

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	Ajay Karki
Project title	Golden Monitor Lizard (<i>Varanus flavescens</i>): Research and Awareness Project
RSG reference	11385-1
Reporting period	Sep 2012-Sep2013
Amount of grant	£4625
Your email address	clickajaya@gmail.com
Date of this report	2 nd Oct 2013

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
Current status, distribution, population size, abundance and density determination		X		Data is collected to fulfil all the objectives; however population size and density are still on analysis phase. I am submitting it to a journal for publication in a month. So it might take 3 more weeks to get final results.
Identification of possible habitats and nesting sites			X	
Finding the reasons for killing the species			X	
Recording of traditional beliefs			X	
Identifying the threats for species			X	
Various awareness activities			X	
Formation of Youth Groups as an awareness team			X	

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

The first difficulty was, the Muslim community did not want to talk about the species. I just know (from the field work) that Muslims consider this species as untouchable and they do not want to see this species around their settlement. It had become really difficult to convince Muslims about the importance of the species. We felt difficulty to include Muslims in Youth conservation group. Finally, we convinced them and been able to include some youths in our conservation team. Next difficulty was to pass through very thick and tall grasses while surveying in the field. We had hired local people as our guide and they helped us to pass through it by breaking the grasses. Next problem was very high abundance of poisonous snake. So nobody accepted our request to visit forest and help us in survey. We had snake proof boot but local people had not. We paid little more money to hire them and they get convinced.

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

Following are the specific outcomes obtained from this project:

- Firstly, we have been able to conduct first research on this species in Jagadishpur area of Nepal.

- We have been able to find out the current status of the species.
- Distribution, abundance, density is determined.
- Threats posed by species is explored.
- Distribution map, nesting map is prepared.
- Youth group is formed to continue their involvement in conservation activities.

Result of each is described below.

Current status and threats: We do not have empirical data from past studies. Thus, one and only way to find the current status of the species is, information from local people. We conducted key information consultation, group discussion and informal discussion with teachers, community forestry members and old people. Everybody mentions that species number and abundance is stable since past 5/10 years but the distribution of species is concentrated only in few areas, particularly, canal (newly constructed), agriculture land and around the fish ponds. Every year many numbers of species are killed both knowingly and unknowingly but the population still seems stable.

Two types of threats were identified from this survey. One is direct and another is indirect threat. Direct threat is killing of species. Fish farming is increasing at rapid pace in the area. Golden monitor lizard preys on fish. So if people see golden monitor lizard around their fish pond they kill the species. Habitat degradation, poisoning, pollution are found as major indirect threats to species. The cumulative effect of both threats may lead the species to further concentration in specific area.

Distribution: Clumped type of distribution is found from our survey. The distribution is concentrated in swampy area, thus this area can be considered as major habitat in Jagadishpur area.

Youth Group: A youth group of nine members (photo attached) is formed. We have tried to incorporate the heterogeneity nature of the community in this group as well. Members from all caste, religion and community including female are included in the group. It is expected that this group will lead in community level conservation awareness. Additionally, we will directly contact this group while implementing any conservation activities in future in this area. Conservation awareness training will be provided to this group via different NGOs. Most of the people in this group are school student, they are future conservationists of the area, and thus every effort will be used to make them available of any opportunities in future. This achievement can be taken as major social-achievement of this project.

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

Local people were involved in many ways. First, they were involved in awareness activities. The benefits to them are they got the knowledge about ecological importance of golden monitor lizard and overall importance of biodiversity conservation. Secondly, local youths were actively involved in formation of youth group. The benefits to them from this conservation group are that they are planning to register this group in District administration office. We are providing assistance to them to register in district administration office. We will help them to refine their constitution (by editing and putting it on government guideline). Once they get the legal status from administration office, they will be contacted by all the researchers who come for biodiversity and conservation related

research. We have expected that this group will be developed as key conservation community level organization in few years.

5. Are there any plans to continue this work?

Yes, we are planning to cover larger geographic area for same species. As far I know this is first study on the species in Nepal. So, we are planning to broaden our database at larger geographic scale. There is still lacking of in depth study on ecology and behaviour of golden monitor lizards in the area- this is highly potential research question to be studied. And of course, strengthening of youth conservation group will be one component in next phase of the project.

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

I am leading to prepare a manuscript to publish it in an international journal. Possibly, we will publish it in PLOS one. Additionally, I have applied for "student conference in Cambridge, UK in 2014". This report will be submitted to Department of Forest, Nepal, Chitwan National Park, Department of National Parks and Wildlife Reserve, District Forest Office Kapilvastu and Village Development Committee (concerned only) with necessary modification.

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

This project was expected to finish by August 2013, however we have been able to finish all the works by September 2013. Main reason behind it are (i) survey was conducted three times (reconnaissance survey and two main surveys), we spent more days than mentioned in proposal (ii) local people (including students) were not available in our pre-planned time frame due to their busy schedule for agricultural works. So, we changed our pre-planned time for local people consultation and youth group formation.

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.

Item	Budgeted Amount	Actual Amount	Difference	Comments
DSA for Researcher and Assistant 35 days @ 30	2100	2700	-600	A total of more than 60 days was spent in field, in three survey periods.
Food (including meetings and group discussion)	250	250	0	
Travel	1100	1000	+100	The estimation was lump sum. So we saved 100.
Awareness and conservation education materials	500	175	+325	We mostly used printed materials. We borrowed printers from our friend in different offices and NGOs.
Equipment	250	0	+250	IDEA WILD USA supported with equipment and we did not buy

				anything
Stationary materials including preparation report	100	100	0	
Postage and communications	150	100	+50	Electronic communication was given priority
Miscellaneous (map production, medicine)	175	100	+75	I did the map production, so need not pay for that.
Local guide hire	0	200	-200	Initially we had not allocated budget for local guide. We tried our self to enter jungle but it was not possible without their guidance, so we hired them.
Total	4625	4625	0	

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

I. Awareness training should be given to fish farming farmers, so that they will not kill this species in future. May be this programme should be conducted in collaboration with District Agriculture office. Another way could be, informing farmers to protect their pond with metal net/wire (golden monitor lizard proof).

II. Poisoning, recreational killing should be strictly controlled via awareness activities. Again, collaboration with District forest office, National Park Authority and District Agriculture office could be a good way.

III. Youth group should be strengthened via various conservation activities and opportunities.

IV. A larger scale study is necessary to know the distribution, population status and ecology at broader scale and eventually to ensure/secure the viable population in the area.

V. Population is concentrated only in some areas. The possible causes for this were found as habitat destruction and degradation. However, a study focusing only on population concentration in specific area might a good research question to investigate.

VI. From the local witness, we concluded that species population is not seen any more from previously found area. Habitat destruction and degradation were assumed as possible causes, but this not final conclusion. This could be another research question to investigate.

VII. In depth study on ecology and behaviour is still lacking, so we have planned to fulfil this gap with another study in near future.

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, we used everywhere (especially in printed conservation awareness materials). Conservationist and researchers in Nepal are familiar with Rufford, so logo itself is enough to them. We especially described to youth group about Rufford and they know a lot about Rufford. They have requested us to collaborate with them in next Rufford project. So, this youth group will be one of our strong partners in next round project.

11. Any other comments?

This study is highly benefitted from expert's suggestions, especially from Professor Karan Shah (Nepalese herpetologist), Dr Ulrich Pietzarka, Professor Jon S. and Dr Shant Raj Jnawali. We highly acknowledge their time and guidance. IDEA WILD supported this project providing equipment for field works, we are very thankful to IDEA WILD. Santosh Bhattarai provided initial guidance in designing the study, he deserves especial thanks. Similarly, special thanks go to Department of Forest, Nepal for granting us permission to conduct this study. Additionally, District Forest Office, *Kapilbastu* and staff supported us during implementation of the project. All field guides, local people, youth groups are acknowledgeable, and thanks for sharing your knowledge and experience. Thanks are due to Bishal Ghimire and Gauri Shankar Timila from Department of Forests, Nepal. Gobinda Shrestha and Dr Shalu Adhikari always inspired me to this research and they guided me to finalise the research plan and methodology, I acknowledge them.