

The Rufford Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford 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	Paul Bartlett
Project title	Collaborative action to save wild populations of <i>Betula megrelica</i> and its habitat - an endangered, alpine tree in the western Caucasus
RSG reference	21395-B
Reporting period	17/3/17 to 1/5/18
Amount of grant	£10,000
Your email address	paul.bartlett@stonelanegardens.com
Date of this report	24/05/18

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
Educating the local population - Pilot Schools programme				We set up a pilot education programme with one of the area's main schools in Chkhorotsku. Since September 2016 we have funded the provision of an 'Eco-Club' at the school. An employee of the Georgian Institute of Botany runs this class every week, educating the students about the benefits of biodiversity, their own rare local flora, and the dangers being caused by human mis-management and destruction of their forests and mountain ecosystems. We have successfully linked this school with a school in the UK near Stone Lane Gardens, which has generated further interest about our project. There are two goals. Firstly we are educating the local students about environmental protection and management on a very local and focussed level. Secondly, the education of these students will filter out to the wider community. This should help our future efforts to protect <i>Betula megrelica</i> and its habitat, particularly as we move towards creating a protected area.
Lobbying for Protected Area status				We had a very productive meeting with the Georgian Agency for Protected Areas after our 2017 fieldwork. The director of this agency was very enthusiastic about the work we have done and asked us to formally put forward a written proposal. However, since then the department has been re-allocated to a different ministry, with several

				<p>staff changes. I have drafted a formal document, requesting that the Georgian Government create a protected area. This has been passed to our Georgian partners at the Institute of Botany in Tbilisi for them to complete and translate. It will then be presented to the Agency for Protected Areas.</p>
<p>Maintaining and enhancing the ex-situ conservation collections</p>				<p>We visited and inspected the Georgian ex-situ conservation collection held at Bakuriani Alpine Botanic Garden. We advised the staff how to maintain and care for the young seedlings as well as discussing future placement of the trees in their garden and publicising the collection.</p> <p>The ex situ collection at Stone Lane Gardens, UK is very comprehensive, covering many provenances from the three mountains. The young plants are growing well. Seed collected during the 2017 fieldwork has just been sown and has successfully germinated. We have distributed young plants to several botanic gardens and arboreta.</p>
<p>Regular in-situ monitoring of wild populations</p>				<p>Monitoring was carried out successfully in 2017. This will continue in 2018.</p>
<p>Advancing our knowledge by extending the Field work</p>				<p>Our fieldwork in September 2017 was very thorough and covered a large area. We studied all the planned areas despite difficult terrain. We gained a great deal of knowledge of the geography, access and land use of the Askhi massif. We are currently negotiating a contract to analyse rock samples collected in the field (the first laboratory we approached were unable to complete the work).</p>

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

Communication with our Georgian colleagues is sometimes difficult, especially with those whose English is not as fluent. In these situations, we always use one of the more senior members of the Institute of Botany to help with the translation. This has been very effective.

Setting up digital communication via Skype video link between the Georgian and UK schools has been plagued with technical difficulties, mainly at the Georgian end. We are looking at improving their equipment.

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

Thorough surveying of the Askhi massif, which confirmed that *Betula megrelica* only exists in the north-western corner of the massif.

Setting up the 'Eco-Club' at Chkorotskhu School, gaining the support of the school and funding the weekly lessons there. This included successfully linking the schools in UK and Georgia. Both schools are now growing seedlings of *Betula megrelica*.

Establishing the ex-situ collections, particularly the Bakuriani collection. This is the first time that seedlings of *Betula megrelica* have been raised within a Georgian botanic garden.

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

Our project enabled three Georgian botanists and three local Georgian guides to see the rare *Betula megrelica* in several locations in the wild and study its morphology. The botanists are employed by the Institute of Botany, Ilia State University, Tbilisi. By educating one key botanist in the field, he is now able to pass his knowledge on to the students he teaches, both in Tbilisi and Chkhorotsku. Our 'Eco-Club' programme at Chkhorotsku School is educating their students about the benefits of biodiversity, their own rare local flora, and the dangers being caused by human mis-management and destruction of their forests and mountain eco-systems.

5. Are there any plans to continue this work?

Yes. The project is active. It will take several years for the Georgians to create the infrastructure needed to protect the unique habitat of *Betula megrelica*. During this time they will need financial and technical support, along with the enthusiasm of dedicated partners such as myself. We still have a great deal of research ahead. We need to solve the key question of how *Betula megrelica* manages to out-compete other species in its niche habitat. We would also like to promote and widen the 'Eco-Club' school project, which could set a benchmark for other conservation projects.

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

Our UK partner Botanic Gardens Conservation International manages many conservation projects around the globe. They have publicised this project and will be able to use elements of it within other projects. BGCI are also promoting the project through their 'Global Trees' campaign.

Interpretation panels have been erected at Stone Lane Gardens, UK to educate visitors about the project and raise awareness of the need for protection of rare habitats and management of human activities. The Institute of Botany has been passed our design and has been contracted to create similar panels for the Georgian Botanic Gardens.

Several newspapers in Devon printed articles in 2017 describing the project and my involvement in it. The project was discussed during a BBC Devon radio interview in 2017 and I regularly give talks about it to groups within Devon.

We have shared seedlings of *Betula megrelica* with other European botanic gardens and arboreta.

I will be writing articles for publication in horticultural/ arboriculture magazines this year.

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

The grant was used between April 2017 and April 2018, although some of the funding covers project costs through to the end of 2018. This is much as anticipated.

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
travel to Georgia	784	450	334	Cheaper flights than anticipated.
fieldwork - food and accommodation	1210	1300	-90	Slightly higher costs than anticipated.
fieldwork - truck hire/ travel/fuel	1125	950	175	Less travelling in truck than anticipated.
fieldwork - staff and guides subsistence costs	2550	1600	950	Less guides required for fieldwork than anticipated.
ex-situ conservation	750	600	150	Costs slightly lower than

collection - Bakuriani				anticipated.
ex-situ conservation collection interpretation – Stone Lane Gardens	550	700	-150	Slightly higher costs than anticipated.
in-situ monitoring of wild populations	1200	2000	-800	Extra monitoring activities needed.
delivering evidence for protected area status	400	800	-400	This took longer than anticipated.
Schools educational programme	1440	1600	-160	Slightly higher costs than anticipated.
	10009	10000	9	

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

Continuing to fund the 'Eco-Club' school programme. This is real grass-roots funding for the education of the local population.

Continuing the research into the molecular functioning of *Betula megrelica*, using the comprehensive ex-situ collections at Stone Lane Gardens.

Applying more pressure to the Georgian Government to create a protected area.

Continuing the technical support for the ex-situ collection at Bakuriani.

10. Did you use The Rufford Foundation 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 has been used in newsletters and on interpretation materials. All our press releases have mentioned the support of Rufford Foundation. You are featured on our website.

11. Please provide a full list of all the members of your team and briefly what was their role in the project.

Joachim Gratzfeld

Director of Regional Programmes, Botanic Gardens Conservation International (BGCI) - a unique global charity working to mobilise botanic gardens and engage partners in securing plant diversity for the well-being of people and the planet. Field biologist and plant ecologist specialising in the interface between conservation and human development. Has managed BGCI global conservation programmes since 2006.

Shalva Sikharulidze

Director Institute of Botany (IoB), Ilia State University, Tbilisi - IoB Team Coordinator with many contacts in Georgian government ministries.

Dr. David Kikodze

Deputy Director Institute of Botany (IoB), Ilia State University, Tbilisi - IoB Team Coordinator with good botanical knowledge, excellent English language skills, and much experience at coordinating team activities.

Arsena Bakhia

Biology teacher in Tbilisi. Has family connections in Samegrelo. Regularly takes part in field activities with Institute of Botany. Young, fit and enthusiastic, with good interpersonal skills. He has successfully carried out our Eco-Club activities in Chkorotskhu School and is keen to continue this project.

Roman Tolurdava

Professional photographer in Samegrelo, Georgia. Was a local council officer and has many contacts in Samegrelo.

Alison Couch

Working as freelance education officer and Forest School facilitator for Stone Lane Gardens. Alison has been involved with the UK education element of the project since 2015 and will continue in that role, helping with production of publicity and educational materials for the garden.

12. Any other comments?

Our work in Georgia has benefited greatly from the support of Rufford Foundation. I hope you feel our project is achieving some worthwhile objectives and I expect we will be applying for further funding in due course. As we are all striving to ultimately pass the leadership of this project across to our Georgian partners, it is likely that any future application will come from them. This is something I would like to discuss with The Rufford Foundation soon.

