

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	Habitat Restoration and Recovery for Ghana's Critically Endangered Giant Squeaker Frog (<i>Arthroleptis krokosua</i>)
RSG reference	13669-2
Reporting period	One year
Amount of grant	£6,000
Your email address	gilbert@savethefrogs.com , adumgilbert@gmail.com
Date of this report	August, 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
Control the non-native invasive weed (<i>Chromolaena odorata</i>) in critical habitats of the giant squeaker frog (<i>Arthroleptis krokosua</i>) in the Sui River Forest Reserve.		√		With the involvement of university students, local school children, teachers and community members, we removed the non-native invasive weed <i>C. odorata</i> from 4 ha area of the giant squeaker frog. <i>C. odorata</i> forms dense thickets, impeding the frogs' movement; it also releases chemicals into the soil that prevent the growth of native plants. The weed also reduces the leaf litter required by the frog for successful breeding, predator escape and prevention from desiccation. Thus, clearing <i>C. odorata</i> was necessary to provide habitat conditions needed by the frog to enable it recover rapidly from the brink of extinction.
Replant degraded and fragmented areas of giant squeaker frog with native tree species.		√		We involved university students, local school children, teachers, and foresters from the Forestry Commission of Ghana (FC), to plant 2,000 native tree seedlings (http://www.savethefrogs.com/frogblog/save-the-frogs-news/restoration-of-the-giant-squeaker-frogs-habitat-gets-underway/). The native seedlings planted were 500 each of: Limba (<i>Terminalia superba</i>) African mahogany (<i>Khaya anthotheca</i>) Kapok (<i>Ceiba pentandra</i>) and <i>Gedu Nohor</i> (<i>Entandophragma angolense</i>) We conducted enrichment planting of 500 seedlings/ha covering 4 ha.
Involve stakeholders in the conservation of giant squeaker frog.			√	We organised stakeholders' workshops with the personnel from FC, logging companies, local leaders from fringing communities and other relevant stakeholders. We identified priority conservation areas of the giant squeaker frog that falls within logging concession and illegal farms at SRFR. All stakeholders unanimously agreed that these priority areas are to be set aside from logging and any habitat destruction activities. We also managed to persuade illegal

				farmers and got farms in certain critical habitat areas destroyed. A vibrant and well-coordinated “Giant Squeaker Frog Protection Committee” was also established, with members charged with the responsibility of caring for planted seedlings and monitoring illegal activities.
Build local capacity and increase awareness among stakeholders for the conservation of giant squeaker frog.			√	<p>We organised seminars for university students at the University College of Agriculture and Environmental Studies (UCAES), University for Development Studies (UDS) and Kwame Nkrumah University of Science and Technology (KNUST). Through PowerPoint presentations, group discussions, demonstrations and video documentaries, we trained participants in conservation strategies for endangered frogs especially the giant squeaker frog. Training focused on areas including; how to establish and run a SAVE THE FROGS! Chapter, and how to organise Annual Save The Frogs Day (the world’s largest day of amphibian conservation action), invasive species removal and replanting. We also made good use of videos including “Life in Cold Blood--Land Invaders” by Sir David Attenborough, a well acclaimed naturalist and BBC broadcaster. With these videos we introduced participants to the adaptability and survival instincts of different amphibian species in different environments.</p> <p>We also taught them practical techniques used in surveying and identifying amphibian species including frog calls and the correct procedure in handling captured species. They were also trained in GPS navigation and field data recording, with focus on characterising infestation of our target non-native weed; <i>C. odorata</i> and other invasive weeds. One student Mr. Sulemana Bawa Gbewaa was specially sponsored and assisted to collect data for his BSc. thesis project titled: <i>The Impact of Invasive Weeds on Amphibian Assemblage Structure Dynamics in the Sui River Forest Reserve</i>. In June 2014 he graduated from the Kwame Nkrumah University of Science and Technology, Kumasi.</p> <p>We successfully organised numerous educational programmes that reached thousands of audiences via students’ seminars,</p>

			<p>social media postings (facebook, blogs and YouTube); radio and TV broadcasts (http://www.savethefrogs.com/frogblog/businesses-for-frogs/save-the-frogs-ghana-to-talk-live-on-tv-about-the-plight-of-amphibians/).</p> <p>We also made outreaches to three nearby schools; Sefwi Wiawso Senior High School, Yawkrom Basic Schools (Primary and Junior High). We believe these local school children are the future leaders of the giant squeaker frog's environmental movement. Thus, we educated approximately 3,000 of these school children and their teachers through presentations on the plight of Ghana's amphibians especially the giant squeaker frog. We established two Junior chapters of SAVE THE FROGS! Ghana at near-by schools. We freely donated educational materials (project t-shirts, posters and stickers) to students and the general public.</p>
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

Due to the inaccessible nature of the roads, travel and transportation of seedlings proved very difficult. During heavy downpours especially the roads became impassable leaving us with no option but to return to nearby towns to lodge and wait for favourable weather time. In some instances, we also needed to change vehicles or employ the services of more experienced drivers to deal with such situations. We also encountered confrontations with illegal loggers when we caught them in the act and tried to get them arrested. Thankfully, we got support from well-meaning local people in the arrest of culprits who were handed over to the traditional leaders and resident foresters.

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

Increased Stakeholder Involvement: This project established a community watch group dubbed "Giant Squeaker Frog Protection Committee", charged with reporting on the progress of the planted seedlings and any suspicious activities to project leaders and personnel of the Forestry Commission Ghana (FC). We also established two junior chapters of SAVE THE FROGS! Ghana to ensure that the youth are continuously taught to appreciate amphibians and nature on the whole. This is an important aspect of the project because if these future leaders are environmentally conscious, they will make decisions that will be favourable to environmental conservation.

Increased Publicity: At both the local and international fronts our project about saving Ghana's Critically Endangered giant squeaker frog has received the widest ever publicity of

all our conservation activities to date. We sent electronic news 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>). We sent press releases to hundreds of journalists around the world that got reported by both top local news (<http://www.modernghana.com/news/498175/1/one-of-worlds-rarest-frogs-found-in-ghana.html>; <http://www.myjoyonline.com/news/2013/october-21st/rare-endangered-frog-found-in-ghana.php>) and international news including Scientific American (<http://blogs.scientificamerican.com/extinction-countdown/2013/10/25/frog-ghana-devil-weed/>). We also published an article in FrogLog, IUCN Amphibian Specialist Group newsletter, where it was featured in the headlines (<http://www.amphibians.org/froglog/fl111/>; <http://www.savethefrogs.com/countries/ghana/images/2014-07-28-FrogLog-STF-Ghana-Squeaker.pdf>). We made several Facebook posts (e.g. https://www.facebook.com/adumgilbert/posts/780060368688677?stream_ref=5); and blogs (<http://www.savethefrogs.com/frogblog/save-the-frogs-news/restoration-of-the-giant-squeaker-frogs-habitat-gets-underway/>; <http://www.savethefrogs.com/frogblog/save-the-frogs-news/call-for-volunteers-to-restore-habitat-of-the-giant-squeaker-frog/>; <http://www.savethefrogs.com/frogblog/save-the-frogs-news/save-the-frogs-ghana-executive-director-wins-a-second-rufford-grant-award/>). We also educated the general public on radio and TV shows (<http://www.savethefrogs.com/frogblog/businesses-for-frogs/save-the-frogs-ghana-to-talk-live-on-tv-about-the-plight-of-amphibians/>), where we reached at least more than a million Ghanaians with our amphibian conservation message. In addition, we posted related videos on YouTube (e.g. <https://www.youtube.com/watch?v=35lxtlI9Jk>; <https://www.youtube.com/watch?v=S7nOlhiSafE&feature=youtu.be>; <https://www.youtube.com/watch?v=l8qgRMCg5cE>). We also made several presentations including an international talk at University of Cambridge UK, at its Student Conference on Conservation Science, about how the invasive non-alien weed *C. odorata* threatens the survival of the giant squeaker frog along with other Ghanaian amphibians (<http://www.sccs-cam.org/Pdfs/2014/Book%20of%20Abstracts%202014-revised.pdf>). Finally our project was also featured in a top national newspaper The Mirror (Date of publication: Friday, August 15, 2014).

Future Direction: Through multi-stakeholder meetings and expert consultation (including during a presentation at the University of Cambridge) we identified on this project these future necessary steps: (1) further involve local villagers to remove the non-native invasive weed and restore the species' two other ranges; (2) establish community tree nurseries to raise seedlings of four native species and plant the seedlings in the squeaker frog's habitat; (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.

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

Local people, school children and their teachers and FC formed an integral part of this project. They were involved in the weed removal and seedling planting exercises and now, some of them are members of “Giant Squeaker Frog Protection Committee.” These committee members who act as stewards will report to law enforcing agencies including FC of any suspicious activities that could lead to the further degradation of the reserve.

5. Are there any plans to continue this work?

The Ghana giant squeaker frog at the Sui River Forest Reserve is still threatened by the invasive weed *C. odorata* together with other threats. We have only successfully restored one of the three ranges of the giant squeaker frog habitat infested with the weed. We plan to secure more funds to restore the remaining areas in the near future. We will use these funds to among other things establish community tree nurseries to raise seedlings of native tree species. It is both expensive to buy seedlings and to transport to these remote places. Establishing community nurseries to be managed by local people with support from FC will be the best initiative as will also engage local people and build stronger collaborations to ensure the sustainability of the project. We have created a special webpage detailing the future plans SAVE THE FROGS! Ghana has for the giant squeaker frog at (<http://savethefrogs.com/am-phemians/arthroleptis-krokusua.html>).

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

SAVE THE FROGS! Ghana is a well recognised organisation both on the national and international scenes with over 30,000 followers. We have used this opportunity to our advantage and shared our project about saving Ghana’s Critically Endangered giant squeaker frog. We 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>). 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-a-second-rufford-grant-award/>). To date we also have RSG’s support and the project posted at our website (<http://www.savethefrogs.com/frogblog/save-the-frogs-news/save-the-frogs-ghana-executive-director-wins-a-second-rufford-grant-award/>).

However, we will continue to share our findings about ways to protect the giant squeaker frog at our website www.savethefrogs.com/ghana and specifically at <http://savethefrogs.com/amphibians/arthroleptis-krokusua.html>.

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

We proposed a 1-year period for the project including the weed removal, replanting exercise and awareness creation. We only needed an additional 2 months for successful post-project monitoring and evaluation as well as data processing and reporting.

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 Rent	1,064	1,164	100	Seedlings were procured and transported from a different region because native seedlings were not within our project region.
Daily Subsistence Allowance (DSA) for 5-team members	840	840	0	Target met because there was no upward adjustment of team members DSA
Teaching guides and training materials	71	80	9	Inflation in the cost of materials resulted in the deficit
Habitat mapping	150	150	0	Although charges in this area were higher than the initial budget, the GIS expert being an acquaintance of STF! Ghana contributed to the project by absorbing the rest of the cost.
Procured 2,000 native seedlings	1,400	1,500	100	Inflation in the cost of materials resulted in the deficit
Refreshments (cookies and mineral drinks) and lunch for 150 volunteers for habitat restoration and workshop attendants	1,300	1,300	0	We relied on volunteers instead of hired labour to remove <i>C. odorata</i> from the Squeaker Frog's habitat and replant those areas with native seedlings to: <ul style="list-style-type: none"> • reduce the cost of hiring the services of labourers which would cost more than feeding the volunteers who also double as project progress reporters • teach them in the effective control of invasive weeds especially <i>C. odorata</i> and enrichment planting technique at the SRFR to sustain the

				project
Equipment and materials	100	0	100	While we hired some of the items needed we thought it wise to purchase head pans and axes.
Conservation Education-materials (150 species T-shirts, 50 posters, 200 stickers)	800	1,000	200	Inflation in the cost of materials and services resulted in the deficit
Projector and Power generator hire	100	50	50	We had three video shows instead of the proposed five.
Radio Broadcasts	125	120	5	We initially budgeted the cost of each radio programme at £25. However, we had to pay £30/programme so we reduced the previously agreed number of appearance from 5 to 4.
Ten best frog art/essay competition awards	50	0	50	We gave away awards to six winners in the categories of art and essay competitions.
Accommodation for four non-resident team members for 5 days.	0	160	160	This was not original budgeted for; SAVE THE FROGS! Ghana took care these charges.
TOTAL	6,000	6,364	364	SAVE THE FROGS! Ghana absorbed the remaining deficit of £259

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

We consider the following to be the most important next steps: (1) further involve local villagers to remove the non-native invasive weed and restore the species' two other ranges; (2) establish community tree nurseries to raise seedlings of four native species and plant the seedlings in the squeaker frog's habitat; (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.

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 both locally and internationally (at University of Cambridge); blogs and Facebook; and publications (e.g. FrogLog, IUCN Amphibian Specialist Group Newsletter). 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 both SAVE THE FROGS! (USA) and SAVE THE FROGS! Ghana for 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 in the restoration project.