

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	Jigme Tshelthrim Wangyal
Project title	The amphibian fauna of Punakha – Wangdue Valley
RSG reference	10509-1
Reporting period	Final Report
Amount of grant	£ 6000
Your email address	jigmewangyal@gmail.com
Date of this report	November 19, 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
Survey and document all amphibian species of the study area			√	The survey covered the important habitats of the amphibians in the project area which help documentation of the species
List of amphibians of the project to be produced			√	Amphibian species list produced with at least one species expected to be not described before
Report and map the habitat of Himalayan newt and other amphibians			√	Habitat map of the Himalayan newt produced and the finding reported through the November issue of the India based Journal of Threatened Taxa Note
Procurement of guidebooks for the project			√	Books on amphibians of the region including India, China, Nepal and Sri Lanka procured
Procure a good laptop for the project			√	High end Dell XPS laptop procured
Procure a good camera for the project			√	DSLR (D90) camera and associated lens procured
Produce final report(s)			√	Two reports produced and one already published, another to be published soon

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

Except with the species identification which had to be done consulting the herpetologist outside Bhutan (since we do not have experts), there were no problems in conducting the studies. However, small things like communities wondering why we (me and my project colleagues) scoured the paddy fields and forest around the project area even at night happened initially. These small problems were resolved when we involved them to conduct the survey with us. Mass meetings even helped the people to know about the species and their importance.

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

- I. This is the first ever formal study for the amphibians of Bhutan as well as the project area. As such, the importance of this work is immense. Also this work has helped people to understand how important the amphibians are. Two scientific papers have been produced from this project. One on the Himalayan Newts of the project area (already published in November 2012 issue of *Journal of Threatened Taxa* (JoTT)) and another one on the amphibians of the project area (accepted for publication by the interdisciplinary publication of JoTT, the "frogleg").

- II. The reports and the list of amphibians produced by this project will be used by the Royal Government's development and research projects including the forest managers, forest guards, hydropower authorities of the project area, NGOs, students and teachers and interested people to increase their knowledge about amphibians. Further, this work helped the author show which areas are important for conservation ultimately guiding the development planners of the area to come to such programmes that would not have adverse impact on the amphibians. Also, this work helped the author to gain experience on how to go about studying amphibians of Bhutan and have given lots of data for further studies (may be producing an amphibian guide - a near future plan). This experience would actually equip the author for future conservation works on amphibians.
- III. At a time when the country is struggling to quantify biodiversity in order to prove that it has rich biodiversity, the project discovering new species record for the country is befitting. Further, discovery of an anuran which is not described (pending confirmation) from the project area was a standout package of the project. As such, this project has played a role even more important than the national level survey projects.

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

The local communities were involved in three different ways. Firstly, they were interviewed by the project to gather information on the possible sites of the different and various species of amphibians. Door to door visit of the households (for those who lived in the villages, many houses were closed for various purposes) ensured that the community has been part of the project. Secondly, at least three local people from Goemkha, Thinleygang and nearby villages helped the project catch three different species of amphibians. Thirdly, the project ensured to gather people in groups to make them aware of the species. Formal gatherings of the people were taken as advantage by the project to intervene and inform them about the amphibians and their conservation significance. Most of the time, visits to paddy fields where people worked in big group were made so that the project information is disseminated without wasting their time and our time.

5. Are there any plans to continue this work?

Yes, I would like to continue the same work but this time in the east of Bhutan. This is because, just as in the current project area, there is no information on amphibians of eastern Bhutan. There are no such studies done by anyone in the east. Therefore, I look forward for a similar grant from RSGF but this time for the field works alone since I have already good camera, laptop and other necessary things that have been bought using the first RSGF grant. The objectives, reasons for the study and the kind of help needed remain the same with the exception of the project diversifying the area which is expected to result in discovery of more species for Bhutan from the east. Further, second support from RSGF is required to confirm the news species of anuran discovered from the first project.

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

As mentioned earlier at least two peer reviewed papers (one already published and another already accepted) have been produced as the result of this project which would be used by the researchers and policy makers at home and abroad. The papers are:

- I. The distribution of Himalayan Newts, *Tylototriton verrucosus* in the Punakha-Wangdue Valley, Bhutan.

Wangyal, J. T. & D. B. Gurung (2012). The distribution of Himalayan Newts, *Tylototriton verrucosus* in the Punakha-Wangdue Valley, Bhutan. *Journal of Threatened Taxa* 4(13): 3218–3222.

- II. Amphibians of Punakha-Wangdue Phodrang Valley, Bhutan

Wangyal, J. T., & Gurung, D. B. (in press). Amphibians of Punakha - Wangdue Phodrang Valley, Bhutan. “Froleg” an interdisciplinary publication of *Journal of Threatened Taxa*.

- III. Two presentations were made at the College of Natural Resources and a High School in the project area during the project as a part of the knowledge sharing program of the project.

- a) **Herpetofauna of Bhutan.** Presented for the students and teachers of Ugyen Academy, Punakha, as an awareness lecture for saving the lives of the slithering and hopping animals who are killed as soon as they are found before understanding if the animal is harmful or not.
- b) **Herpetofauna of Bhutan.** Presented for the students and the faculty members of the College of Natural Resources, Lobesa, Royal University of Bhutan, on the request of the College management to make the students aware about the herpetofauna of Bhutan.

- IV. A thesis on amphibians of Bhutan (as a part of my in-service BSc Forestry (majoring in Conservation Science) has already been published and some of the information used were from the findings of this project.

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

The fund was received late. However, the following timings were successfully followed without many changes except that the project period included August to October 2011.

1. Procurement of equipment (July – August).
2. Training (July – August).
3. Field surveys (August, 2011 through to July 2012).
4. Species identification and verification (throughout the project period).
5. Specific study on Himalayan salamander (May (2012) – August, September (2011)).
6. Data analysis (throughout the project).

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
Field survey expenses including buying of guide books, specimen jars, etc	£ 1333	£ 1000	£ 333	The budgeted amount was more than sufficient. However, the balance had to be adjusted for

				others.
Digital SLR camera	£ 1067	£ 1300	£ 0	An excellent D90 camera bought from Thailand
Macro lens	£ 600	£ 633	£ 0	Lens specifically required for anuran photography bought
Awareness workshops and trainings	£ 1000	£ 1000	£ 0	Include awareness presentations and field training. Also includes the expenses for visits to the sites where people worked in big groups in their agriculture fields
High capacity laptop	£ 1067	£ 1067	£ 0	Instead of Dell Latitude as specified in the project, Dell XPS (high end) laptop was procured from US
Final report writing and publication	£ 1000	£ 1000	£ 0	Two papers have been published in a peer reviewed journal and a BSc (Forestry) thesis published using information obtained from the project with the additional support of the Royal Government
TOTAL	£ 1067	£ 6000	£ 0	The fund was sufficient

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

Being a taxon that has never been explored and having understood that it is the least documented animal group in Bhutan, I feel that this study should continue in various part of the Kingdom. There is no evidence that suggest the study of amphibians in Bhutan. However, during the last one decade at least 10 new species were described from north-east India. Since Bhutan touches the Indo-Malayan realm in its south, possibilities of discovering new species cannot be ruled out. There may be many species new to science that needs to be described. However, for such studies to continue funds are necessary. Therefore, my further plan is to work on these new species to describe them with other regional and international batrachologists/herpetologists. While it would be daunting task to discover and describe new species, it wouldn't be impossible if there are support from funding agencies such as RSGF and others conservation agencies.

While I look forward for working further on this taxon, I would like to assume that support for such studies will be continued by nature conservation grants organizations such as RSGF and others.

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?

RSGF logos were used while making presentations and talking to people during the field studies. RSGF has been prominently acknowledged in the papers submitted for publications. I also ensured that RSGF has been mentioned adequately in the news item about this study in the national newspaper *Bhutan Times* as a sole source of fund.

11. Any other comments?

I am very much thankful to Rufford Small Grants Foundation and I truly appreciate the role the RSGF is playing in nature conservation throughout the world in its beautiful and actually field oriented ways. Support to individuals and small groups that I have seen through my experience makes such an impact on conservation that they become a national and international projects later, because of the critical nature of their findings. The support rendered to me has helped in establishing amphibian diversity of Punakha -Wangdue Valley. The project has assisted me in becoming a better field ecologist and a better conservationist. As such, the project I believe is a giant step forward towards awareness and long term conservation of amphibians in the project area as well as the Kingdom which will also benefit the world at large.