private properties the field phase of the project would not been successful. Different people have supported us in collecting data without expecting anything in return except hyacinth macaw conservation, since the locals consider the hyacinth macaw as a sort icon in the Pantanal, on the other hand, local people also believe that the species' population has been decreasing and is not very common as in previous years.

5. Are there any plans to continue this work?

The preservation and maintenance of natural populations depends on the continuous work of researchers and local communities, in this sense, it intends to continue working towards the conservation of the species in situ with various activities such as:

- a) Annual monitoring of populations of the species, working as a whole with national park rangers of ANMI San Matías, a place where is found 99% of the hyacinth populations in Bolivia.
- b) Educational activities with the local communities.
- c) The medium-term plan is to develop a conservation and management plan for the species.

Currently we are still working with the national park rangers in the part of training observation and data collection of species and habitats.

Finally, it is important to note that funding given from the Rufford Foundation helped to get some small funds to continue the work.

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

The project's main objective is to identify special areas to conserve the hyacinth macaw in Bolivian Pantanal, in this sense, digital and hard copies will be delivered to the office of San Matías ANMI and PN ANMI Otuquis. On the other hand, with the found results are being written 2 scientific articles, where one (The hyacinth macaw (*Anodorhynchus hyacinthinus*: poblational status and Its conservation in Bolivian Pantanal) is about to be published in a local scientific journal and free access by the Internet as KEMPFIANA. the second manuscript is being prepared and the it is planned to send it to the journal Studies in Neotropical Fauna and Environment. Finally, it is planned to do a talk to the people of the community Candelaria in conjunction with rangers of the protected areas in the Bolivian Pantanal in late July, where the results found will be shown in order to create opportunities for discussion on the conservation of the species in the Pantanal.

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

Although the project had duration of 1 year, this could not be carried out on time due to the reasons mentioned above. However, omitting those details it is believed that we have been able to carry out the proposed schedule.

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
Maglite (Flash light)	80.00	96.18	-16.18	Purchase of 3 maglite, in the original budget was considered 2 maglite
Camp stove and Gas bottle	50.00	64.12	-14.12	The cost of the kitchen was over than estimated.
Portable lamp	70.00	50.38	19.62	The portable lamp cost was lower than expected in the Budget.
Tent	100.00	158.00	-58.00	It was budgeted to purchase a tent, but due to logistic and economic costs of this product we proceeded to the purchase of 3 units.
Food 3 people for 45 days	472.50	463.39	9.11	The feeding in Bolivia is relatively economic, that is why the expense was lower than budgeted.
Fuel	280.00	311.89	-31.89	Due to the inconvenient mentioned above, we have to buy more fuel than expected.
4-wheel vehicle rental	1575.00	2015.58	-156.18	Like the previous case. The rent of mobility was higher than budgeted, and this was the main expense in the entire project.
Binoculars	250.00	294.10	-44.10	While it was budgeted the purchase of one binocular, it was proceed to the purchase of two units, since the budget allowed it.

Scope	300.00	255.74	44.26	The telescope had a lower cost than expected in the budget.
GPS	250.00	223.77	26.23	Like the telescope, the GPS had a lower cost than budgeted.
Local guides and support	100.00	130.98	-30.98	It was hired the service of 3 field guides, so this item suffered from an increase.
Overhead (10%)	352.75	352.75	0	Unforeseen expenses were used to cover the extra costs of the equipment purchased, as well as part of the rent of vehicle.
Total	3881	4132.46	-252.21	

As mentioned above, the funds granted by the RSG served to get for more funding from other institutions, such as the National Academy of Sciences of Bolivia / Santa Cruz (UPSA Project ANCSCTo-01-2010 JNPL), which served to cover surplus in the project and other expenses incurred by it. NKM Museum also covered the costs of purchased software of spatial analysis which were used to develop models of habitat cartography.

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

The first step is to present the results obtained to the scientific community, as well as to the society especially the local communities who are responsible for in situ conservation of the species.

The next step is to use the findings in the Project as management tools that allow a better zoning of the protected areas in favour of the species conservation.

To develop an educational programs in local communities, with a focus on conservation of species and landscapes, this in order to generate conservation awareness in local communities.

On the other hand, to implement a semi-annual and annual monitoring of populations of the species, to evaluate its population dynamics of the species in order to have a better picture of how the species interacts with its environment and human communities in the study area.

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?

We plan to use the logo RSGF on printed maps to be delivered to the offices of protected areas as well as in the community Candelaria in the study area. Also it was made use of the logo in some talks held at the NKM Museum and Candelaria community about the project and the scope of itself.

11. Any other comments?

It's noteworthy that all equipment purchased is in the Museo de Historia Natural Noel Kempff Mercado, and will be used in current and future projects of wildlife conservation.