Final Evaluation Report

Your Details	
Full Name	Eliana Montenegro
Project Title	Occupancy and habitat preferences of the secretive and Critically Endangered Banded Ground-Cuckoo (*Neomorphus radiolosus*) in Northwest Ecuador
Application ID	29319-1
Grant Amount	£6,000 (local exchange: $7.510)
Email Address	elimontenegrop@yahoo.com
Date of this Report	March 7, 2022

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
Train forest guards and local people in the use of camera traps				In August 2020, forest guards from Canande and Tesoro Escondido reserves were trained to setup and install camera traps.
Install 18 camera traps in 18 transects (3 cameras per transect) cameras were moved each month for nine months in total				From October 2020 to December 2021, 18 cameras were installed in 18 points located in 18 determined transects. Cameras were moving to
Analyse data and write a draft for publication				We are currently working in the final database to start data analysis and write a publication.
Share data with local people				Since COVID pandemic restrictions access to rural communities were not possible. However, we socialised the project in one community and included Rufford logos in a local bird guide which has been already distributed among communities.

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

The global pandemic was the main difficulty project we faced during this time. First, it was impossible to start the project in March 2020. Besides, there were a delay in the importation of the 18 cameras. In the end, camera installation ran from October 2020 to December 2021. Database is almost completed, and data analysis will start promptly with the Karubian Lab support, Tulane University.

Other difficulty was to find the target species, the banded ground cuckoo. We just got one record of the species in these months. For this reason, to evaluate occupancy and habitat preferences of this species will be not possible. However, data obtained is valuable and could result in a draft publication about biodiversity in the Choco remnant forests using camera traps.

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

Outcome 1: Park rangers trained to work with trap cameras
Ten park rangers were trained to setup and install camera traps.

Outcome 2: Camera trap monitoring in 18 transects for 1 year
Camera trap monitoring resulted in records of fauna: 628 birds and 1813 mammals.

Table 1. Preliminary list of recorded bird species. This list is not definitive, unknown species and species identified just with the family must be revised

Family	English name	*Scientific name*	No. of records
Tinamidae	Great tinamou	*Tinamus major*	137
	Unknown bird		136
Odontophoridae	Tawny-faced quail	*Rhynchortyx cinctus*	52
Columbidae	Olive-backed quail-dove	*Leptotrygon veraguensis*	40
Odontophoridae	Rufous-fronted wood quail	*Odontophorus erythros*	36
Grallariidae	Streak-chested antpitta	*Hylopezus perspicillatus*	30
Columbidae	Purple quail-dove	*Geotrygon purpurata*	26
Columbidae			17
Thamnophilidae	Ocellated antbird	*Phaenostictus mcleannani*	14
Thamnophilidae	Chestnut-backed antbird	*Poliocrania exsul*	21
Thamnophilidae			15
Thamnophilidae	Bicolored antbird	*Gymnopithys leucaspis*	14
Tinamidae	Berlepsch's tinamou	*Crypturellus berlepschi*	14
Thamnophilidae	Zeledon's antbird		12
Formicariidae	Black-headed antthrush	*Formicarius nigricapillus*	11
Accipitridae	Great black hawk	*Buteogallus urubitinga*	11
Columbidae	Ruddy quail-dove	*Geotrygon montana*	8
Columbidae	Pallid dove	*Leptotila pallida*	7
Trochilidae			4
Grallariidae			4
Thamnophilidae	Spotted antbird	*Hylophylax naevioides*	4
Turdidae	Swainson's thrush	*Catharus ustulatus*	3
Turdidae	Dagua thrush	*Turdus daguae*	3
Conopophagidae	Rufous-crowned antpitta	*Pittasoma rufopileatum*	2
Cuculidae	Banded ground-cuckoo	*Neomorphus radiolosus*	1
Momotidae	Rufous motmot	*Baryphthengus martii*	1
Cotingidae	Long-wattled umbrella bird	*Cephalopterus penduliger*	1
Tinamidae	Little tinamou	*Crypturellus soui.*	1
Ramphastidae		*Ramphastos sp.*	1
Polioptilidae	Tawny-faced gnatwren	*Microbates cinereiventris*	1
Tinamidae			1

Outcome 3: Local bird guide distributed among local communities
100 local bird guides were distributed among three local communities. Online version is available here:

https://www.jocotoco.org/dct/tmp_adjuntos/noEn/000/006/5_Cincuenta_Aves_%20del_%20Ro_%20Canand_gua_%20introductoria_ES.pdf

4. What do you consider to be the most significant achievement of this work?

Forest guards are local community members. They were actively in charge of the installation of camera traps and will be included as co-authors in future publications. Furthermore, one workshop about bird identification was held with local communities. A local guide was distributed among participants.

5. Briefly describe the involvement of local communities and how they have benefitted from the project.

We plan to continue this research in other areas in the northwest Ecuador, focused in the banded ground cuckoo and other terrestrial birds involving other stakeholders also interest in its protection. More funds are need for the develop of a National Plan for the Conservation of the Banded Ground-Cuckoo and for further research of the species.

6. Are there any plans to continue this work?

At least one manuscript will be prepared showing the results of this 1-year research about biodiversity in the choco remnant forests using camera traps. Besides, there are notable observations of reproductive behaviour of some terrestrial birds that will be shared in a short publication. Notable results will be presented in national and regional ornithological and conservation conferences with talks and posters. Finally, one video montage will be prepared with the highlighted videos and shared in social networks.

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

At least one manuscript will be prepared showing the results of this 1-year research about biodiversity in the choco remnant forests using camera traps. Besides, there are notable observations of reproductive behaviour of some terrestrial birds that will be shared in a short publication. Notable results will be presented in national and regional ornithological and conservation conferences with talks and posters. Finally, one video montage will be prepared with the highlighted videos and shared in social networks.

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

Grant was used from August 2020 to August 2021. Afterwards a grant from the Neotropical Bird Club (NBC) was used for the completion of activities. The project had a 6-month delay corresponding to pandemic restrictions worldwide, it affected the schedule for camera traps installation which ended in December 2022. The manuscript will be ready to be published in a high impact peer-reviewed journal by August 2023.

9. 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 TRAP CAMERAS BUSHNELL CORE DS LOW GLOW and accessories (batteries and memories)	4186	4182	-4	
LEADER PROJECT PERDIEMS	569	402	-167	
OTHER EXPENSES	176	179	+3	
FOOD	500	415	-85	
TRANSPORT 12 ROUNDS	569	562	-6	
OVERHEAD		260	+260	Differences were summed up (260.09) and delivered to Fundación Jocotoco as overhead, since they delivered extra time for the project including forest guards time and food.
TOTAL	**6000**	**6260**	**+260**	

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

The manuscript will be developed promptly. We are sure we have gotten interesting results about terrestrial fauna in the choco forest remnants. These results could result in conservation opportunities for some threatened terrestrial birds and mammals.

Regarding the banded ground-guckoo, next steps should be related to the development of a national conservation plan with the involvement of all the stakeholders in the region, besides further research is needed for the species, but it is problematic to study due to its cryptic behaviour. According to the banded ground-cuckoo survival blueprint developed by the EDGE Programme, there is a need to establish a monitoring for the banded ground-cuckoo, to increase knowledge about the species, and to quantify the threats for the species across its distribution. Since the species is difficult to find, to increase local community and stakeholders' participation in conservation science will be crucial.

11. 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?

Rufford Foundation logo was included in 100 local bird guides distributed among three local communities. Online version is available here: https://www.jocotoco.org/dct/tmp_adjuntos/noEn/000/006/5_Cincuenta_Aves_%20del_%20Ro_%20Canand_gua_%20introductoria_ES.pdf

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

Team member	Role
Eliana Montenegro	Team leader, project coordination, data management
Bryan Tamayo	In-situ logistics at Canande Reserve and camera trap installation
José Añapa	Camera trap installation
Ariel Villigua	Camera trap installation
Roberto de la Cruz	Camera trap installation
Juan Pablo Ordoñez	Camera trap installation and Data management assistant

13. Any other comments?

Despite the target species was not found, the project was well developed and obtained interesting results about fauna in choco remnant forests. These results could be used for evidence-based conservation and decision making for land management in private reserves. As the team leader, I am very happy with the results obtained so far. This project could result in further opportunities and funding for the conservation of other species in one of the most threatened ecosystems of the world, the Chocó. It was a privilege to get the Rufford grant, and I am looking forward to continuing working with you.