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	Gilbert Baase Adum
Project title	Scaling up Habitat Restoration and Conservation Activities to Save Ghana's Critically Endangered Giant Squeaker Frog (*Arthroleptis krokosua*)
RSG reference	16578-B
Reporting period	One year
Amount of grant	£10,000
Your email address	gilbert@savethefrogs.com, adumgilbert@gmail.com
Date of this report	January, 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
Establish community tree nurseries to raise and plant native seedlings.			√	We established three community tree nurseries that are continuously supplying seedlings for replanting in degraded habitats of the giant squeaker frog. To date we raised +5,000 seedlings of 13 native tree species: Limba (*Terminalia superba*), African mahogany (*Khaya anthotheca*), kapok (*Ceiba pentandra*), Gedu Nohor (*Entandophragma angolense*), Afromosia (*Pericopsis elata*), Akan-Brong (*Argomuellera macrophylla*), Bombax (*Bombax buonopozense*), Emeri (*Terminalia ivorensis*), Mansonia (*Mansonia altissima*), Potrodom (*Erythrophleum ivorense*), Wawa (*Triplochiton scleroxylon*), Cedrela (*Cedrela odorata*), and Bubinga (*Copaifera salikounda*).
Remove the invasive alien weed *Chromolaena odorata* from the last remaining degraded habitat and conduct enrichment planting exercises.			√	We involved university students, local school children, teachers, and foresters from the Forestry Commission of Ghana (FC), to remove *C. odorata* in approximately 15 ha, in areas including forest gaps, abandoned farms, logging roads, loading bays and skid trails. We replanted these areas with +5,000 native seedlings from our community tree nurseries.
Field map the spatial distribution of seedlings.			√	We mapped areas where enrichment planting was conducted. This is helping us locate and monitor the growth of seedlings.
Survey and monitor the Giant Squeaker Frog (*Arthroleptis krokosua*) and other co-occurring frogs.			√	We rediscovered 15 individuals of the giant squeaker frog; this is its highest abundance since the original discovery 13 years ago. For the first time also, we recorded gravid females, three individuals in total. In addition, we recorded three other globally threatened frog species: *Hylarana occidentalis* (Endangered), *Phrynobatrachus annulatus* (Endangered) and *Phrynobatrachus villiersi* (Vulnerable). Four were also listed Near-Threatened: *Amietophrynus*

				togoensis, *Leptopelis occidentalis*, *Phrynobatrachus alleni*, and *Phrynobatrachus liberiensis*. We also recorded ecological features and habitat requirements of the frog. Most of the specimens were recorded in open canopy forest that was still recovering from previous logging activities. Also, unfortunately, we found a number of abandoned gold mine pits in these areas.
Sustain education campaigns and stakeholders' involvement for the species' long-term protection.			√	We reached out to an estimated 5,000 local people and school children and another +40,000 via social networks and electronic newsletters. Some of our audiences benefitted from educational materials: flyers (500), project t-shirts (100), posters (200), and giant squeaker frog cards (1,000). We also organised an amphibian leadership programme and built the capacities of 30 undergraduate students in amphibian conservation and monitoring. We also sent press releases to hundreds of journalists around the world, getting published in including the leading Magazine Scientific American (http://blogs.scientificamerican.com/extinction-countdown/giant-squeaker-frog/), and many other news portals, e.g. http://www.ibtimes.co.uk/worlds-rarest-squeaker-frog-recovering-near-extinction-1513625.

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

We encountered several abandoned illegal mine pits that are a danger to frogs, other biodiversity and even humans. As these pits were within our restoration and monitoring areas, it placed the lives of the team and volunteers in danger especially during night surveys and the transportation of the seedlings. With the help of local guides we managed to find safer routes and places for our activities.

The giant squeaker frog has recently been downlisted by IUCN from 'Endangered' to 'Near-Threatened'. The reassessment was based in part on the finding of a single record at Mount Nimba, Guinea (IUCN 2015), which is now a voucher specimen. This is now makes it challenging for us to get the full support of government and operating timber companies in the species long-term conservation. However, the Sui Forest still remains the only place on earth known to harbour extant populations, which are small and fragmented. Thus, while we

highly recommend the species' re-assessment and upgrading to 'Critically Endangered', we understand there is urgent need to collect further biological and ecological data for the proper assessment.

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

Increase in the size of protected area of the giant squeaker frog: This project has resulted in the increase of the total protected area of the giant squeaker frog from 5 ha to 20 ha. Our previous Rufford Small Grant (13669-2) restored a 5 ha of the giant squeaker frog's degraded habitat. This current project has resulted in the restoration of another 15 ha.
Local community empowerment in the giant squeaker frog habitat protection: We involved and trained local people in the identification, selection and raising of the appropriate native tree species. We particularly encouraged farmers to freely collect seedlings from the nurseries for replanting in their 'farms' as a way of avoiding prosecution. This arrangement has seen an increase in the number of farmers willing to plant seedlings on their farms.
Alternative livelihood provision: The establishment of the community tree nurseries aside from constantly supplying seedlings for restoration activities has also directly provided jobs to at least three local people who were involved in illegal activities in the reserve. This initiative has been especially important in preventing these local persons from continuously conducting illegal activities within the reserve thereby reducing the amount of pressure that would have been exerted on the home of the giant squeaker frog. This positive outcome proves that when local people are given an alternative livelihood option, they are likely to reduce threats to species' habitats.

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

Local people, traditional leaders, school children and teachers formed an integral part of this project. They were involved in the nursery establishment, weed removal and seedling planting exercises. We also involved school children in art and essay writing competitions as well as drama and poetry recitals.

5. Are there any plans to continue this work?

We will continue to seek funds in support of this project. Although we have made several successes for the giant squeaker frog's conservation, there are still a number of challenges that remain. We are proposing short-term and long-term goals. For the short term goals, we propose the filling of the abandoned mine pits, which are ecological (death) traps. For the long-term, we propose the creation of the giant squeaker frog sanctuary. The sanctuary will encompass all known locations of the giant squeaker frog and adjacent habitats. We propose within the sanctuary, research stations open to scientists, a recreational centre for the public and an off-reserve closed to all forms of disturbance by virtue of its sensitivity. We have commenced meetings with the relevant state institution, Forestry Commission, to grant permission for this project. We will also scale up field work aimed at documenting further ecological data to inform IUCN's reassessment of the giant squeaker frog. We will also

collect important ecological data on the three co-occurring vulnerable frogs: *Hylarana occidentalis, Phrynobatrachus annulatus* and *P. villiersi*.

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

We have already sent electronic newsletters of RSG's support and about the plight of the giant squeaker frog to SAVE THE FROGS! 30,000+ mailing list subscribers (http://savethefrogs.com/newsletters/2013/2013-09-22-Ghana.html). To date we also have RSG's support and the project posted at our website (www.savethefrogs.com/ghana). We will continue to share our findings about ways to protect the giant squeaker frog at our website. We also blogged and made several Facebook posts, which have been shared and liked by several followers (http://www.savethefrogs.com/frogblog/save-the-frogs-news/save-the-frogs-ghana-executive-director-wins-rufford-foundation-awards-for-the-third-time/).

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

We conducted the project within its proposed 1-year period for including community tree nursery establishment, the weed removal, replanting exercises and awareness creation.

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
Daily Subsistence Allowance (DSA) for 5 team members X £10/day X 45days	2,250	2,250	0	No other changes made
DSA for a professional forester @ £50/day X 10 days	500	500	0	No other changes made
Stipend: 3 local Nursery attendants and caretakers of seedlings for one year @ 50/month X 12 months.	1,800	1,800	0	No other changes made
3 Water tanks @ £150/tank	600	450	150	We got much cheaper but of same tanks.
5 Water Cans @ £15/can	100	75	25	We got much cheaper but of same cans.

5,500 Black polybags @ £0.2/bag	600	1,100	500	It was initially planned that we were to raise a total of 3,000 seedlings. However, the number of tree species was increased as well as the quantity of seeds in each 5kg bag. Hence, we had to provide more polybags to accommodate for the extra seedlings. Our USA based partner, SAVE THE FROGS! contributed matching funds
30kg of planting seeds @ £40/5kg	160	240	800	We had seven more tree species to plant hence, we had to increase the quantity of seeds from 20kg to 30kg
4x4 vehicle hire including fuel @ £75/day for 20 trips	700	700	0	No other changes made
Pick up hire including fuel @ £100/day	0	100	100	The team needed to transport the nursery equipment and supplies but this was not initially included in the budget.
Accommodation for 3 non-resident team members @ £4/night for 45 nights	540	540	0	No other changes made
Meals and refreshments for volunteers during weed removal and tree planting @ £3/person X 20 daily labourers X 10 days	300	300	0	No other changes made
Refreshments and lunch @ 3/participant X 30 participants X 5 workshops	250	250	0	No other changes made
Printing of workshop materials @ £0.6/paper X 100	60	60	0	No other changes made
Venue hire @ £50/day X 5 workshops	250	0	250	We managed to secure a free venue, saving money for other costs.
200 Posters @ £1/poster	100	100	0	No other changes made
500 flyers @ £1/flyer	200	200	0	No other changes made
1,000Giant Squeaker Frog Cards @ £1/card	200	200	0	No other changes made
100 Project T-shirts @ £5/t-shirt	500	500	0	No other changes made
5 Radio programmes	305	305	0	No other changes made

@£30/programme				
GIS mapping and processing @ £300	300	300	0	No other changes made
Video documentary shooting and editing @ £250	250	250	0	No other changes made
TOTAL	**9,965**	**10,220**		

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

We consider the following to be the most important next steps: (1) cover up abandoned mine pits; (2) provide alternative livelihood to local farmers whose farms are part of the restored areas to prevent future encroachment; (3) sustain the educational programme to ensure villagers, politicians and logging companies understand the importance of protecting these frogs and three other co-occurring endangered frog species; and (4) petition IUCN to upgrade the conservation status of the giant squeaker frog.

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. We acknowledged Rufford's support at our website (this is still there to date); in all our presentations; blogs and Facebook. In addition, the Rufford Logo was featured on all materials (t-shirts, posters and flyers) produced in relation to the project.

11. Any other comments?

We would like to acknowledge RSGF for this support. We also acknowledge SAVE THE FROGS! USA for the additional support both in kind and cash. We thank all the Chiefs and assembly members of the various communities fringing the Sui River Forest Reserve and the Forestry Commission of Ghana. As well, we are grateful to the local volunteers who helped on this project.