

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	Rajeev Raghavan
Project title	Mahseer as flagships for freshwater fish conservation in Western Ghats: participatory assessment of stock status and harvest levels in Chalakudy and Periyar River(s) of Kerala, India
RSG reference	65.06.08
Reporting period	November 1 2008 – January 31 2010
Amount of grant	£6,000
Your email address	rajeevraghavanp@yahoo.com
Date of this report	22.04.2010

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
Informal workshops for local fishers			X	Local fishers harvesting Mahseer at the different study sites attended informal workshops and group discussions convened by the project team. They were appraised regarding importance of the project and the need for their involvement and assistance. The fishers showed willingness to participate in the project and assured help with data collection.
Training for local communities in data collection			X	Two fishers each from different study sites were provided hands-on training in collection and recording of data on length and weight measurements of fish.
Population dynamics and demography			X	Monthly data received from local fishers were found to be suitable for analysing population dynamics and stock structure of Mahseer at different sites.
Biology and Life History			X	As directed, the fishers at various study sites helped to collect representative individuals of Mahseer every month and store them in formaldehyde. These samples formed the basis for the examination of biology and life history parameters.
Migration	X			Although the project team tagged and released 50 individual Mahseer at various study sites, none except two could be recaptured. The exact causes for this need to be still identified.
Stakeholder Workshop			X	Local fishers, local government officials, researchers and representatives from NGO's attended the stakeholder workshop, where the results of the project were discussed.

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

None

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

1. In spite of its endangered status (IUCN 2009) the Deccan Mahseer, *Tor khudree* is subjected to severe overfishing in its native ranges in the Western Ghats Biodiversity Hotspot in India and its fishery is under threat of an imminent collapse.
2. Harvesting regimes (Commercial Vs Subsistence) and fishery areas (Inside Vs Outside Protected Areas) have no significant influence on the exploitation rate, fishing mortality and growth performance of Deccan Mahseer.
3. Local communities can be effectively utilized for collecting valuable data on fish catches as well as body measurements which serve as baseline information for stock assessment and population dynamics studies. The success of participatory data collection in this study opens an opportunity of using it as a good model for replication in remote areas (elsewhere) in the tropics, where data collection for fisheries is currently constrained by lack of manpower and accessibility.

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

Local (tribal fishers) communities were vital elements to the implementation of the project and its successful completion. Local fishers were involved at all stages of the project from initial scoping studies (to fix study sites) and workshops (appraising fishers on importance of the project, objectives and long-term benefit) to final decision making (suggestion of conservation/management plans).

Local fishers were trained in simple data collection (determining length and weight of fish for scientific research) and record keeping. Through this, the fishers have received honorarium as well as capacitated to coordinate/participate in the conduct of future field surveys and research on fisheries in the study region.

5. Are there any plans to continue this work?

Yes, the project team looks forward to continuing this very important work on the Deccan Mahseer in the Western Ghats by developing a co-management plan for sustainable fishery. The project team is currently carrying out scoping studies in the study region as well as interacting with local governments and state fisheries department to develop a proposal for initiating co-management approaches to Mahseer fishery in the remote forest streams of the Western Ghats. The project leader is also looking forward to submitting a second Rufford Grant proposal to take up this work.

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

A detailed project report is being prepared. Copies of this report will be submitted to the state Fisheries and Wildlife Departments; Ministry of Environment and Forest of the Government of India, and WWF-India. An electronic copy of this report will also be posted on the website of the Rufford Small Grants Foundation, enabling it to reach the wider conservation community.

The team leader of this project is also one of the experts from within Western Ghats assessing the status of freshwater fishes of this Hotspot as part of the on-going IUCN Freshwater Biodiversity Assessments. The data generated through this project will be fed to the IUCN Species Information

System (SIS) and to the Red List of Threatened Species. The details of Deccan Mahseer available on the SIS and Red List will hence be updated using the project results.

The result on population dynamics of Mahseer generated from this study has been accepted for presentation at the upcoming meeting of the IUCN Freshwater Fish Specialist Group at Chester Zoo, UK and after receiving expert comment's, a manuscript will be prepared and communicated for publication in peer reviewed journals.

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

November 1, 2008 to February 25 2010

The project was scheduled to start in November 2008 and end in January 2010 (15 months as mentioned in the proposal). However, there was a delay of 1 month (February 25, 2010) before the project could actually be completed.

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
Travel	3200	3290	+ 90	There was a huge increase in fuel charges over the last one year.
Supplies	1075	1115	+ 40	Increase in value added tax during the last one year for certain goods in the study region.
Hiring	625	645	+ 20	There was an increase in the actual number of days where guides and forest guards were used during scoping surveys.
Food and accommodation	800	795	- 5	
Workshops	200	220	+ 10	
Documentation and Report	100	90	- 10	
TOTAL	6000	6155	+ 155	

1 £ -80 Indian Rs

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

Managing Mahseer fisheries in the Western Ghats will depend on a combination of strategies including captive breeding for stock enhancement, technical measures of fishery management including restrictions on size and type of gear, as well as closed seasons. However, the region has no history of fisheries management in freshwaters and so development and implementation of such plans will need to be exercised with caution. There is an urgent need to bring awareness among local fishers on the need for such management plans, and their long-term benefits.



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 on banners displayed during the training programs and workshops at the various study sites. The Principal Investigator of the project presented two invited talks on freshwater fish conservation at a national and international conference in Kerala (India), where the current (Rufford) project and its role in freshwater fish conservation was given publicity.

An abstract comprising the main results of the project has been submitted to the organizers of the International Symposium on Global Freshwater fish conservation: linking *ex situ* and *in situ* actions to be held at Chester Zoo during April 2010 and has been accepted for presentation.