

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	Ganga Ram Regmi
Project title	Population Status, Threats and Conservation Measures of Assamese Macaque (<i>Macaca assamensis</i> McClelland, 1840) in Langtang National Park, Nepal.
RSG reference	RSG 33.11.07
Reporting period	August, 2008
Amount of grant	£1155
Your email address	regmigr1978@yahoo.com
Date of this report	07, September, 2008

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
I. Population Status			√	It was possible due to perfect field methods and better analysis
II. Threats			√	It was possible due to good research design and support from local farmers
III. Conservation		√		Conservation activities could not be performed fully due to budget constraint. Only conservation education programme for primary students in few local schools was carried out and no any printed materials were published due to the lack of sufficient budget.

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

During the project, due to underestimated budget, one of the project objectives (conservation activities) was not fully achieved and thinking that would be conducted in future project, only one day conservation education programme in each school was carried out in few local schools to foster the interest from local people for the conservation of Assamese macaque.

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

I. Population Status of Assamese macaque in Langtang National Park

A total of 213 Assamese macaques (*Macaca assamensis*) were encountered in 9 groups within the total area surveyed of 113 km² at Langtang National Park. The group density was found to be 0.0790 groups / km² with a population density of 1.8691 individuals/ km² and a mean group size of 23.66 (Range 13-35) individuals. Group size showed a great intraspecific variance among populations of this species in the area. Since larger groups prevailed in group encounters, further research should be attempted to explain whether the high predation pressure or between or within-group competition is responsible for large group size of Assamese macaque in the area. Age-sex composition of the macaque comprised 31% adult females, 16% adult males, 18% young, 16% Juveniles and 19% were infants in the study area. The adult sex ratio and the recruitment rate were found to be 1:1.92 and 0.61 respectively.

II. Threats to the species in the area (crop-raiding and its consequences)

The estimated crop damage from 75 households was about Rs. 150,000 per annum with the average of Rs. 2,000 per household. Presence or absence of macaque damage is significantly related to the distance of the farm from the forest ($\chi^2 = 30.9$, df = 2, P << 0.05). Therefore the crop-raiding incidents were highly clustered near the forest. The costs of crop protection per household ranged between Rs.500-1500 per household per year, which comes to Rs. 37,500- 112,500 for 75 households. It was found that Assamese macaques spoiled more crops than they actually eat;

juveniles and infants in particular brought about damage during play on the ground. The major crops: maize, potato wheat, buck wheat, millet, and others were found to be raided by Assamese macaque in the area. Among these, maize cobs were found to be highly preferred (62%) followed by potato tubers (23%). The most commonly used crop protection strategy was constant vigilance during crop seasons used by 60 % of the farmers in the study area. This severe localized crop damage results from the negative attitudes of the local subsistence farmers with respect to food security towards this species and makes it more vulnerable. Besides this most common form of human-macaque conflict, other threats come from expanding human populations and encroachment upon Assamese macaque habitat particularly due to rapid logging for timber to manufacture tourist lodges and hotels and to fulfil the demand of firewood in these harsh areas.

III. Conservation measures

Agricultural crop and livestock depredation by wildlife results in disputes between the park authorities and the local people. Potential solutions recommended here emphasize the need for the Park administration to either accept responsibility for the protection of crops and livestock from the park's wildlife or to take measures immediately to minimize them and increase the level of tolerance of the local people for sustainable conservation. Additionally, the sharing of park revenues with local people may also help to lower conflict levels and change the perceptions of locals towards park wildlife. Site-specific conservation measures with development and distribution of outreach materials to local stakeholders should be carried out to foster interest from locals in primate conservation.

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

Local professional development

This research project provided opportunity to one local youngster to serve as local guide and trained him as assistant field researcher. He will be available for field assistant in future primate and wildlife related project and conservation work as part of the scientific team helping to conduct follow up studies.

Involvement of the local people

Besides the main guide, additional assistant was selected from local villages and provided a temporary income to that local. Our research team, through its presence in the remote areas, had beneficial impacts on the local citizens and helping raise conservation awareness for the species as a whole.

5. Are there any plans to continue this work?

Yes

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

The results of the work will be disseminated to the concerned authorities like Department of National Park and Wildlife Conservation (DNPWC), Ministry of Forest and Soil Conservation (MOFSC), INGOS like WWF Nepal, IUCN Nepal and to the Central library in the report form. The results will also be trying to publish in one of the reputed journals like Nepalese Journal of Zoology, Himalayan Journal of Science, Bombay Natural History Society Journal, Oryx etc.

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

The RSG used during the field study period of the project from March 2008-July 2008. This covers the major project period about 4 months out of 7 months, the actual length of 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
Transportation	£ 48	£ 58	£ 10	Due to increasing transport fare than expected one previously/PSGB
Field supplies	£ 105	£ 105	No	PSGB
Accommodation and Subsistence in the field	£ 600	£ 600	No	RSG
Daily stipend for local field assistants	£ 600	£ 600	No	RSG+PSGB
Conservation activities	£ 52	£ 52	No	PSGB
TOTAL	£ 1405	£ 1415	£ 10	

Local Exchange Rate: £ 1 = NRS 120

PSGB=Primate Society of Great Britain

RSG=Rufford Small Grant

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

After the completion of this project, I am feeling about conducting the conservation activities and regular population monitoring of Assamese macaque in the area since this study has indicated that Langtang National Park is the prime habitat of Assamese macaque.

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?

No

11. Any other comments?

I think most of the applicants who want to apply for RSG have been facing the problem about three confidential references and due to this they could not able to send the application. For amateurs, it is difficult to find 3 referees including one international referee. So, I think it is better to ask only one or two referees and not compulsory international referees.