

# 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	María Flavia Caruso
Project title	Availability and connectivity of habitat for Jaguar ( <i>Panthera onca</i> ) between Baritú National Park (Argentina) and Tariquía National Reserve (Bolivia).
RSG reference	25980-B
Reporting period	February 2019– February 2020
Amount of grant	£ 10,000
Your email address	<a href="mailto:fcarusolombardi@gmail.com">fcarusolombardi@gmail.com</a>
Date of this report	February 17, 2020

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
Determine the presence of the jaguar and its main preys along the Baritú-Tariquía Ecological Corridor.				We detected the presence of jaguar and its main prey in different areas of the biological corridor, by means of camera traps.
Define the lowest cost functional connectivity for the jaguar between the two Pas.				
Use the information the presence of the jaguar and its preys, to validate the potential lower-cost paths between these Pas.				
Define a binational corridor that allows functional connectivity between both PAs for jaguar conservation, identifying critical points with threats and how to protect them.				
Train PAs staff from Argentina and Bolivia on topics related to the fieldwork methodology proposed in this project and return of research results obtained.				

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

During November and December 2019, after the resignation of the President of the Plurinational State of Bolivia, Evo Morales left the country in a sort of power gap that led to a wave of protests by the President's supporters.

There were reports of destruction and looting, as well as marches and blockades by activists on all the country's borders.

This damaged and delayed our work in the field. During January 2020, with a transitional presidency and a more peaceful political- social climate, we were able to continue our work.

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

We have installed simple camera trap stations along the biological corridor (Image 1). The camera traps were installed at different locations such as near rivers, streams, crop areas etc.

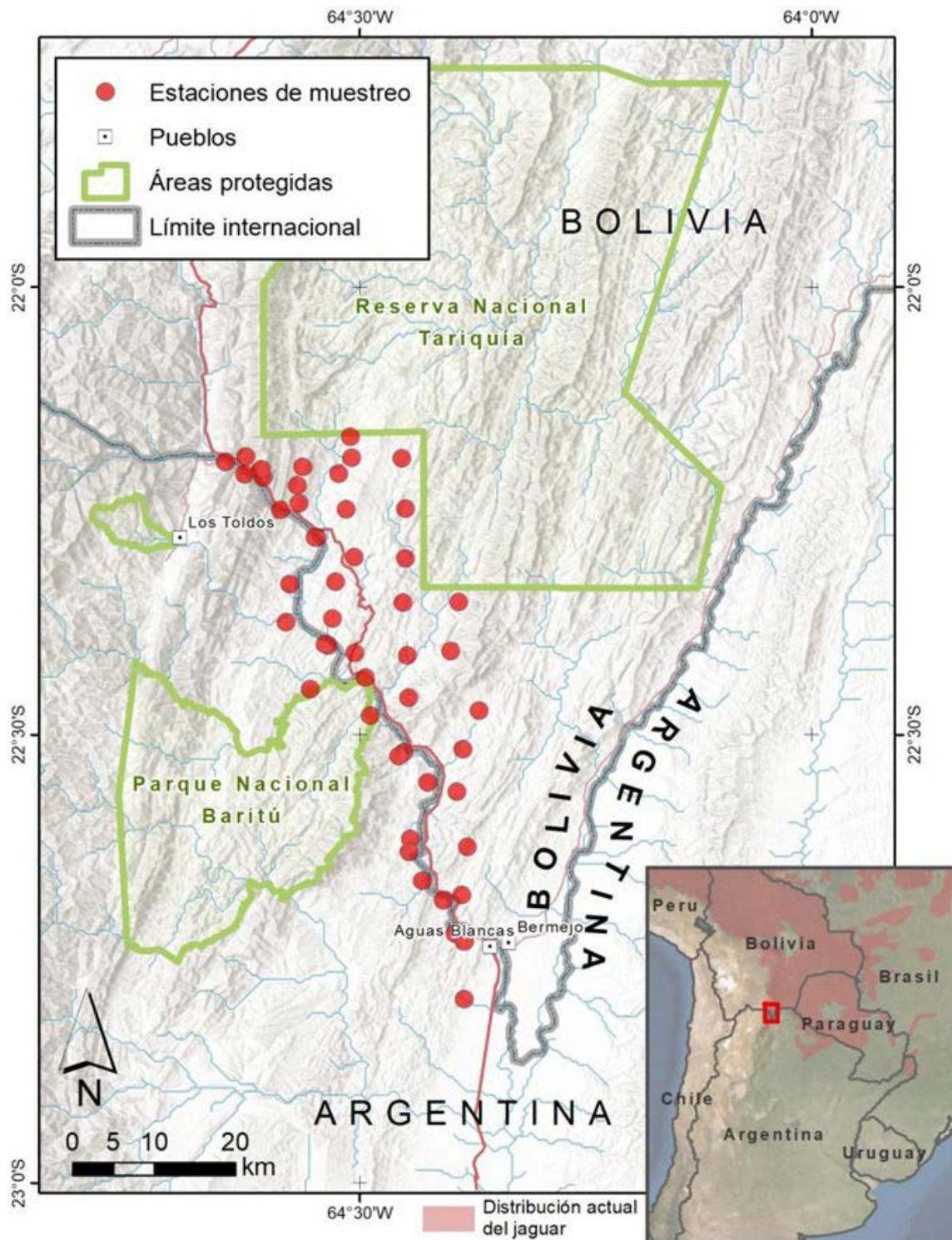
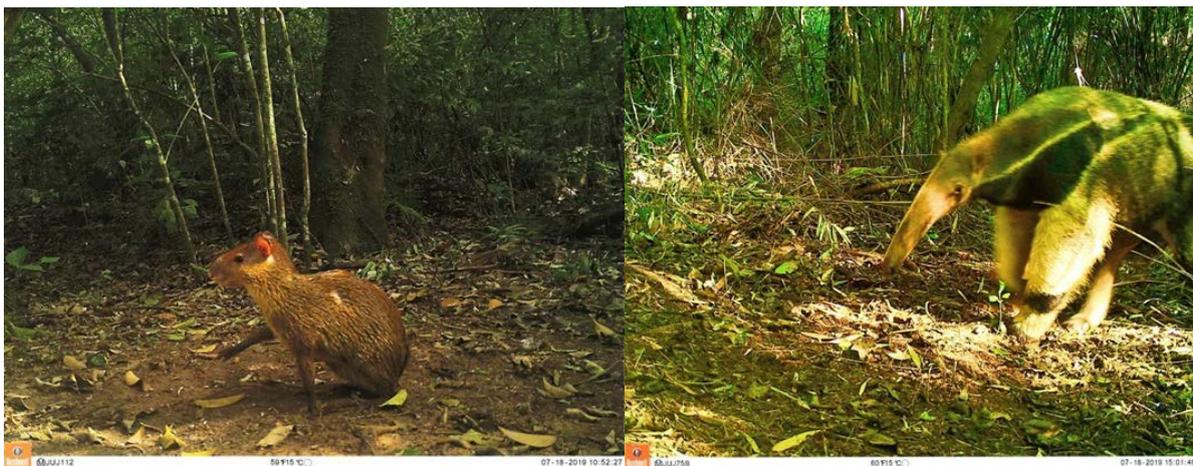


Figure 1. Study area. Camera trap stations along the biological corridor (red dot).

- Presence of the jaguar along the Baritú-Tariquía Ecological Corridor.



- Presence of their main prey along the Baritú-Tariquía Ecological Corridor.



Left: Scientific name: *Dasyprocta punctata*. Right: Scientific name: *Myrmecophaga tridactyla*.



Left: Scientific name: *Mazama guazoubira*. Right: Scientific name: *Lontra longicaudis*.



Left: Scientific name: *Cebus apella*. Right: Scientific name: *Pecari tajacu*.

- Functional connectivity between both PAs for jaguar conservation and their main prey.

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

The training of PA personnel in both countries, offered through workshops and with their active participation in the field work proposed in this project, allowed the establishment of cross-border collaborations for the conservation of the jaguar population and its habitat under the same criteria and in a coordinated manner.

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

Yes, there is a plan to continue this work and expand the area of study.

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

The results of this work will be shared in meetings with local communities located within the study area. They will also be published in the official bulletins of both protected areas and newsletters and as a scientific paper in an international peer conservation journal. Scientific Papers: An article is being writing now and we expect to publish it before December 2020.

**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 Rufford Foundation grant was used from February 2019-January 2020 according to the planned duration of the fieldwork. We spread out the use of funds over the full duration of the project.

**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
Rent vehicle for field trips	265	325	+60	We covered difference another grant.
Main research salary* 2 years	1200	1200		
Field expenses and food/day/ people*4 people	3600	4100	+500	We covered difference another grant.
Memory cards	900	900		
AA Batteries for traps camera*50 unids.	400	600	+200	
Bushnell trophy camera traps	1600	1600		
Field assistant	1035	1035		
Gasoline	1000	1800	+800	We covered difference another grant.
<b>Total</b>	<b>10000</b>	<b>11560</b>	<b>+1560</b>	

Note: The difference in items 1; 3 and 8: it is because during the month of January 2020 the field work was also carried out that we could not do during November and December 2019. For this it was necessary to include two more field assistants (6 in total). In addition to the vehicle we rented a motorcycle that facilitated logistics and allowed us to finish the field work. While the difference in item 5 is due to the price increase of the AA Batteries.

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

- The results of this study could serve as a starting point for the development of management of the biological corridor, which would indirectly impact the conservation of the jaguar.
- Initiate an environmental education campaign, aimed at the neighbours of the corridor, to explain to them why its existence is important and to convey information about the ecological importance of wildlife in general and of the jaguar in particular.
- Continue disseminating the results of this project in different areas: radio, TV, local newspapers, etc. and interact with different stakeholders so that our findings can be applied.

**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?**

Yes, very material produced in this investigation had the RF logo. The logo was displayed on every public presentation and written material and I intend to continue to do this in future works. I also promoted the RF logo at the presentations I had to perform before a university public.

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

<b>FULL LIST OF ALL THE MEMBERS OF OUR TEAM AND THEIR ROLE IN THE PROJECT</b>	
<b>The multinational team of researchers and conservationists</b>	<b>Role in the project</b>
Jaguar in the fringe	To provide assistance in carrying out this project, providing technical and field assistance
The National Parks Administration	This administration has particular interest in this project because they are designing management plans for protected areas and want to incorporate local actors as partners in planning and implementation.
Ph.D. <b>Pablo G. Perovic</b> Regional Coordinator for the Jaguar National Natural Monument, National Parks Administration. His researched focused on jaguars in a Landscape with Human Influence. He specializes in conflicts between wildlife and human activities. He is a member of two scientific societies: Andean Cat Alliance (AGA) and Cat Specialist Group (IUCN)	Research advisor

<p>Ph.D. <b>Carlos De Angelo</b>: Institute of Subtropical Biology (IBS). He has extensive experience in habitat availability and connectivity analysis for jaguars.</p>	<p>Research advisor</p>
<p><b>Maximiliano García</b> (Salta-Argentina)  <b>Juan José Saravia</b> (Salta-Argentina)  <b>Guillermo Benítez</b> (Salta- Argentina)  <b>Carlos Gómez</b> (Salta- Argentina)  <b>Alejandro Figueroa</b> (Tucumán-Argentina)  <b>Richard Orellana</b> (Salta-Argentina)  <b>Gregorio Pantoja</b> (Salta-Argentina)  <b>Kenny Ure</b> (Bogotá-Colombia)  <b>Eladio Pérez</b> (Tarija- Bolivia)  <b>Claudia Oller</b> (Tarija-Bolivia)  <b>Felipe Areco</b> (Tarija-Bolivia)  <b>Rubén Ramírez</b> (Tarija- Bolivia)  <b>Atanacio Irahola</b> (Tarija-Bolivia)  <b>Demetrio Ortega</b> (Tarija-Bolivia)</p>	<p>Young researchers, PAs staff from Argentina and Bolivia and field assistants conservationists.</p>

**12. Any other comments?**

We thank the Rufford Foundation for the support received.