

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	Nicholas Bayly
Project title	Crossing the Caribbean – Identifying critical fuelling sites for Neotropical migratory birds in northern Colombia
RSG reference	60.01.09
Reporting period	March 2009 to July 2010
Amount of grant	£5,897
Your email address	nick.bayly@selva.org.co or nick_bayly@hotmail.com
Date of this report	14th July 2010

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
Determine which species utilise the Sierra Nevada de Santa Marta (SNSM) during autumn migration			Yes	Contrary to expectations, we were able to work at three key altitudes, recording 31 species of Neotropical migratory landbirds and compiling a database of over 2200 records
Determine which species utilise the SNSM during spring migration			Yes	We recorded 36 species and compiled a database of over 2600 records. Included records of 3 globally threatened migrants.
Generate information on the stopover behaviour of migrants in the SNSM		Yes		We collected key data demonstrating how several species accumulate large energy reserves in the SNSM allowing them to make long-haul flights across the Caribbean Sea. More data are required to show the full extent of use by different species.
Determine whether migrants accumulate sufficient energy in northern South America to fly directly across the Caribbean			Yes	The finding that various species accumulated enough energy in the SNSM to fly over 1500 km across the Caribbean highlights the importance of the region for migratory birds.
Disseminate our findings through a project website			Yes	Large amounts of information were posted to http://avesmigratoriascolombia.wordpress.com and the website had received 4,938 hits at the time of writing.
Provide reserve managers with biodiversity information and priorities			Yes	Species lists, abundance data and raw data were passed to key stakeholders in the region, including managers of the Quebrada Valencia reserve, owners of one of the largest coffee farms in the region and ProAves.
Disseminate findings to the conservation community		Yes		A talk was given to over 100 individuals attending a World Migratory Bird Day event at the University of Santa Marta. Complete report with conservation recommendations to be delivered to Corpomag, the local environmental cooperation, shortly. Three talks to be

				delivered at the III Colombian Zoology Congress in November 2010, in a symposium on migratory birds organised by the project leaders. Various publications are in preparation.
Train four individuals in bird ringing techniques and their application			Yes	Five individuals received training during the project, three from local universities and two from the department of Tolima. We also instructed on a course in the El Dorado reserve, training 20 individuals from across South America at our ringing station.
Highlight the conservation importance of Quebrada Valencia to visiting tourists			Yes	A series of six posters were displayed along the main trail in the reserve and were seen by over 1000, primarily Colombian, tourists visiting the reserve. The posters are now displayed in a local school where further activities will be carried out in September 2010.
Generate biodiversity information for the SNSM			Yes	We created a database containing close to 10,000 records, including the first confirmed record in over 60 years of a globally endangered hummingbird, the Santa Marta Sabrewing.
Complete the first stage in prioritising stopover sites for migratory birds in northern Colombia			Yes	Prior to this project, the information needed to define priority stopover sites for protection in northern Colombia did not exist. This project represents the first crucial step in defining conservation priorities for over 800 million migratory landbirds that pass-through Colombia every year.

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

The main difficulty that arose during the project was during the first migration period when the manager of the El Dorado reserve run by ProAves was unable to collect data on a part time basis, as had been agreed prior to the start of the project. We managed to overcome this by employing an alternative field assistant and adding a third field site, Finca la Victoria, where accommodation and food costs were lower than El Dorado and thus, we were able to keep costs more or less within budget.

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

1. Comprehensive database of migratory birds in the Sierra Nevada de Santa Marta – Over 800 million migratory landbirds pass through Colombia every year, yet we know little of the routes they take, the sites they use or where and when they prepare for long-distance flights

across the Caribbean Sea. Without this knowledge, it is impossible to determine conservation priorities or attract conservation funds for a group that is key to ecosystem function in both North and South America and has experienced widespread declines. This project has completed the first key step in the data collection and prioritisation process that will form the basis for defining conservation priorities and enabling effective protection measures. Our data show that to effectively conserve migratory birds in the Sierra Nevada, we must conserve forests between 0 m and 2500 m, with pre-montane forest between 1000 m to 1500 m supporting the highest diversity and the most vulnerable species. The existing protected area system does not adequately protect lowland or pre-montane forest and additional protective measures are crucial to maintain this key stopover region.

2. Increased awareness of the phenomenon of migration in Colombia - Despite being the most vulnerable stage in the life cycle of migratory birds, how birds migrate and the requirements of migrants during migration remains poorly understood in Colombia. Through our project website, which was updated on a near daily basis during migration, we have reached a large and diverse audience, generating considerable interest in migration. The website had received 4,938 hits at the time of writing. We also reached over 1000 visitors to the Quebrada Valencia reserve through a poster display along the reserve's main trail and the posters continue to reach the local community by being displayed in a local school. A presentation given to over 100 individuals during a celebration of World Migratory bird day at the University of Santa Marta and three planned talks at the III Colombian Congress of Zoology in November will also serve to increase awareness.
3. Capacity building and laying the foundations for continued work – Twenty-five individuals received training in bird ringing techniques and their application in the field of ecology and conservation during this project. Noteworthy was the training of three individuals from the University of Santa Marta who continue to work in the study region and will be key partners for future projects. Three field assistants received training and valuable field experience, an important contribution to the capacity for ornithological research in the country.

During the project, the two project leaders and three further Colombian conservationists, formed the organisation Selva: Research for conservation in the Neotropics (www.selva.org.co). The formation of this NGO will ensure the continuation of work on migratory birds and on the endemic and endangered species of the Sierra Nevada de Santa Marta using the information we have now collected on resident species. The project also enabled us to form important relationships with local landowners and individuals working in the region that are key to the success of future conservation initiatives. It is important to bear in mind that up until 5 years ago, the areas we are working in were conflict zones and gaining the trust of local communities is key to successful conservation. Finally, interest from the University of Saskatchewan, Environment Canada and the Cornell Lab of Ornithology, has given the project international recognition and generated exciting partnerships to continue the determination of conservation priorities in Colombia.

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

Local communities have been involved in education initiatives such as the poster displays in Quebrada Valencia and in a local school. Many individuals also visited us at our ringing stations, enabling them to see birds in the hand and learn about the bird communities that surround them. Stakeholders in the reserves and private land on which we have worked, who are primarily

residents, have benefited from receiving biodiversity inventories and an increased understanding of the importance of their land to conservation.

5. Are there any plans to continue this work?

Selva is currently working on plans to continue this work for a further three years and expand the scope of the project to include a range of sites along the Caribbean coast, in particular the Darien. Through partnerships with the University of Saskatchewan, Environment Canada and the Cornell Lab of Ornithology we will examine a wide range of aspects of migratory behaviour, creating a detailed picture from which informed decisions can be made. As more information comes in, we will begin determining protection measures for key sites, culminating in a priority sites plan for northern Colombia. An educational component of the project will include the design and implementation of a curriculum focused on migratory birds and biodiversity conservation to be carried out in schools close to study sites.

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

Many of the results of our work have already been disseminated through the project website (<http://avesmigratoriascolombia.wordpress.com>) and as reports and key findings become available they will also be available through the website. Results will also be posted to the Selva website (www.selva.org.co). We have already presented initial findings at the University of Magdalena in Santa Marta and three further presentations will be given at the III Colombian Zoology Conference in November 2010. We also plan to present our findings to the Neotropical Ornithological Conference in Peru in 2011. A minimum of three scientific publications will be prepared over the coming two years as more data comes in, to be published in international journals. Finally, we are currently preparing a summary report to be provided to key stakeholders in migratory bird conservation, particularly in North America.

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

One year and four months as anticipated.

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.

Exchange rate £1 = 3100 Colombian pesos (approx. average during project, currently 2850)

Item	Budgeted Amount	Actual Amount	Difference	Comments
Field assistants	£750.0	£972.9	-£223	Salary raised to reflect experience and ability
Accommodation & food El Dorado	£412.5	£545.5	-£133	Cost of staying at El Dorado increased from the quote we had originally received

Accommodation & food Quebrada Valencia	£1406.3	£1220.1	£186	Accommodation cost lower than originally thought, allowing us to balance the overspend in El Dorado.
Accommodation & food during preparation and reporting phase	£687.5	£709.7	-£22	
Transport to and from Santa Marta	£312.5	£354.5	-£42	
Transport between field sites	£281.3	£199.1	£82	Cost of transporting trainees cheaper than expected
Training activities	£187.5	£133.5	£54	Cost of accommodation for trainees lower than expected
Poster displays	£31.3	£39.1	-£8	
Bird ringing equipment (mist nets, rings, pliers, balances)	£1004.1	£783.0	£221	Bird rings were kindly donated free of charge hence surplus
Miscellaneous (string, machetes, flagging tape, batteries etc)	£125.0	£158.4	-£33	Cooking & storage equipment for Quebrada Valencia, unexpected extra
Communications	£71.9	£71.5	£0	
Internet (website creation and updating)	£93.8	£122.9	-£29	
Reporting	£37.5	£37.5	£0	
Research permits	£46.9	£103.9	-£57	Cost of permits higher than expected
Site recce transport	£187.5	£182.3	£5	
Site recce accommodation and food	£262.5	£294.4	-£32	
TOTAL	£5897	£5928.2	-£31	

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

The next key steps are to secure funds for autumn migration 2010 and spring migration 2011 in the Sierra Nevada de Santa Marta and initiate work in the Darien. This will enable us to consolidate the information collected so far, forming a strong scientific basis from which conservation actions can be planned and conservation funds and partners secured. The Darien is hypothesised to be a vital region for migrants as they pass between Central and South America and it represents the only other large extension of tropical forest in northern Colombia away from the Sierra Nevada. Surveying this area is key to understanding how migrants use northern Colombia and furthering the process of prioritising regions/sites for protection.

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 has been used in a range of materials during the project. It appears on our project website twice (<http://avesmigratoriascolombia.wordpress.com>) and the same website also contains a link to the RSGF website. The RSGF logo also appeared on a lecture given at the University of Santa Marta. Finally, the RSGF logo will appear in reports to the regional environment agency (Corpomag)

and in reports to interested parties (e.g. Environment Canada). Finally, Rufford's contribution to our work will be acknowledged in all scientific publications.

11. Any other comments?

The funding provided by Rufford for our project has been critical in creating the inertia for a longer-term initiative. We are extremely grateful to Rufford for supporting our work and giving individuals like ourselves the opportunity to carry small but highly effective projects.