

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 | Abebe Getahun |
| Project title | The impact of sand mining and irrigation canals on the spawning migration of <i>Labeobarbus</i> spp. of Lake Tana and possible mitigation measures. |
| RSG reference | 12755-B |
| Reporting period | February 2013 to March 2014 |
| Amount of grant | £12,000 |
| Your email address | abebe12002@yahoo.com and Zool_cns@aau.edu.et |
| Date of this report | 06 June 2014 |

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 |
|---|--------------|--------------------|----------------|---|
| Scientifically study the extent of the impact of sand mining on the migration of the <i>Labeobarbus</i> spp. | | | √ | Sand mining is confirmed to be a serious problem in deterring the migratory routes and also destructing the spawning habitats of some of the tributary rivers of Lake Tana |
| Identify the impact of irrigation canals on the migration of the <i>Labeobarbus</i> spp. of Lake Tana | | | √ | Several hundred specimens of juvenile <i>Labeobarbus</i> spp. and also other smaller species like <i>Garra</i> and <i>Barbus</i> spp. enter into irrigation canals while coming back to the lake after spawning. |
| Awareness creation among fishermen, development workers and local officials on the threats on the migratory <i>Labeobarbus</i> spp. | | | √ | We have taken advantage of the World Fish Migration Day that took place on 24 May 2014. We were able to voice our concerns with a successful march we made on the streets of Bahir Dar Town, adjacent to Lake Tana, which enabled us to create awareness among a wider sector of the society including decision makers. |

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

- We believe that the project has run smoothly except that the time to finalise the workshop and report has been extended, for which the Foundation has been informed. The reason for the extension was the fact that the World Fish Migration Day was lately known to be celebrated worldwide on May 24th 2014 and we decided to celebrate the day in a wider awareness creation campaign that involved several stakeholders. Hence the time of reporting is extended to June 2014.

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

- We have collected credible information on the extent of sand mining processes from selected tributary rivers of Lake Tana and potential and actual negative effects of this practice on the spawning migration of the *Labeobarbus* of Lake Tana. This data is also part of an MSc thesis.
- Adequate data have been collected and compiled on the extent of the impact of irrigation canals in diverting the normal routes of juvenile *Labeobarbus* spp. on their way back to Lake Tana.
- Taking advantage of the World Fish Migration Day, the threats posed on the migratory *Labeobarbus* spp. have been popularised using banners, street marches,

seminars and leaflet distributions. The event was very much visible and colourful as the marches along the streets of Bahir Dar, the Region's capital city located at shores of Lake Tana, was accompanied by the Police Marsh. Thousands of people have been sensitised about the importance of the fish resources and the various threats posed on them (pictures relevant to the event are posted on the project's web page).

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

- The local community was involved at all levels of the research on the impacts of sand mining and irrigation canals as well as while celebrating the World Fish Migratory Day.
- Local fishermen, sand miners, traders and farmers that are using irrigation canals were all involved in the data gathering process through direct interviews and questionnaires prepared for this purpose.
- The awareness creation workshop largely focussed on the problems of the local fishermen and finding alternative solutions in developing aquaculture and other livelihood generating mechanisms.

5. Are there any plans to continue this work?

- Using grants from Rufford Foundation and others, we have so far properly identified the extent of the problems and we know well the behaviours of the species. We will now focus on finding mitigation measures. There is a good start on simulating the reproduction of the *Labeobarbus* spp. in ponds and aquaria so that the lake could be restocked and also for long time *ex-situ* conservation of the species. We have the idea of developing alternative fisheries (livelihoods), through development of hatcheries of the common culture species, in order to reduce the pressure on the natural system (capture fisheries).

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

- An MSc thesis will be produced out of the works on sand mining and irrigation canals which will be shared by the scientific community. We will get some peer reviewed articles published from the data on sand mining and irrigation canals. The results of this project will be presented in National forums especially meetings of the Ethiopian Fisheries and Aquatic Sciences Association (EFASA).

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

- The project's proposed time line was from February 2013 to March 2014. However, after we received information, recently, that the World Fish Migration Day was to be celebrated on 24 May 2014 we decided to extend our awareness creation activities to this day and the final reporting day has been delayed, accordingly.

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 |
|---|-----------------|---------------|------------|--|
| Fishing gear and chemicals | 800 | 1200 | +400 | The items were purchased for |
| Vehicle rental (Mileage) | 1500 | 1500 | -- | |
| Fuel | 1000 | 1000 | -- | |
| Accommodation and daily subsistence for investigators | 1700 | 1500 | -200 | |
| Fishermen expenses | 500 | 800* | +300 | |
| Assistants | 500 | 600* | +100 | |
| Leaflet preparation | 1000 | 1000 | ---- | |
| Leaflet publication | 800 | 1000 | +200 | Big banners were also prepared |
| Leaflet distribution | 100 | -- | -100 | Distributed by participants of the march |
| Preparing mass media materials | 500 | 500 | --- | |
| Mass media usage | 800 | 800 | ---- | |
| Stationery and secretarial services | 500 | 500 | ---- | |
| Workshop registration package | 200 | 200 | ---- | |
| Workshop lunch | 300 | ---- | -300 | Covered by another sponsor* |
| Workshop refreshments | 100 | ---- | -100 | Covered by another sponsor* |
| Per diem for workshop participants | 600 | 500 | -100 | Only those that have gone from Addis Ababa; the other covered by other sponsors* |
| Transport expenses for workshop participants | 500 | 600 | +100 | This includes mileage paid for vehicles that go from Addis to transport materials for the World Fish Migration Day |
| Workshop venue | 300 | --- | -300 | Covered by another sponsor (ADA) |
| Air transport | 300 | 300 | ----- | |
| Total | 12000 | 12000 | | |

*Other sponsors such as Critical Ecosystem Conservation Fund, Mohammed Bin Zayed Species Conservation fund, Bahir Dar University and other local sponsors were involved in the organization of the World Fish Migration Day that took place on 24 May 2014.

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

- In the long term, we need to establish the pattern of the migration of the different species of *Labeobarbus* through tracking methods (tagging, radio telemetric methods, etc.).
- We need to look into alternative livelihoods for the fishermen and alternative ways of production of fishes in order to alleviate the pressure that could otherwise be exerted on the *Labeobarbus* spp. by the capture fisheries in the lake.
- The awareness creation and consolidation process need to continue persistently.

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, the logo of Rufford Foundation, together with the logos of the Addis Ababa and Bahir Dar Universities, has been displayed in banners (pictures posted on the web) and properly acknowledged during the seminars and marches that took place on 24 May 2014 in Bahir Dar Town, Ethiopia. Due acknowledgments were made in all presentations including the MSc thesis.

11. Any other comments?

The support from Rufford Foundation and the work done so far has opened ways to other institutions to be interested in supporting the conservation efforts in Lake Tana. We would like to thank Rufford Foundation for the support we received without which we couldn't have done what we have achieved so far. The contribution is having immense impact on the long process of saving this unique group of fishes in Lake Tana. We have the utmost confidence that will continue in the future so that our efforts will bear fruit and we can save these species for generations to come.