

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 Recipients Details	
Your name	Cristal D. Ange
Project title	Community participation in the characterization and surveillance of the jaguar (<i>Panthera onca</i>), and in the construction of a local conservation plan for this species in the International Bird Area “Valle de San Salvador”, in the municipality of Dibulla, La Guajira department, Colombia.
RSG Reference	21.02.08
Reporting period	April 2008 – June 2009
Amount of grant	£5744
Your email address	cristalange@hotmail.com , fundacionherenciacaribe@gmail.com
Date of this report	June 10, 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
To have a better understanding of the current situation of jaguars and other large felines in the northern part of the Sierra Nevada de Santa Marta.			X	The interviews, transects and photographs turned in by the field personnel (indigenous people and peasants) provided sufficient information to establish that there is a good stock of animals in the study area, including jaguars and their prey.
To involve local communities in an environmental education strategy that includes their conversion into biodiversity monitors.			X	Three educational meetings were held, each one with a group corresponding to peasants, the Wiwa indigenous community and the Arhuaco indigenous community. From each group, two to three members were trained in local surveillance tools for monitoring biodiversity and then hired to perform that job in the study area for a period of three months.
To construct a local conservation plan for the jaguar in the International Bird Area (IBA) "Valle de San Salvador".				The local conservation plan for the jaguar was constructed for the northern flank of the Sierra, specifically for the area of the "lengueta" of the National Park and its buffer zone, including the eastern part of the IBA originally comprising the study area, as well as Indigenous Reserves located within the National Park. This means that the original study area comprising the IBA shifted towards the east to include territories of the National Park and the Indigenous Reserves that limit with the IBA. The indigenous authorities requested the change for security reasons (presence of violent groups involved in Colombia's internal war), proposing areas of monitoring

				located in the limits of the IBA that were of their interest as well as of the National Park officials.
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

The biggest difficulty in the project was dealing with the violent groups involved in Colombia's internal warfare. Towards the beginning of the project the presence of these violent groups was reported in certain areas of the IBA. The indigenous authorities together with the National Park System officials and the Foundation team came to the understanding that the project's objectives would not be altered if the study area was shifted towards the east, leaving out the seemingly more dangerous area, but including areas of the National Park and the Indigenous Reserve that were of more interest to the social groups involved in the Plan. Thus, the change became beneficial in the sense that the team was able to satisfy the needs of the indigenous groups involved in the strategy. The indigenous groups and the National Parks officials were interested in monitoring areas where the Park and Indigenous Reserves overlap, to show, through the results of the project, that the presence of Indigenous Reserves within the National Park aids in the conservation efforts. The results of the project actually showed that biodiversity had increased in areas where the indigenous groups have been replacing peasant communities.

Another difficulty in the project was trying to follow a timescale for the project while working with indigenous groups that have a different reality and perception of time, as well as a hierarchy and internal ways of working and discussing that to our western mode of thinking seem very long and time consuming. Although the project could have been executed with members of the indigenous groups that might have been interested in the project and willing to work, the Foundation's position was that the project had to be presented and accepted directly by the indigenous authorities (as well as the National Park authorities), as a project to be implemented as a team between the Indigenous groups, the National Park Service and the Foundation. In practical terms, this meant that the project's chronogram was delayed about 4 months from the original timescale. However, the delay was well worth it, as the project itself and the Conservation Plan for Felines in the area are officially accepted by the indigenous authorities and their participation in these efforts are necessary for any project to be fruitful in the long run.

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

1. Understanding the present situation of jaguars in the northern flank of the Sierra Nevada of Santa Marta. The project allowed us to determine that large felines, and biodiversity in general, have increased in the areas where the Wiwa and Arhuaco Indigenous Reserves and/or communities have been established near or overlapping with the National Park Sierra Nevada. This is a very important finding, as it supports the idea that people and nature can coexist in harmony under certain conditions, and specifically for the Sierra Nevada, it means that the creation of Indigenous Reserves within the National Park can be helpful in obtaining conservation goals when the Indigenous Reserves substitute peasant communities. Additionally, more knowledge on the current trends of biodiversity in this region also allow for better conservation measures to be taken, and the measures proposed as a result of this project have been incorporated in the Conservation Plan.

2. Building a trustful relationship between NGOs, indigenous communities, and the public sector. The institutional aspect of the project is considered one of the most important outcomes of the project. Working in a country where there is very little governance and trust between the different sectors of society, this project was able to open a bridge between peasants, scientists, public officers, indigenous tribes, and NGOs to work together for a common cause. Despite the different and sometimes conflicting views of each of the stakeholders involved in the project, we were able to build a social web where peasants and indigenous people worked side by side and learned from each other, where public officials and different environmental NGOs (notably the foundation directing the project – Caribbean Environmental Heritage Foundation, Conservation International Colombia and ProCAT) were able to work together as a team, and where the different authorities (indigenous and institutional of Colombia) gave their support and took as their own the project implemented. The importance of this union is that the work can continue from solid ground.
3. Raising awareness amongst the different stakeholders on the need to conserve the jaguar. Through the environmental education workshops and, most notably, by engaging the community in the scientific efforts to learn about the biodiversity of the study area, the jaguar became a key figure in this area, one associated with the conservation efforts and the need to save the forest relicts of the Sierra Nevada of Santa Marta. Amongst the scientific community, the project's findings are also elevating the understanding of this species, as they are evidence that the Sierra is a key site for feline conservation, something ignored by most jaguar specialists in America. In fact, an international NGO specialising in feline research has expressed its learning about the dissemination of large felines to and from the Sierra Nevada and the mountainous region in the frontier between Colombia and Venezuela.

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

As is clear from the information presented throughout this Final Report, local communities were the central pivot of the project, the point from which the entire project rotated, and thus, they highly benefitted.

From the perspective of the indigenous communities, one of the most important benefits was the evidence provided by the study to support the increase in the size of their current reserves. The indigenous tribes that participated in the study have already agreed on new limits to which they would like their reserves extended. These extensions of land include both areas inside the National Park Sierra Nevada and in its buffer zone. The finding that biodiversity has increased in the areas where indigenous communities have replaced peasant communities, and that in the areas where they are established there is presence of large felines (and thus, the ecosystem is in good condition), supports the idea of extending Indigenous Reserves in this part of the country, as it is evidence of what the Wiwa and Arhuaco communities have always preached: that their presence is an asset and not a threat to the biodiversity of the Sierra Nevada.

The fact that the project was given the official support of the indigenous authorities generated much interest from the entire indigenous community on the project itself and when they first heard about the project they really questioned how they would be benefitted, as they knew *a priori* what the findings of the project would be. As a result of much thinking, the Wiwa community decided that the findings could be used for educational purposes. They asked from the project to print educational booklets using the pictures from the camera traps placed in their area to disseminate cultural knowledge on the animals portrayed, as a way to teach new generations and Wiwa groups located in

other areas of the Sierra that are going through a cultural crisis, about their cultural and natural legacy. The booklets have not been published yet (but we are currently working on getting the funds to publish the booklet by the end of this year) but what is interesting is that the project made them understand that they too have a place and can benefit from scientific endeavours. Something similar occurred with the Arhuaco people, who have proposed a series of conservation measures to keep the large felines thriving away from their beasts and children.

As for the peasant communities, the benefits of the project are partly economical, as three peasants who had been previously involved in a tapir conservation project, and who were former jaguar hunters, were hired not only to share their monitoring experiences in the training course of field personnel, but also as field personnel themselves. But perhaps more important than the salary that these people received, and it should be noted that all the field personnel hired by the project live in conditions of extreme poverty as defined by the Colombian social system, is the fact that the hunters are finding an alternative to living in better conditions through their work on conservation projects. It may only be three people but they are an example for the rest of the community who now know that their peers who decided to halt their own destructive actions to take on a conservation cause are finding each day more work opportunities. Additionally, by working with this project the three peasants came in contact with other conservation agencies, such as the National Park System, and by doing so they entered a network of people and institutions that are in the conservation field and may use their services at some point in the future.

5. Are there any plans to continue this work?

Yes. This was a pilot project of the Caribbean Conservation Plan for Felines (CCPF), and it allowed us to try out different methodologies for working with the local communities in obtaining measurable and trustable results for determining the conservation status of the jaguar in the Colombian Caribbean, as well as to implement an educational strategy to work with these same communities. In this sense, the Rufford grant allowed the authors of the CCPF and working partners (both governmental agencies and NGOs) to fine tune a series of tools (interviews, transects and photography) to be used and replicated throughout the Colombian Caribbean. Along with other partners, we are currently starting the replication of this project in the Canal del Dique, another region of the Caribbean.

As for the work on the Sierra Nevada, the Caribbean Heritage Foundation recently received a grant that will allow us to hire the indigenous people already trained in the continuation of documenting the presence of jaguar and other biodiversity in the study area, for another 4-month period. Through the Foundation, we hope to raise the funds necessary to little by little, replicate this work throughout the different flanks of the Sierra Nevada, and eventually be able to run an estimate of the jaguar population and to learn if and how they are disseminating throughout the country. Two international NGOs have already expressed their interest in supporting this endeavour. The above activities are part of the implementation of the Conservation Plan for Felines in the area of the “lengueta” of the Sierra Nevada de Santa Marta, which is the guide for the Foundation’s work in this site.

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

The findings of this project will be presented in the 53rd International Congress of Americanists, to be held in Mexico City in July 2009, within the seminar “Jaguar Research and Management in the New Millennium”. For the general public, an article is being prepared to be published in *El Tiempo* newspaper.

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

The grant was used during a period of 14 months, although the anticipated length of the project was 10 months. As was stated above, the biggest difficulty in following a timescale was due to the fact that the indigenous communities with which this work was done live in very remote areas (about 5 hours by mule from the closest point where a car can reach) and their sense of time is very different, and much slower from our point of view. Yet, we wanted to make sure that the appropriate authorities supported the project, and they were the ones that decide how and when we could meet with them and every other aspect related to the project (where to place the camera traps, who can be trained, when to meet again, etc.). In addition to that, the fact that there are violent insurgent groups in the area also delayed the beginning of the project, as we were unable to work certain areas of the original study area and we waited a few months before we were sure of exactly where we could enter and implement the project.

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.

All values are indicated in £ sterling (exchange rate used for date of transaction of the grant, May 14 2008: £1 : 3494.98 Colombian Pesos).

Item	Budgeted Amount *	Actual Amount	Difference	Comments
Monitoring and Surveillance personnel	1065.97	1532.54	-466.57	The original budget corresponded to the payment of two individuals during 4 months. However, because the CEH Foundation was able to cover the payments of additional personnel, we decided to hire the four indigenous members that had been trained, as well as the 3 peasants who worked as local trainers and who had previously participated in a tapir project. The payments were made not on a monthly basis, as budgeted, but according to the products turned in (number of interviews and transects, as well as a monthly minimum payment for setting up the cameras). This form of payment ensured that those who actually did their work could earn, at the most, the minimum wage (amount budgeted), but those who did not turn the maximum amount of monitoring products for a month, would earn less. This system proved to be very useful and will continue to be implemented in future projects. The monitors agreed that the system was fair, because it ensured that those that worked more

				earned more. Overall, as can be seen from this budget, the funds provided by the grant were enough to cover for the additional payments.
Local trainers	266.49	72.96	+193.53	The local trainers received a payment for their collaboration in the course that was much lower than budgeted. The remainder of the budget was used to pay these same trainers to actually participate in monitoring and surveillance of the jaguar (above item).
Trap cameras with batteries	1066 (1279.2)	1237.86	-171.86	The number of batteries needed to run the camera traps was higher than expected, as it was decided by the technical team to use only non-rechargeable batteries for better results (some cameras cannot be used at all with rechargeable batteries).
Digital cameras	213.2 (319.8)	274.34	-61.14	It was decided to invest in one slightly better quality digital camera than the one that could have been bought with the proposed budget (the second camera was bought according to the budget presented).
GPS	319.8 (479.7)	257.77	62.03	The budget corresponded to two GPS similar to the ones that the Foundation has been using in other projects in the Caribbean. However, due to the forest canopy as well as to the mountainous nature of the study site, that GPS reference did not work well, and we bought a higher quality GPS instead of two. The budget, however, was not enough for buying two of these GPS.
Basic surveillance equipment	266.49	258.34	8.15	
Workshop materials	133.25	146.9	-13.65	
Mules for monitors	160	157.37	2.63	
Transportation subsidy for participants to attend	799.48	69.81	729.67	The meetings for the workshops (except meeting with hunters) were finally arranged at the participants local places that did not require them to have to pay for transportation, although it did mean that the team staff had to undergo additional transportation costs (mules) for attending the workshops with indigenous groups, that were held in very remote villages (5 to 7 hours walking and by mule).

				Thus the resources allocated as subsidy for the participants were spent in the additional cost of transporting the team members (including on mules) and in extra food because the meetings were longer than planned. Please note that this particular item increased from the value presented before in the interim report, as the costs of team members mobilizing in means other than car had not been included in that report.
Air/terrestrial ticket for field expert	266.49	343.34	-76.85	Cost was slightly higher due to tariff at the moment of the course.
Land transportation of professionals to field site	800 (1332.46)	833.55	-33.55	
Environmental education and data collection workshop meals	213.19	268.67	-55.48	As explained in the transportation section, the meetings for the workshops (except meeting with hunters) were finally arranged at the participants local places, which decreased the cost of transportation subsidies, although it did mean that the team staff had to undergo additional food costs because, since the places of the meetings were so far, the meetings were at least a couple days, much longer than planned.
Capacity building workshop meals	133.25	285.2	-151.95	The number of participants was significantly higher (double what was budgeted) because the site where the course was held, in the Tayrona National Park very close to the study site, was used at no price in exchange for the participation of park rangers of this Park. Also, more park rangers from the Sierra Nevada National Park participated because they wanted to be an active part of the monitoring strategy, which was a wonderful asset to the project.
Workshop meals for building the local conservation plan for the jaguar	40	42.92	-2.92	
TOTAL	5743.61	5781.61	-37.96	The additional funds were covered by the CEH Foundation.

*the numbers in parenthesis indicate resources and/or funds allocated to the project by the Foundation.

Note: this budget has been approved by the Foundation's accountant and the fiscal reviser. Scanned copies of every single receipt can be e-mailed upon your request.

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

Congruent with our plans to continue our work (see above question #5) and with the Conservation Plan for Felines in the area of the "lengueta" of the Sierra Nevada National Park, the most important next steps are:

- Supporting the initiatives that the indigenous groups have had as a result of being involved in the project. The Wiwa people want to use the results of this project as part of a cultural and educational strategy for strengthening the cultural heritage of the Wiwa people all over the Sierra Nevada. The strategy consists of publishing a workbook in their native language that tells of the cultural and natural significance of the animals found in their territory. As for the Arhuacos, they are more concerned with the management of human-jaguar conflict in the territory shared by both.
- Fine tuning the scientific tools used in this project to answer more specific questions about the jaguar and other large felines in the study area, particularly questions regarding mobility and population issues.
- Replicating this project in other parts of the Sierra Nevada of Santa Marta, so that eventually the information can tell us more about the jaguar in a larger and more appropriate scale for the conservation needs of this species.

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. All the scientific documents that were produced by the Foundation to monitor the jaguar (interviews, transects, animal identification pictures, etc.) had the RSGF logo. Also, this logo was made into a poster that was exhibited during the workshops and training course.

11. Any other comments?

I am very grateful to the RSGF for giving me the opportunity to work on a project that, despite being small, has made a big difference in the conservation plans for jaguars in Colombia and in my future work plans. This project became one of the first concrete actions of the Jaguar Conservation Strategy of Colombia and specifically, of the Jaguar Conservation Plan for the Colombian Caribbean, its results inevitably affecting the future of the jaguar conservation actions taking place now and those in the future. The RSGF project was the seed for many interesting things occurring in the northern flank of the Sierra Nevada: union between stakeholders, economical viability of the conservation efforts and a more clear future for jaguars. Thank you for giving me, Colombia, and the planet this opportunity, and most important, thank you for doing all this in a non-bureaucratic and overbearing process!