

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. The Final Report must be sent in **word format** and not PDF format or any other format. 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. Please note that the information may be edited for clarity. 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	Sanjay Sondhi
Project title	A Lepidoptera Survey to Augment An Ongoing Community Ecotourism in Eaglenest Sanctuary, Arunachal Pradesh
RSG reference	42.11.09
Reporting period	April 2010 to April 2012
Amount of grant	£ 6000
Your email address	sanjay.sondhi1@gmail.com
Date of this report	30 June 2012

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
Generate basic species data in for butterflies in a poorly studied bio-diversity habitat			Fully achieved	380 species of butterflies have been identified including several extremely rare species, range extensions and a new butterfly record for India. A technical paper in a peer-reviewed journal is under preparation to report the findings.
Generate basic species data in for moths in a poorly studied bio-diversity habitat		Partly achieved		Over 1,200 species of moths have been recorded during the survey. Of these, more than 400 species have been identified. Given the poor knowledge of moths in the region, work on moth identification continues. Numerous new moth records for India, as well as several range extensions have resulted from the preliminary work.
Augment the scope of a successful ongoing local community ecotourism venture, initiated by a previous RSG to Ramana Athreya		Partially achieved		<p>The field surveys allowed us to identify the best seasons and microhabitats for Lepidoptera watching. Based on this, Lepidoptera tourism is now being planned at Eaglenest.</p> <p>During the course of the field survey, I had invited numerous butterfly and moth enthusiasts to accompany me. Not only did this generate £2,500 of revenues for the local community but it also served as an advertisement for the Lepidoptera fauna of the area.</p> <p>The first butterfly and moth tour with the support of the local community is planned for Eaglenest from 14 to 20 October 2012. It is intended to conduct 2-3 tours over the next 12 months. This will augment the existing bird tourism being conducted by the local community.</p> <p>Local capability building is one of the objectives of the project that were not achieved and is intended to be done over the next year or two.</p> <p>After starting the Lepidoptera tourism</p>

				at Eaglenest, it is intended to support a local community venture to initiate butterfly and moth tourism at Sessa Orchid WLS and Pakke Tiger Reserve, which is part of my study area.
Laying the foundation for long-term monitoring of weather and its potential effect of faunal populations			Fully achieved	During the field surveys, population data for butterflies was recorded. This is the first time such information has been generated in this area. The population information will serve as a baseline for long term monitoring of the region's habitat and the impacts of climate change. This information will be made available publicly in a technical paper that is being written (as mentioned above).

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

The two most significant issues faced in the project were:

Budget: A 20% appreciation of the Rupee versus the £ meant that less money was available locally to execute the project. This hurdle was overcome by initiating a "volunteers for conservation " (VFC) programme where butterfly and moth enthusiasts were invited for the surveys, and contributed to the costs of the survey. Not only did this help in sharing the costs of the surveys, it generated additional tourism revenues for the local community and served to showcase and advertise the area's Lepidopteran diversity.

Moth identification: Absence of books/publications about moths of the area, limited access to museums, and very few capable Lepidopterists in India who can assist with moth identification meant that identifying moths recorded in the area proved to be an arduous process. This issue was tackled by purchasing available books for moth identification from neighbouring countries (Moths of Thailand, Moths of Nepal) as well as using the support of lepidopterists from S E Asia and NHM, UK.

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

The three most important outcomes from the project were:

- Generated species, location and population data for butterflies, including range extensions and a new butterfly record for India.
- Generated species data for moths, including range extensions and new record of moths for India.
- Generated data about the best seasons/times/locations for butterfly and moth watching, crucial for launching community-based Lepidoptera tourism at Eaglenest, Sessa and Pakke.

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

Interaction with the local communities and the forest department, preparation and display of posters of moths and butterflies helped to increase the awareness of the immense diversity of butterfly and moth fauna in the area, and the need to conserve them.

During the course of the project, the local communities in Eaglenest and Pakke benefitted with the revenue generated from the Volunteers for Conservation programme. In the longer term, revenues generated from butterfly and moth tourism will augment the revenues from bird tourism and serve to further incentivise the local community to conserve their forests.

5. Are there any plans to continue this work?

Yes. It is intended to continue the project with the following objectives:

a. Continue with moth and butterfly surveys to generate additional species and population data. The field surveys conducted in the first phase covered only a few seasons and locations. It is intended to continue with field surveys in the area for the next 2 years. My current field data show that the species accumulation curve has still not levelled out, hence, it is necessary to continue with field surveys in different seasons and microhabitats.

b. Identification of moths: While work to identify the moths continues, it is essential to visit museum moth collections in different parts of the country (e.g. Forest Research Institute-Dehradun, BNHS-Mumbai, Pusa Institute-Delhi) to complete the moth identification.

c. Launch Lepidoptera tourism in Eaglenest and Pakke

While the first steps to launch butterfly and moth tourism have already been taken at Eaglenest, it will need to be supported over the next 2 years to ensure that the tourism is self-sustained. This will include capability and competence building of members of the local community, preparing detailed brochures and manuals for butterfly and moth identification. A separate initiative to support a local community venture at Pakke Tiger Reserve is also being planned.

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

Outreach: Posters for moths of Eaglenest, and butterflies and moths of Pakke Tiger Reserve have been created and distributed to the forest department and the local communities in the study area. These posters will be available on the Titli Trust website (www.titlitrust.com) as a free download.

Website: More than 400 hundred moth species that have been identified during the survey have been posted on the Titli Trust website (<http://www.titlitrust.com/Moths.html>). Other moth enthusiasts in India are already using this as a reference.

Moth folder: A folder with the colour plates consisting of the 400 moth species identified has been prepared. This is being used by members of the local community to spread awareness about moths of the area.

Conference: A presentation was made on the Rufford project at the 3rd Asian Lepidoptera Conference in Coimbatore in 2010. This won the best presentation award at the conference.

Technical Publications: A paper reporting the findings of the butterfly survey, including population data, of the Kameng Protected Area complex is being prepared. This will be published in a leading, peer-reviewed journal. A similar publication for moths will be attempted once the identification work is complete.

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

The RSG was used over a period of 24 months, which was the time frame intended in the original project design.

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 £= INR 68.5

Item	Budgeted Amount	Actual Amount	Difference	Comments
Faunal survey and documentation				The costs of field transport, camping expenses, and wages and expenses of the local team were shared by butterfly and moth enthusiasts who accompanied me during the surveys, reducing the burden on the project.
Travel and per diem of visiting naturalists	2,100	2097	-3	
Field transport and camping expenses	1,900	1675	-225	
Wages and expenses of local team	1,350	1200	-150	
Eco-tourism capability building: books and equipment	350	737	+387	Extra money was spent on purchasing books for moth identification and hiring of generator set.
Institutional and administrative overheads	300	290	-10	
Total	6,000	6000	0	

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

The important next steps are

- Initiate Lepidoptera tourism at Eaglenest WLS and Pakke Tiger Reserve and build local community capability to conduct tourism independently.
- Publish the paper “Butterflies of Kameng Protected Area Complex” in a peer-reviewed journal.
- Complete the identification of moths recorded in the Kameng Protected Area Complex.
- Continue with lepidoptera surveys in the areas and seasons not covered.

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 RSG logo was used in moth and butterfly posters, which are being sent separately to RSG, as well as in a presentation made at the 3rd Asian Lepidoptera Conference which is already on the RSG Website. The RSG logo was also used in the moth folder that was prepared to assist in field identification of moths of the survey area.

11. Any other comments?

Posters prepared with the RSG logo being sent to you separately. These will be available for free download on the Titli Trust website shortly.