

## Final Evaluation Report

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Your Details	
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Project Title	Investigating the potential presence of Balkan lynx in Bosnia and Herzegovina
Application ID	27173-2
Grant Amount	£4998
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1. 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
Possible confirmation of presence of lynx				<p>The presence of lynx was determined on the basis of traces found at several locations, as well as on the basis of the testimonies of the respondents obtained by the interviews. The presence of lynx has been confirmed both in the Sutjeska National Park (from 2017 until today) and in the border area of Montenegro (2019). A total of 11 findings were collected.</p> <p>1. Fieldwork – three findings (in Bosnia and Herzegovina – B&amp;H and Montenegro - MNG): Lynx footprints in the area of Maglić Mountain (C2 category*) (October 11 (B&amp;H) and 18 (MNG) 2019 and August 2 2020 (B&amp;H/MNG)).</p> <p>2. Interviews – seven findings:</p> <p>a) In the area of Zelengora Mountain: three findings of the C3 category (one sighting of an animal, one sighting of a footprint and one sighting of faeces) and one finding of a C2 category (photograph of a lynx footprint).</p> <p>b) In the area of Volujak Mountain: two findings of the C3 category (animal sighting and sighting of a footprint).</p> <p>c) In the area of Maglić Mountain: one finding of C2 category (photo of lynx footprint).</p> <p>3. Hair samples – one collection: Zelengora Mountain (this finding has not yet been laboratory confirmed - possible C1 category).</p>
Determine the size of the territory				In the area of the Sutjeska National Park, the size of the lynx territory was determined to be approximately 89 km <sup>2</sup> .
Discovering of its abundance in research area				We assume that it is one or two individuals. If there are two individuals, one inhabits the area of the mountain

				Zelengora (B&H), and the other the area of the mountains Maglić (B&H and MNG) and Volujak (B&H and MNG).
Collection of lynx hair samples for genetic analysis				One sample of the lynx hairs collected in the area of mountain Zelengora (B&H) (possible C1 category).
Establish cooperation and arrange monitoring in Montenegro				Cooperation has been established with Aleksandar Perović from NGO Center for Protection and Research of Montenegro.

\* - Classification according to SCALP criteria - field records according to their reliability as inferred from whether they were validated or not (Molinari-Jobin, A. et al., 2012. Monitoring in the presence of species misidentification: the case of the Eurasian lynx in the Alps. *Animal Cons.* 15, 266–273. <https://doi.org/10.1111/j.1469-1795.2011.00511.x>)

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

During the project, one camera was stolen, and one was destroyed. With the help of employees in the national park, the persons were identified but the camera was not returned. The case was reported to the local police.

Lack of equipment for research in snow conditions (the problem was not solved during the project, but I expect that it will be solved in the coming period).

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

a) Confirmation of the presence of lynx (in Sutjeska National Park (B&H) and Montenegro (MNG)) - These results are very significant because it shows the expansion of the lynx population and the presence of lynx in Montenegro (even if occasionally).

Until now, findings on the presence of lynx in MNG have been unconfirmed information through interviews (near border MNG – B&H) (Melovski et al., 2018) and trophy of the killed lynx (from the border MNG - Kosovo). Therefore, our finding is the first finding of a living lynx in Montenegro!

Also, through interviews, it was established that the lynx has been present in the area near to the Sutjeska National Park since 2014. Therefore, the closest registered lynx was in MNG (see above Melovski et al., 2018), at a distance of about 35 km (it is a Balkan lynx), while the closest distance from the registered Carpathian lynx in B&H was about 82 km.

Based on this, there is a high probability that the lynx registered in the vicinity and in the Sutjeska National Park, as well as in the border area of the MNG belongs to the subpopulation of critically endangered Balkan lynx (*Lynx lynx balcanicus*).

b) Collection of lynx hair samples for genetic analysis - The sample was not sent for determination, because B&H until recently did not have an established CITES office. As the CITES B&H office has just been established, we expect to obtain the necessary approval soon, and for the sample to be sent to Slovenia for identification as soon as possible.

c) Determine the size of the territory - The size of the territory of the lynx has been established in approximately 89 km<sup>2</sup> of the territory of the Sutjeska National Park, but also in the narrower area (28 km<sup>2</sup>). It should be noted that in the narrower area, the lynx was observed from 2014 to 2018, and that this research did not re-establish its presence. We assume that this is the same individual that today inhabits the area of the mountains Zelengora, Maglić and Volujak.

We still do not know how much area it occupies on the territory of Montenegro. That is still being worked on.

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

By interviewing the local population, they directly participated in the realisation of the project. An initiative has been launched to help the local population in the form of protection of their livestock (shepherd dogs and electric fences).

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

The plan is to continue the research. The interest of state institutions is great but there is a lack of money at the state level. It is unlikely that they will be able to help financially.

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

Through active participation and cooperation with LCIE and CSG, these organisations have already been informed about our results. In collaboration with a group of scientists from all over Europe, some of the results of this project have been implemented in a scientific paper that will be published in Cat News these days.

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

The timeframe of the project duration was monitored according to the proposal of project activities until the declaration of the pandemic threat caused by the Covid 19 virus. Therefore, the duration of the project was extended from June to August 2020.

8. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Velcro tapes	98	98		
Wooden sticks	60	62	+2	
Batteries	60	79	+19	
Photo traps	1180	1178	-2	
Fuel	1510	1692	+182	The negative difference was due to more frequent field work from June to August 2020, which is a consequence of the inability to work from March to May 2020 caused by the corona virus pandemic.
Food for three persons	1000	946	-54	
Accommodations	1090	1005	-85	
<b>Total</b>	<b>4998</b>	<b>5060</b>	<b>+62</b>	The funds were raised from the account of the Ecology and Research Association

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

Establish better quality winter monitoring in the area of NP Sutjeska, but also in border area of Montenegro. Continue to set up photo traps as well as hair traps in the area (it is highly desirable to obtain a photograph of the individual using photo traps). Intensive collection of hair samples and their genetic analysis. Very soon, start with non-invasive capture of the lynx and the placement of a GPS collar on it, in order to get to know its territory and life habits in B&H and Montenegro.

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

We did not have the opportunity to use the Rufford Foundation logo, but the name of Rufford Foundation was used in a paper which will be published in the Cat News journal (published by the CSG-Cat Specialist Group (IUCN SSC)).

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

**Igor Trbojević** (assistant prof) - knowledge of the ecology of large carnivores had a great influence on finding traces of lynx.

**Ivan Napotnik** - great help in the field as a project assistant, especially in setting and checking traps (photo and hair traps).

12. Any other comments