

Final Evaluation Report

Your Details	
Full Name	Aavika Dhanda
Project Title	Effects of land-use land-cover changes on forest bird communities of Dibang Valley, eastern Indian Himalaya
Application ID	35732-1
Date of this Report	22/08/2023

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
Collect primary data on bird communities				
Assess effects of slash and burn agriculture on bird communities				
Provide bird watching training to the local people				Although there were a few people interested in bird watching around the villages, there were difficulties in regularising the activity. Many people did not want to commit a fixed day/time to the activity, but still showed up whenever it was possible for them.

2. Describe the three most important outcomes of your project.

a). First, I successfully trained my local guide, Mr Kush Mihi, who showed great interest in birdwatching and photography while working with me. After I finished my sampling, I left one of the project binoculars with Kush, and he started conducting guided birdwatching and hiking trips co-organised by his extended family members who are involved in community-oriented tourism. The project has indirectly resulted in Kush becoming financially stable without having to leave his village.

b). Second, I collected the primary data for birds of Dibang Valley which was critical given the region is undergoing massive environmental changes. I will publish my findings which can be used by researchers planning on studying eastern Himalayan avifauna. I am hopeful the project will be critical in forming collaborations and conducting more research on birds of one of the threatened landscapes of the world.

c). Third, the birdwatching sessions provided opportunities of relaxation to women who are otherwise very busy. Although these birds are not new to the locals, the binoculars and field guides made them all very curious. I had set aside 1 hour for each session on Sundays given that village life is busy, but all the sessions lasted for at least 2-3 hours because everyone was very interested.

Forest lands of Dibang Valley, which remain largely unexplored, are now being diverted for commercial activities such as the construction of large dams and highways. Even though my study was conducted on a small-scale focusing on slash and burn practice and the subsequent resulting of isolated patches of habitats, it provides a snapshot of vulnerability of birds of this region to landscape changes.

Thus, the most significant achievement of this work is that it was able to assess what makes eastern Himalayan birds more (or less) sensitive to anthropogenic changes.

3. Explain any unforeseen difficulties that arose during the project and how these were tackled.

I had two foreseen difficulties-

1) I had earlier planned on conducting ecological sampling in 10 plots per habitat type = (10x4), but the terrain and the weather limited me and my guide's ability to visit all the plots in the mornings. I and my collaborators then decided to reduce the number of plots to eight with the same number of repeat visits while ensuring the power of statistical tests would remain unaffected. I successfully finished the sampling in eight plots in four habitats with four repeats each.

2) I organised a total of six birdwatching training sessions with eight people from two villages. However, the participation was from young adults/children/or women. I could not convince men to participate, which initially was albeit disappointing, but I observed that women were more engaging and curious when their husbands were not present. I learnt a lot about agricultural birds from women since they spend a significant amount of their daily time in the crop fields.

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

I ensured that the local communities in Etabe village (where I stayed) and the neighbouring Ahunli village (which Kush Mihi belongs to) are involved in some capacity throughout my stay. Besides conducting a few bird watching sessions with the locals around these villages, I also participated in storytelling about birds- which is a very important part of Idu-Mishmi tradition. Moreover, Kush is now assisting a 2nd year PhD student from Arunachal Pradesh who is working on birds as well, that will keep sustaining his enthusiasm and interest.

5. Are there any plans to continue this work?

I have been continuing my work in Dibang Valley. I conducted another year of ecological sampling from the year 2022-2023 which was funded by other grant bodies. During this time, I also provided internship opportunity to a young Indian ornithologist on avian sampling. The project overall has now generated a robust ecological data on birds of Dibang Valley across seasons and years.

Furthermore, learnings from the bird watching sessions with the locals from the year 2021-2022 have helped me in giving structure to the sessions in the following year with the school children of a secondary school in Aliney village. The school principal is keen on continuing with the sessions with my guidance, which shall hopefully take form of a formalised and regularised programme in coming years. I am also learning the Idu-Mishmi language which has been an icebreaker for the local community and has resulted in more engagement and interest in my work. In November 2023, I

plan on training two interns from the Universities in India on ecological data collection and sampling in Dibang Valley.

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

I am working with my collaborators on the research papers which I plan on submitting by the end of this year to scientific journals. I have already presented some of the results in two international conferences this year- Association for Tropical Biological Conservation held in India and the International Congress on Conservation Biology held in Rwanda, for which I received overall a positive interest from many researchers. After the submission of my PhD thesis, I plan on submitting articles on my findings to the Current Conservation and Mongabay.

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

I plan on sustaining both the parts of the project ecological sampling and bird watching programmes. I am now in the midst of confirming collaborations in India and organisations to explore more avifauna in Dibang Valley. So far, all the equipment that I purchased using grant money has been effective and successful, which will aid in continuing the work in the region. I am also happy to share the equipment with researchers in India and my collaborators for their projects on Himalayan species. I will soon be putting in applications for post-doc positions and although I am not sure where I will be based, I am certain that with the collaborations and regional support, Dibang project will continue.

8. 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?

I used the logo in oral presentations at the international conferences, and in talks at my university. My scholarship at Oxford also wrote a small piece on how Rufford is supporting my field work – <https://www.some.ox.ac.uk/news/oicds-scholar-awarded-rufford-grant-for-research-on-forest-birds-in-eastern-indian-himalayas/>, and some of the snippets were featured in scholarship brochures. I spoke about The Rufford Foundation with many researchers in India and encouraged them to apply. I will be acknowledging Rufford in all the publication outputs and in articles.

9. Provide a full list of all the members of your team and their role in the project.

Mr Kush Mihu- my local guide who helped me conduct field work.

Mr Amboko Tacho- my secondary local guide who helped me conduct field work when Kush Mihu was unavailable.

Mr Bana Tacho- who provided regional knowledge of the landscape and helped us select sampling plots based on vegetation types.

Dr Sonya Clegg- my PhD supervisor at Oxford who helped in designing methodology and in writing.

Dr R Ganesan- my collaborator in India who helped in designing vegetation sampling protocols and in identification of trees.

Dr Ugyen Penjor and **Sumali Bajaj-** My additional collaborators in research papers who are helping in the analysis and ecological models.

10. Any other comments?

I am thankful to The Rufford Foundation for their incredible support, patience and understanding in all the stages of the project. This was my first big conservation grant, and it gave me freedom in shaping my ideas and testing some of the methods in the field. Since 2021-2022 was my first year of ecological sampling in Dibang Valley, it set a strong tone for the further sampling seasons which is now replicable as it can be undertaken by any aspiring conservationist with little guidance. The grant has been instrumental in conducting first intensive ecological survey on bird communities in Dibang Valley, and the support provided will ensure a continued long-term monitoring of avifauna in the region.