

## The Rufford Foundation Final Report

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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](mailto:jane@rufford.org).



Thank you for your help.

**Josh Cole, Grants Director**

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Grant Recipient Details	
Your name	Natia Barateli
Project title	Conservation of an endemic species <i>Darevskia dryada</i> in Charnali Gorge area
RSG reference	24902-1
Reporting period	May, 2019
Amount of grant	£5,000
Your email address	Natia.barateli.1@iliauni.edu.ge
Date of this report	24.05.2019

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
<p>Define the distributional margins and microhabitat preferences of <i>D. dryada</i> within the Charnali gorge area</p>				<p>We surveyed <i>D. dryada</i> habitat area during 21 days.            First field work (7 days) we spent in original study area (Fig. 1) (territory designated during project writing). The study area was divided into three transects and we surveyed each transect three times a day as planned, but unfortunately we only found two individuals of <i>D. dryada</i>.</p>  <p>For the next field work we consulted Georgian naturalists who advised us to move the study location higher in the Charnali gorge (currently restricted Georgian-Turkish border area – Khobcho). In the new location we surveyed the study area (Fig. 2) only once a day (approximately for 3 hours) as long as it is a restricted area and we were provided the access only limited amount of time with the presence of the border security member.</p> 

In the new study area we captured totally 87 different individuals.




We had four volunteers from Tbilisi with us (two school students and two bachelor students from Ilia State University) (Fig. 3), which were trained in field work (lizard capturing, recording the coordinates, habitat description, etc.).

During the observations we recorded the coordinates to draw the distributional margins and described species habitat.



The preferred habitat was (Fig. 4): moist rocky shores of the river covered in grass and moss. Dominant plant species were black alder (*Alnus barbata*), cherry laurel (*Laurocerasus officinalis*), common ash (*Fraxinus excelsior*), common ivy (*Hedera helix*), common polypody (*Polypodium vulgare*), blackberry (*Rubus* sp.), pontic rhododendron (*Rhododendron ponticum*) (Fig.5).



				 <p>In the designated study area (across Charnali river) other Lacertidae species found were: <i>Darevskia rudis</i>, <i>Darevskia derjugini</i>, <i>Lacerta agilis</i>. We found couple of smooth snakes (<i>Coronella austriaca</i>) and Caucasian slow worm (<i>Anguis colchica</i>) (Fig. 6).</p>  
Evaluate population size				<p>In first week, on our designated study area we collected only two individuals, thus we didn't include this results in our final estimations.</p> <p>In the second week on our 'new' study area we collected 48 different lizard individuals, which we photographed on dorsal, lateral and anal areas. On the third week we collected the same amount (48) of lizards (and photographed them) and</p>



				<p>compared them to the second week photographs (the exact same amount was captured on the third field trip in order to compare it with the previous field trip results). Nine individuals were recaptured. By calculating the population size, we assume there are 256 +_48 individuals in study area. For the calculations, first we estimated the percentage of the recaptured individuals from the whole amount (48). Then we calculated the whole approximate population size of the population on our study area.</p>
Evaluate the threats for the population				<p>Per our observation, the main threat for <i>D. dryada</i> population in Charnali gorge area is habitat destruction. Our observation results showed that, the original area described as the habitat for <i>D. dryada</i> which is currently occupied by multiple restaurant constructions had a very little population (we found only two individuals during 7-day field work). In contrast the number of individuals captured in Khobcho was much larger (87), probably due to the lack of human disturbance in the area (Khobcho area is restricted by border police).</p>

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

There were no unforeseen difficulties except that on the original study area only two individuals were caught and the population appeared to be much denser in the restricted (Khobcho) Georgian-Turkish border area. Only difficulty in this case was that obtaining the permit for entering this restricted border area was problematic. After obtaining permits through the help from our university, we were allowed on the area only with presence of the border police representative and we were limited in ~3 hours per day. Even though we encountered such difficulties, we still managed to collect 87 individuals.

Another difficulty (though it was foreseen) was catching the individuals physically, because the habitat area consists of large slippery rock pieces sometimes in the middle of the river, which are difficult to approach.

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

First outcome is the evaluated population size (256+\_48 individuals) of *D. dryada* in our study area.

Second outcome is the exact mapped population of *D. dryada* in Charnali Gorge area.

The third outcome is the evaluated threats that affect *D. dryada* population in Charnali Gorge area. The main threat as observed by us is intensive construction and habitat destruction on *D. dryada* habitat area.

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

The locals have been actively involved in the project. We distributed fliers, stickers and posters (with *Darevskia dryada* logo) for students and stakeholders.

During our first field work we distributed flyers and stickers to the local restaurants and asked them to share it with their clients as well, in order to introduce unique *D. dryada* species to the larger community.

After our first visit to the Charnali gorge area, we visited the local school to distribute posters, flyers and stickers (Fig. 7). The interest rate from the school pupil and administration was very high, thus we decided to give a final presentation talk at the school itself.



Fig 7.

On April 5 2019 the presentation was held at the school, which was attended by ~150 locals.

Our presentation at Charnali local school was attended by the representative of Charnali region municipality. After discussing the issue with him, we found out that the local restaurants in the Charnali area do not have the legal functioning permit any more (they were constructed with lease contracts, which are already outdated). The restaurant constructions have been ongoing for years and still continues (Fig. 8).



Fig. 8

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

Our original study area is an important habitat place not only for *D. dryada*, but to other Caucasian endemic species: *Mertensiella caucasica* and *Vipera kaznakovi*. As stated above, we communicated with the representative from Charnali region municipality, who informed us about the expiring leases of the existing restaurants. He discussed the possibilities of banning the future construction, and was interested in our idea to suggest referring Charnali gorge area to protected areas. This will be beneficial for the locals in the long run, for example by developing the eco-touristic infrastructure, recreational business opportunities, etc.

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

We already spread the information and shared the results of our project at science picnic (annual educational outdoor event, which hosts up to 100 institutions including universities, schools and local organisations and thousands of attendees). Also, the info and results of our project have been filmed by local television Adjaratv

(The TV has deleted our interview from their official webpage, We asked the journalist to send as a video, as soon as we will have the link, we will send it to you) We also shared information about *D. dryada* and its importance for Georgian biodiversity at the local school in Tbilisi.

Our results will be shared on Ilia State University webpage. We also plan to present the results at Ilia State University by the end of June.

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

Grant provided by The Rufford Small Grants Foundation was used in period of May 2018 to the end of April 2019. The usage of grant period coincided with the actual length.

**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 *(exchange rate)
Driver + car rent	1000	1000		
Petrol	400	400		
Macro lens	80	51	-29	(3.2506) The lens which we needed was found to be cheaper than during project writing.
GPS device	300	177	-123	(3.2506) The GPS device with its memory card which we needed was found to be cheaper than during project writing.
Buffet	200	203	+3	(3.5391)
Flyers + stickers + posters	290	279	-11	(3.3890)
Accommodation	1260	1192	-68	(3.389, 3.2209, 3.2842, 3.51) We were able to find the accommodation cheaper than we expected.



Per diem	924	933	+9	(3.389, 3.2209, 3.2842, 3.51)
Accommodation for volunteers	315	289	-26	(3.389)
Per diem for volunteers	231	330	+99	(3.389) As we had funds left from GPS and Macro lens available, because of the large interest from students, we took one more volunteer to the field works, which raised the amount of the per diem.
Transportation for the presentation in Charnali (including per diem)		122	+122	(3.51) We didn't plan to give a presentation in Charnali, but as we already had correspondence with Rufford contact person, we decided that giving presentation to the locals would be more beneficial for the project. Thus we used remaining funds from other fields to finance the train to and from Adjara and the car transportation in Charnali area.
<b>TOTAL</b>	<b>5000</b>	<b>4976</b>	<b>-24</b>	

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

The next step is cooperation with local protected area agency and Charnali area municipality about changing the status of Charnali gorge area to protected area, which will presumably benefit the locals by developing ecotourism in the area.

**10. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did The Rufford Foundation receive any publicity during the course of your work?**

We used the Rufford Foundation logo in distributed fliers and posters as well as during the filming for the local television, Rufford-organised conference (2-4 August,

2018, Kazbegi, Georgia), Iliani Science Picnic (29.09.2018, Tbilisi, Georgia), presentation in Charnali public school and Tbilisi local school.

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

Team consisted of three people.

**Natia Barateli** - the team leader, She managed the project throughout its duration; dealt with purchases, planned field works, analyzed data and prepared the update and the final report; Prepared presentation for Charnali Public School and Tbilisi local school;

**Tamar Beridze** - was involved in field work, data analysis and she co-presented the presentation in Charnali Gorge area and was actively involved in planning field works and distributing Flyers and Stickers through pupils and Stakeholders.

**Nikoloz Dvali** - was actively involved in field works, data analysis and preparing presentation for Charnali Public school.

**12. Any other comments?**

We would like to thank The Rufford Foundation for financial support.