



## The Rufford Foundation

### Final Report

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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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

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Grant Recipient Details	
Your name	BEAVEN UTETE
Project title	Conservation status and impact of a restricted endemic and endangered short lived turquoise killifish in the lowveld region, Zimbabwe.
RSG reference	17425-1:
Reporting period	Final period
Amount of grant	£4749
Your email address	mkaiyo@gmail.com
Date of this report	18/10/2016

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
To determine and document the ecological environmental implications of turquoise killifish in temporary pans in the lowveld region of Zimbabwe		X		We require further time and funding to complete the detailed documentation of the ecological implications of the turquoise killifish in temporary pans The results we have are preliminary and give a little insight into the full ecological picture.
To understand and document the local perspective on the significance of temporary pans as a habitat of socio-economic significance.		X		This objective was challenging as the local communities offer stiff resistance to outsiders and only opened up after we fully involved the local chiefs and political leaders. Though, we explored and now partially understand the local perspective on the significance of temporary pans as a habitat of socioeconomic significance.
To instigate conservation awareness of both the turquoise killifish and preservation of their habitat i.e. the temporary pans in the lowveld region of Zimbabwe		X		We held awareness campaigns to highlight the delicacy of temporary pans and the ecological as well as the socioeconomic significance of the turquoise killifish to local communities in the Lowveld region and Zimbabwe as a whole with full posters and tear drop banners bearing the Rufford Small Grants logo being the main instrument of information.
To engage local authorities in conservation			X	We managed to not only increase the conservation awareness and habitat restoration of delicate temporary pans in

<p>awareness and habitat restoration of degraded temporary pans in the lowveld region of Zimbabwe.</p>				<p>the Lowveld but we have kick started a process of resuscitation of completely dried up pans through diversion of stream channels in the Gonarezhou National Park. This programme is being led by a team of parks authorities and local authorities we trained in the duration of the project.</p>
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**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).**

Accessibility to some sites in the rough and rugged terrain of the Gonarezhou National Park was impossible especially in the rain season and this limited the mapping and sampling of some temporary pans. Some sections of the Gonarezhou National Park encroach into the neighbouring Mozambique, therefore we could not access some communities living there, due to the need for official protocol. Also the danger of landmines left in the ground during the war of liberation for Zimbabwe, limited exploration of some parts of the Gonarezhou National Park. The conservation awareness campaigns for schools were made difficult by the red tape bureaucratic protocols to be followed in Zimbabwe. However, we roped in the National Parks Authority, and a local university, Great Zimbabwe University, who provided a platform for us to access school children through their environmental awareness campaigns and career guidance tours in the Lowveld regions.

There is a lack of local ecological data on the turquoise killifish in Zimbabwe, therefore to obtain the research permit was a challenge due to the government red tape and this delayed the start of the project. Due to the fact that this research was being led by university based researcher we were eventually allowed to conduct it.

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

We are in the process of detailing and documenting the ecological impacts of the turquoise killifish in temporary pans in the lowveld region of Zimbabwe.

We successfully instigated conservation awareness of both the turquoise killifish and preservation of their habitat in some temporary pans in the lowveld region of Zimbabwe.



We have managed to explore the local perspective on the significance of temporary pans as a habitat of socio-economic significance among adjacent peripheral communities which is a vital step towards the conservation of the killifish.

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

Every care was taken to rope in the local community, as we believe the success of any conservation and wildlife management project hinges on the willing participation of the local community. The local parks authority, school heads and local traditional leaders as well as unemployed youths were roped in at different stages of this project. We also trained enumerators from adjacent communities on capturing the local perspectives towards turquoise killifish. We are in the process of resuscitating dried up pools in collaboration with the Gonarezhou National Park authorities involving local youths as part of long term sustainable efforts to conserve aquatic biodiversity.

**5. Are there any plans to continue this work?**

We have kick started this hitherto unexplored significant research in Zimbabwe, and therefore we have plans to continue detailing and documenting the ecological impacts of the turquoise killifish in temporary pans in the lowveld region of Zimbabwe. We believe there are more undiscovered ecological relations between the turquoise killifish in temporary pans and some endemic aquatic invertebrates. However, we have ongoing community based awareness programmes in the area which need further monitoring. The ultimate aim is to provide a management framework for the endangered turquoise killifish in temporary pans and a temporary pan conservation strategy and action plan using the data from this research. Hence we want to continue with this work.

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

We have already made exhibition posters and tear drop banners that we are distributing in schools in and around Gonarezhou and Zimbabwe documenting the ecological significance and the local perceptions towards the turquoise killifish in temporary pans in the Lowveld region. Also we have presented the preliminary findings of this research at the Research Intellectual Output, Harare Trade Fair, Zimbabwe International Trade Fair (ZITF) and World Environmental and Water Days

with overwhelming responses and intend to present the consolidated results in upcoming international conferences. We are in the process of writing two publishable manuscripts that we intend to publish with high impact reputable journals so as to disseminate the results for an international audience.

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

Due to the red tape mentioned earlier we had delays with the research permit issue though we started the research on time 1/11/2015 and this fits in well with the actual length of the project. We underestimated the financial and logistical requirements to sample the Lowveld region hence our plea to have an extension 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
Vehicle hire (300kmx9trips@£0.95)	1890	2565	-675	In Zimbabwe the prices of fuel keeps rising and fluctuating such that we had underestimated the true value.
Diesel fuel	528	858	0	Though we needed to stay within our budget fuel prices in Zimbabwe have been rising and we were forced to re adjust the budget.
Local field assistants (2 x £7.00 x 24 days)	336	336	0	The local assistants were quite helpful, though we had to negotiate with them to accept the figures budgeted for as we needed to stick to our budget.

Digital Camera	215	150	+75	We had to look for cheaper camera alternatives.
Detergent and Absolute Alcohol (Preservative)	35	35	0	This was acquired at the correct cost.
Laptop	700	500	+200	We looked for cheaper alternatives so as to re allocate funds towards data acquisition.
Fish Field guide	30	30	0	This was acquired at the correct cost.
Hand held GPS	120	120		This was acquired at the correct cost.
Stationary and communication	175	175		This was acquired at the correct cost.
<b>TOTAL</b>	4749	4769	20	

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

We feel if there are more resources availed, we could go on to document the total and hotspot distribution of the turquoise killifish and the adjacent peripheral human communities in order to detect potential human wildlife conflicts through desiccation of the temporary pools. We aim to in the long term detail the interactive effects of the killifish on the aquatic food web in temporary pools so as to understand their contribution towards aquatic invertebrates' community assemblages in temporary aquatic ecosystems in Zimbabwe. We intend to document the perceptions of the local communities and relate them to the economic benefits to be derived from conservation of the short lived turquoise killifish and its delicate pan temporary pan systems. Also, mapping of the distribution of the located species is still pending and requires further funding.

**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?**

We used the RSGF logo when we presented the preliminary findings of this research at the Research Intellectual Output, Harare Trade Fair, Zimbabwe International Trade Fair (ZITF) and World Environmental and Water Days.

**11. Any other comments?**

Our sincere, heartfelt and deepest gratitude goes to RSGF for giving us an opportunity and the capacity to do this project.

