

Final Project Evaluation Report

Your Details	
Full Name	Nereyda Falconi Lopez
Project Title	Andean bear distribution and land use change implications for populations in Peru
Application ID	23489-1
Grant Amount	£5,000
Email Address	nereydafl@hotmail.com
Date of this Report	01-31-19

1. 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
Data compilation and database				This database will be updated as new spectacled bear records appear. We are close to submitting a publication in the <i>Ursus</i> journal.
Camera trapping				We sampled four areas, instead of five, due to the reduction of the matching funds.
Distribution modelling				We are working in the publication of the spectacled bear distribution models

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

The biggest difficulty of this project was an accident; one of the assistants got bitten by a fer-de-lance snake. Fortunately, she was rapidly assisted and stabilised. This accident also caused changes in the work and we spent some days in the hospital to assist her and I had to look for a new assistant to continue with the work.

Another challenge was the reduction of matching funds which was covering the lodging and food of the Principal investigator (me). Thus, we had to reduce the number of study sites to four. However, I obtained records from other researcher working in this area, so, there were not major differences in the work.

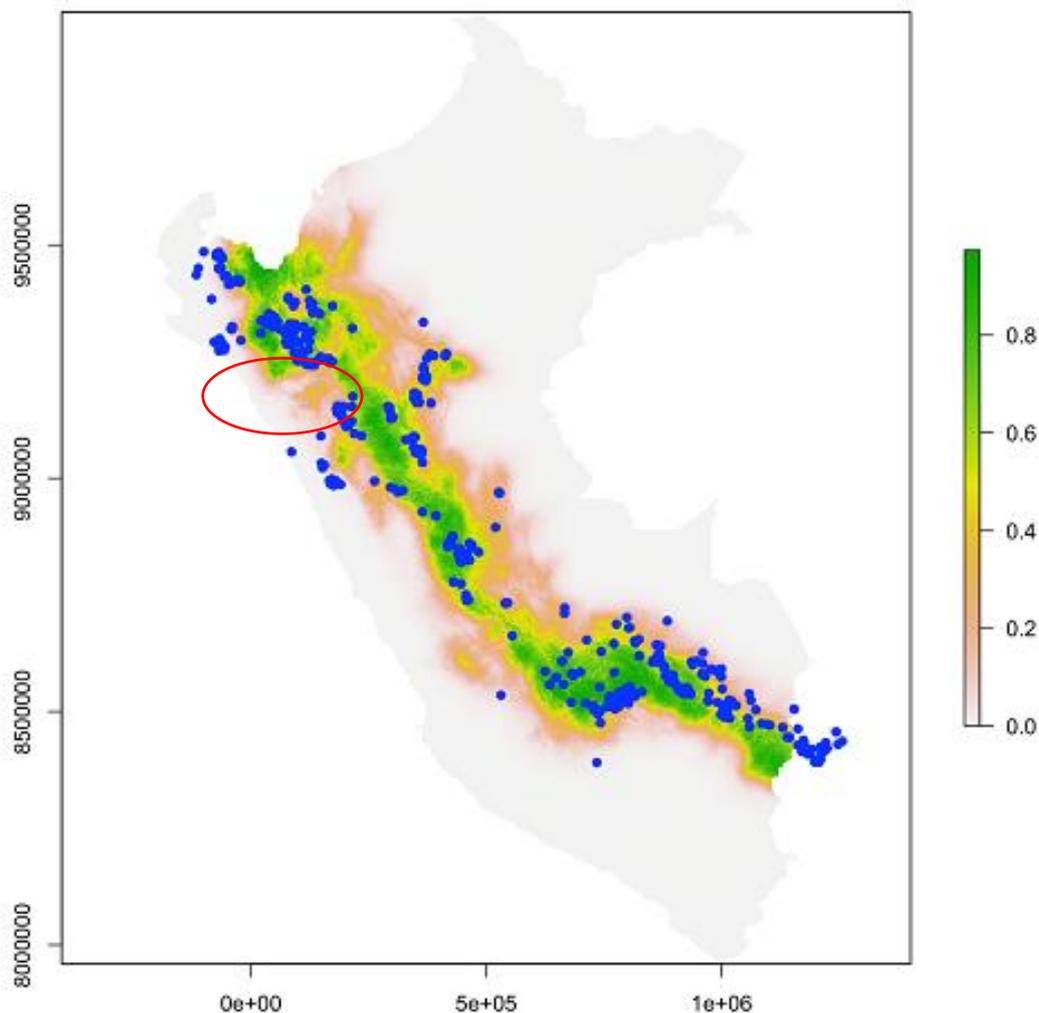
Additionally, a couple of camera traps were lost, which is very common in this type of work due to the illicit activities nearby.

After all, we could meet our objectives. The reduction of the fifth study site was balanced with the records from another researcher who shared his data with us. We worry about the accident in field but we checked later the health of the assistant and she did not presented any health problem and is back working in field in another project.

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

- a) We systematised existing records and obtained new spectacled bear records in areas without information making a total of 973 records: this is the link to our database:
<https://www.gbif.org/dataset/375eb3fe-af43-4d37-815a-d8bd891e8ca5>

- b) Our initial models such the one presented bellow (green areas are areas more where the spectacled bear is more likely to occur. AUC 0.88), indicated a bottleneck in the potential distribution of the spectacled bear in the central area of its distribution in Peru (Junin region), indicated in the red circle.



- c) We identified some areas with human-bear conflicts and made initial contacts with local communities.

In a communities in Huanuco two bears were hunted days before we arrived because they did not know that it is a protected species and they could make some money selling the skin. However this area presented a bigger threat; a highway is being built and can put in danger this and other species due to the increase of access to pristine forest and the illegal activities present in the region. In the Junin region conflicts were related to crops damage, including some buffer zones of protected areas.

4. Briefly describe the involvement of local communities and how they have benefited from the project.

Due to the scale of this project we had the opportunity to work with different communities; this allowed us to see the different challenges of the local people and the different relations with the forest. Our work was developed in private land and land managed by communities, so as a requirement we had to introduce ourselves and explain our work; sometimes we changed the area because we did not get permit from the local authorities because we couldn't find them or because of conflict with the government. However, this gave us the change to also know the concerns of the communities.

The absence of the government was clear in many localities - also they distrust NGOs and governmental representatives. We got more success when we were introduced as students and explained that this was part of a dissertation. In most of the communities where we worked, people showed a concern of the environment but also where concern about the regulations that limited their hunting and agriculture. Even when these communities were very remote, just few people knew about their wildlife. These people were generally the hunters or people that like to explore the area. Thus, our initial contribution was to show to the local people the species that were in their area, we sent the best pictures to the communities, so they can see the animals. We also talked with them when we had the opportunity and explained we these animals were important, especially the animals that they had conflict with, such as large carnivores and bats. Although we believe this is a good start more work is need and the government need to be more present in special in areas with land conflicts.

This project also gave the information obtained in the camera traps to the regional authorities. In some areas this information become an important part of their manage plan of the area such as in Pasco and Junín, meanwhile in other this was more a tool to raise awareness in local people about the wildlife around, such as Huanuco and Ayacucho. However, the most important contribution of this project is going to start. We initiated a collaboration with the Otishi National Park (ONP) and Ashaninka Communal Reserve (ACR) in Junin to initiate a long-term monitoring programme for terrestrial mammals.

5. Are there any plans to continue this work?

We are collaborating with the Otishi National Park (ONP) and Ashaninka Communal Reserve (ACR) in Junin. The disposition to work of the ONP and ACR team and the key location created a great opportunity to continue our work.

Our goal is to work with the rangers to monitor the terrestrial mammals in the area. This is especially important because the people in the ACR depend on subsistence hunting and fishing and there is a link other protected areas in the south such as the Manu National Park, and an altitudinal gradient which provided us with very unique habitats. We are glad to say that already trained three rangers and initiated a pilot survey.

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

We already publish the spectacled bear database and it's available online at this link: <https://www.gbif.org/dataset/375eb3fe-af43-4d37-815a-d8bd891e8ca5>

We are submitting a paper in *Ursus* journal presenting this database in order to diffuse it with the bear expert and students, but we also share this information with the Peruvian wildlife and forest service (SERFOR) who are leading the Andean Bear National Conservation Plan in Peru.

We also contributed with the records of carnivores species in a data paper in *Ecology* journal.

In the same way, we are working on a publication of the distribution of the spectacled bear and we also are going to share these results with SERFOR in order to contribute with the Andean Bear National Conservation Plan in Peru.

We also are looking for further funds that allow us to share these data and train rangers and wildlife specialist in the use of this resources.

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

We got the grant in January 2018 and we anticipated the conclusion of this project on January 2019, so, yes we fulfil the estimated time.

8. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount	Actual Amount	Difference	Comments
20 Camera traps	3000	2055	-945	
Memory cards and Batteries	200	292	+92	Memory cards 139.87 and batteries 151.36
Local guides	1200	1000	-200	We reduce one area
Transportation	300	600	+300	Matching funds were reduced, and we had to bring a new assistant and sent back home another.
Lodging	300	500	+200	
Food /alimentation		400	+400	
Courier		102	+102	I used the difference to complete the courier cost of

				equipment and material.
Total	5000	4949	-51	

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

I'm definitely looking to continue this work. I'm continue the work with the ONP and ACR but there are other areas that need attention. In my point of view, the spectacled bear depends of the better understanding of the central area of its distribution, between Pasco and Junin. This seems to be a bottleneck and the effect of this on bear population connectivity needs to be studied. On the other hand, the human-bear conflicts need to be better understood. In our work we could see that in some cases people hunt them just because they saw them; in other cases crop destruction was the trigger. This means that the first step is to understand in which areas human-bear conflict exists for crops or cattle and in which is just an opportunist hunt, in order to address each problem more efficiently.

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

Yes, I presented this work in the ESA 2018 at New Orleans and I used the Rufford foundation logo in the poster.

11. Please provide a full list of all the members of your team and briefly what was their role in the project.

Pedro Huanca	Field assistant
Angela Arapa	Volunteer field assistant
Yully Huayta	Volunteer field assistant
Oscar Quispe	Volunteer
Diego Zavala	Volunteer
John Organ	Project design advice
John Finn	Project design and analysis advice
Todd Fuller	Project and publications advice
Stephen DeStefano	Project and publications advice

12. Any other comments?

I really appreciate the opportunity that Rufford gave me. This project made possible that young professional and student to learn not just about the spectacled bear but also about the reality of the country and all the challenge that people face every day. As you can see some of this student started as volunteer and became an assistant, some of them are working in their own project know or working for some institution.