

## 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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

Grant Recipient Details	
Your name	Vincent Shacks
Project title	Okavango Crocodile Monitoring Programme
RSG reference	<b>32.02.08</b>
Reporting period	March 2008 – March 2009
Amount of grant	£6000
Your email address	vshacks@gmail.com
Date of this report	03/03/2009

**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
Spotlight Surveys			X	A full-length spotlight survey was carried out in September 2008.
Nesting Surveys		X		Bi-Annual nesting surveys are being carried out (2009 being the next full survey) while all farm collected nests have been recorded in the central database.
Pesticide Working Group Formation			X	The Okavango Pesticide Working Group has been formed which is working through Rhodes University in South Africa under the supervision of Professor Nelson Torto and Professor Fred Ellery. Vince Shacks has begun a PhD study on the Persistent Organic Pollutant contamination of Nile crocodiles in the Okavango.
Genetic Data Collection	X			Increased water levels in the Boteti lead to large scale dispersal and logistical problems in capturing the Boteti crocodile population. No genetic data could thus be collected.
Crocodile-Human conflict mapping		X		The mapping exercise is still currently under way and will be built into the larger database management system. The Problem Animal Control (PAC) department have also agreed to collaborate with the researchers on all problem crocodiles that are reported in order to explore other alternatives to destruction, such as relocation to other wild areas or to the crocodile farm.
Croc Farm Release Programme			X	The first release of farm reared crocodiles collected from the wild as eggs, was carried out in September 2008. This is the first time in the history of Botswana that a crocodile farm has ever released animals back in to the wild. The researchers were responsible for setting up the release programme as well as collecting measurements and genetic samples from all the farm released animals.
Database Management System for Wildlife Department		X		The database management system is still under construction.
Kajaja Sanctuary Development		X		The development of the Kajaja Wildlife Sanctuary is a long-term objective of the programme. The project has to date registered the Kajaja

				Community Trust with the Community Based Natural Resource Management (CBNRM) registry at the department of wildlife. A full management and tourism feasibility plan was developed for the community and an application for a community owned eco-tourism lodge has also been put forward to Botswana Tourism.
Conservation of Okavango Delta Population			X	Various reports and more specifically the management plan developed by the research team have led to the decision by Botswana's government to drastically reduce the hunting quota on crocodiles in the Okavango Delta.

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

The unexpected flow of the Boteti River (which has had no water for the past 20 years) made captures of the Boteti population impossible. No new genetic data was thus collected from this isolated population.

Financial problems were experienced when an expected donor for fuel fell through. The team had to acquire funds and sponsorships from local tourism operators in the area, who assisted with fuel and accommodation.

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

The successful release of the first batch of farm raised crocodiles back into the wild was a first in the history of Botswana. Crocodile farms have always been obliged to release 5% of all collected eggs back into the wild at a certain total body length of the crocodile. The Wildlife Department have never had the expertise or capacity to plan or implement such programmes in the past and this led to thousands of eggs being collected in the past with no releases back into the wild. The programme will be carrying out the second release in September 2009 and hopes to coincide this release with a re-capture session in order to assess the movement of released animals as well as any change in body condition or health. This data will be used to adjust the release programme in order to give these crocodiles the best chance of survival in the wild. Recaptures of farm released crocodiles will provide very new and useful data on the success of farm released animals back into the wild. The OCMP also succeeded in decreasing the annual quota of crocodiles for hunting in Botswana. This was a recommendation of a previous management plan and the team continued to press this issue to the wildlife department as no quota for hunting should be set until an accurate picture of population trends can be established.

The formation of the Okavango Pesticide Working Group has been a huge achievement for the monitoring programme as this group will attempt to assess the contamination of crocodiles for Persistent Organic Pollutants such as DDT. A PhD study will be carried out by Vince Shacks, who will assess baseline contamination of crocodiles as well as trying to identify the source of these harmful contaminants. Botswana is a signatory of the Stockholm Convention in which countries commit to researching and reducing the use of certain Persistent Organic Pollutants (POPs) which have been seen to be harmful to the environment as well as human health. Mr Shacks will be working under

the supervision of Professor Nelson Torto and Professor Fred Ellery of Rhodes University. Crocodiles have the ability to permanently store contaminants in their fatty tissue and are thus very effective species for monitoring the health of the entire system as they are top predators.

The development of a management and tourism feasibility plan for the Kajaja Community Trust is a very important step toward the eventual implementation of a wildlife sanctuary in the Kajaja Area. This area has shown great significance for crocodile nesting along with the potential of a community based eco-tourism lodge. The sanctuary would thus provide a very effective conservation area as well as a sustainable form of living for the unemployed members of the Kajaja community. The Kajaja area has remarkable potential for tourism as well as stakeholders who are very interested in the upliftment of the area and its people.

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

The Kajaja Community Trust was formed when local stakeholders and the Okavango Crocodile Monitoring Programme (OCMP) combined ideas on how this area may become a protected area in the future. This section of the Okavango River is currently unprotected but holds massive potential for tourism. Members of the Kajaja community have shown great interest in transforming this area from its current highly intensive cattle basis to one of sustainable tourism. The OCMP helped get the trust registered with Community Based Natural Resource Management (CBNRM) registry at the department of Wildlife and National Parks, and with this indicated to government the community's commitment to changing their livelihoods. The OCMP developed a management and tourism feasibility plan for the community in an attempt to accurately assess the feasibility of an eco-tourism lodge. The results were very satisfactory and were also in line with government's future plans for the area. An application for tourism bed nights has been put forward to Botswana Tourism Board and it is hoped that this application will be successful, thus beginning the process of having this entire area protected as a wildlife sanctuary with low intensity tourism use only. This community initiative aims to be a leading example of community based natural resource management in Botswana in the future.

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

Yes, the monitoring work will continue for the next 4 years in the area in order to establish data for a 5-year period. The PhD study on POPs will also be carried out over the next 4 years as well as the continued work on the Kajaja Eco-Tourism lodge and wildlife sanctuary.

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

The OCMP have a close working relationship with the tourism stakeholders in the area and regularly attend meetings and workshops facilitated by the tourism sector. Research results are communicated at all of these conferences and meetings. All relevant reports, manuals and management plans are deposited with the Okavango Research Centre (ORC) library at the University of Botswana (Maun Campus). All members of the community have access to this library and most scientific research in the Okavango makes use of this library as its source of literature. A OCMP quarterly newsletter has been developed and this will be delivered to all wildlife, tourism and governmental departments on a quarterly basis.

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

The RSG was used over a one-year period and the project aims to proceed for a 5-year period (2008-2012).

**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
Boat	2734-37	2734-37	0	Exchange rate at time of grant was (£)1:12.8 (BWP)
Motor	2343-75	2343-75	0	
Fuel	757-82	757-82	0	
GPS	164-06	164-06	0	
TOTAL	6000-00	6000-00		

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

The most important next steps are to continue the basic monitoring (nesting, spotlight surveys and farm releases) and to carry out the baseline pollutant study (PhD study). The long term goal of the Kajaja wildlife sanctuary needs to continue to the next step, which is the development of the community lodge.

**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 project produced a total of 4 documents which have been delivered to the necessary stakeholders and they all included the Rufford Logo. Our internet Blog also featured the logo as well as the newsletter. The Rufford logo is still displayed on the boat and receives good exposure to all the international tourists visiting the area. The research work is all based out of a tourism lodge on the Okavango River (Nxamasere Lodge)

**11. Any other comments?**

The boat has been extremely valuable in our work and the crocodile research group appreciate the support of the RSGF greatly. We hope to be able to extend our working relationship into the very significant pesticide study which has recently begun.